

BEFORE THE COUNCIL OF THE
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF APPROVING THE) RESOLUTION NO. 88-896
FY 1989 UNIFIED WORK PROGRAM)
) Introduced by the Joint
) Policy Advisory Committee
) on Transportation

WHEREAS, The Unified Work Program describes all
federally-funded transportation planning activities for the Portland/
Vancouver metropolitan area to be conducted in FY 1989; and

WHEREAS, The FY 1989 Unified Work Program indicates federal
funding sources for transportation planning activities carried out
by the Metropolitan Service District, Intergovernmental Resource
Center of Clark County, the Oregon Department of Transportation,
Tri-Met and the local jurisdictions; and

WHEREAS, Approval of the FY 1989 Unified Work Program is
required to receive federal transportation planning funds; and

WHEREAS, The FY 1989 Unified Work Program is consistent
with the proposed Metropolitan Service District budget submitted to
the Tax Supervisory and Conservation Commission; now, therefore,

BE IT RESOLVED,

That the Council of the Metropolitan Service District
hereby declares:

1. That the FY 1989 Unified Work Program is approved.
2. That the Transportation Improvement Program is amended
to increase the Interstate Transfer allocation to the Metro trans-
portation planning by \$50,000.
3. That the FY 1989 Unified Work Program is consistent
with the continuing, cooperative and comprehensive planning process
and is given positive Intergovernmental Project Review action.

4. That the Metropolitan Service District Executive Officer is authorized to apply for, accept and execute grants and agreements specified in the Unified Work Program.

ADOPTED by the Council of the Metropolitan Service District this 28th day of April, 1988.



Mike Ragsdale, Presiding Officer

KT/sm
5348C/453
03/28/88

CONSIDERATION OF RESOLUTION NO. 88-896 FOR THE
PURPOSE OF APPROVING THE FY 1989 UNIFIED WORK
PROGRAM (UWP)

Date: March 25, 1988

Presented by: Andy Cotugno

PROPOSED ACTION

This resolution would: 1) approve the UWP containing the transportation planning work program for FY 1989, and 2) authorize the submittal of grant applications to the appropriate funding agencies.

TPAC and JPACT have reviewed the UWP and recommend approval of Resolution No. 88-896.

FACTUAL BACKGROUND AND ANALYSIS

The FY 1989 UWP describes the transportation planning activities to be carried out in the Portland/Vancouver metropolitan region during the fiscal year beginning July 1, 1988. Included in the document are federally funded studies to be conducted by Metro, Intergovernmental Resource Center of Clark County (IRC), Tri-Met, the Oregon Department of Transportation (ODOT), and local jurisdictions. Adoption of this resolution begins the third year of the overall direction and funding established in the five-year Prospectus, adopted in May 1986, and the specific work program for FY 89. This work program is for the third of the four-year commitment of funding from ODOT, Section 9 and the Interstate Transfer Regional Reserve. It includes an increase in ODOT and Interstate Transfer funding from \$100,000 to \$150,000 due to recent federal funding cuts. Approval of the work program accomplishes the annual required approval for use of these funds.

The UWP matches the projects and studies reflected in the proposed Metro budget to be submitted to the Tax Supervisory and Conservation Commission.

Approval will mean that grants can be submitted and contracts executed so work can commence on July 1, 1988, in accordance with established Metro priorities.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends approval of Resolution No. 88-896.

DRAFT



FY '89

Unified Work Program

Transportation planning in the Portland-Vancouver Metropolitan area

Metropolitan Service District
Intergovernmental Resource Center of Clark County
Oregon Department of Transportation
Tri-Met

April 1988

METRO

REGIONAL TRANSPORTATION PLANNING
IN THE PORTLAND-VANCOUVER METROPOLITAN AREA

FISCAL YEAR 1989 UNIFIED WORK PROGRAM

METROPOLITAN SERVICE DISTRICT
TRI-COUNTY METROPOLITAN TRANSPORTATION DISTRICT
CLARK COUNTY INTERGOVERNMENTAL RESOURCE CENTER

TABLE OF CONTENTS

PAGE

OREGON PORTION

METRO:

Regional Transportation Plan: Update and Refinement	1
Public-Private Task Force of Future Transit Finance.	2
Southeast Corridor Study	4
Bi-State Transportation Study.	6
Phase I Alternatives Analysis.	7
Data, Growth Monitoring and Forecasts.	9
Travel Model Refinement.	11
Technical Assistance	13
Banfield After Assessment.	15
Transportation Improvement Program	17
Coordination and Management.	19
ODOT Planning Assistance	20

TRI-MET:

Efficiency Planning.	TM-1
Transit Performance Analysis.	TM-1
Transit Service Evaluation Program (TSEP)	TM-3
Automated Customer Contact Report System.	TM-5
Labor Productivity Analyses	TM-6
Information Systems Planning	TM-8
Management Information and Control Planning	TM-8
Financial/Economic Forecasting and Planning	TM-9
Maintenance Management Information Systems Planning	TM-11
Operations Information Program.	TM-13
Project Planning	TM-15
Capital Program Planning.	TM-15
Westside Light Rail Project	TM-17
Service Planning, Analysis and Evaluation.	TM-20
Service Development Planning.	TM-20
Market Segmentation Analysis.	TM-21
Market Evaluation	TM-22
Suburban Transit Plan	TM-23
Special Area Planning.	TM-24
Civil Rights Planning	TM-24
Privatization	TM-26
Special Needs Transportation Planning	TM-28
Physical Abilities/Medical Standards Project.	TM-29

TABLE OF CONTENTS

PAGE

TRI-MET:

Long-Range Planning	TM-30
Strategic Planning	TM-30
TDP Annual Update.	TM-32
Program Administration.	TM-33
FY 1989 Unified Work Program Funding Summary	

WASHINGTON PORTION

OREGON PORTION

I. A. REGIONAL TRANSPORTATION PLAN: UPDATE AND REFINEMENT

The adopted RTP provides the region with a comprehensive policy and investment blueprint for an effective long-range transportation system. To ensure that the RTP is up to date and reflective of current economic, demographic and growth trends, periodic amendments are necessary.

Program Objectives:

1. Develop and evaluate travel trends for 2010 and identify transit and highway improvements to be incorporated in the RTP.
2. Ensure consistency of the RTP with Oregon land use laws; coordinate RTP amendments with local jurisdiction public facility plans; review consistency between the RTP and local comprehensive plans; initiate local or regional amendments as needed; assist in completing the UGB periodic review relative to transportation system impacts; assist Multnomah County, Clackamas County and Washington County in evaluating consistency of the I-84/U.S. 26 Connector, Sunrise Corridor and Western Bypass with land use requirements.
3. Provide support to Tri-Met in updating the Five-Year Transit Development Plan; define required RTP amendments accordingly.
4. Evaluate transportation funding options in conjunction with the JPACT Finance Committee; provide support to various business and neighborhood associations in reviewing transportation plans, priorities and funding options.
5. Refine information on RTP costs and revenues; develop a computerized data base of RTP project costs that is integrated with the TIP.

Products:

1. 1988 and 1989 RTP updates.
2. Computerized file of RTP project costs and revenues.

Expenses:

Metro: Personnel	\$122,242
M & S	7,000
TOTAL	<u>\$129,242</u>

Revenues:

88 PL/ODOT	\$ 25,000
ODOT	43,926
89 Sec. 8	48,253
88 Sec. 8	12,063
Metro Match	0
TOTAL	<u>\$129,242</u>

I. B. PUBLIC-PRIVATE TASK FORCE OF FUTURE TRANSIT FINANCE

This study was begun in FY 1988 for the purpose of identifying innovative financial strategies to fund transportation projects, particularly transit. Recognizing the need to include the private sector in planning for the region's future transit needs, the Task Force was charged with developing private funding mechanisms for implementation of priority transit projects and review of public sector funding. Emphasis was to be placed on the 10-year priority program developed by JPACT.

Program Objectives:

1. Establish a public-private framework or model which can be used to maximize financial backing for regional transitway projects. This will be used as a framework to identify local government and private sector financial commitments to demonstrate a stable and dependable source to construct, maintain and operate the system. The goal will be to identify private funding sources which will contribute to a higher percentage of the capital costs. Detail work on each corridor will not be the focus. Instead, it will focus on establishing the benefits of the different components of the transit system and recommending appropriate private funding models.
2. Establish alternative concepts for suburban transit service. Examine alternative concepts with private sector participation in the delivery of transit service, including being the provider of transit service in suburban areas.
3. Establish mechanisms for public-private partnerships to be used to fund transit improvements. This will be used as a framework to identify and construct incremental transit improvements in the region, which are operationally feasible.

Products:

- *1. Overview of transportation system, plan, priorities, growth assumptions, costs and revenues.
- *2. Define framework and methodology for evaluating benefits of transit to state, region, local area and private sector.
- *3. Inventory and present financial models, their application and revenue potential.

* Completed in FY 1988.

- *4. Review system component in more detail including sub-urban service and cost and central city operations and cost.
 5. Evaluate benefits of each transit corridor.
 6. Evaluate funding options relative to benefits for each corridor.
 7. Recommend funding options for capital and operating costs for each corridor.
- Merge costs and benefits of each corridor with a generalized assessment of the balance of the system.
8. Define institutional and legal barriers to implementing financial options.
 9. Final Task Force recommendations on public and private sector finance; delineate next steps for implementation.
- * Completed in FY 1988.

Expenses:

Metro: Personnel	\$ 25,000
M & S	90,000
Portland: Personnel	10,000
TOTAL	<u>\$125,000</u>

Revenues:

FY 88 Sec. 8	\$ 80,000
OR-08-0054	
Portland Match	<u>20,000</u>
FY 89 Sec. 8	20,000
Metro Match	<u>5,000</u>
TOTAL	<u>\$125,000</u>

I. C. SOUTHEAST CORRIDOR STUDY

The adopted RTP recognized several outstanding transportation issues in the Southeast Corridor extending from the I-5/I-405 loop to U.S. 26 east of Boring. Begun in 1987, this study will identify, evaluate and define the effects of different transportation investments and policies in the Corridor to address specific issues, and, upon adoption by the Policy Committees after public hearings, recommend improvement strategies for inclusion in affected state, regional (RTP) and local plans.

Program Objectives:

1. Continue analysis of transportation alternatives to minimize excessive traffic impacts on Johnson Creek Boulevard between S.E. McLoughlin Boulevard and S.E. 45th in accordance with the following principles:
 - To identify methods to address the transportation needs of the area, particularly the east-west traffic pattern between I-205 and McLoughlin Boulevard;
 - To meet the needs of both existing and planned land use patterns;
 - To protect existing residential and environmentally sensitive areas;
 - To ensure problems existing in parts of the area are not simply transferred to other areas; and
 - To identify an acceptable truck routing pattern.

The study will address at a minimum the area bounded by Holgate, I-205, Highway 224 and the Willamette River.

2. Coordinate Southeast Study with ODOT's project development and preliminary engineering for the McLoughlin/224/212 Corridor from downtown Portland to U.S. 26 to ensure consistency between proposed improvements in that corridor with plans for serving subregional traffic problems in the Johnson Creek Corridor.
3. Develop improvement strategy to provide Willamette River capacity needs based on evaluation of the adequacy of the Sellwood and Ross Island Bridges for serving traffic demand. Ensure that the capacity of the surrounding highway system is consistent with any river crossing improvements and take into consideration recommendations for serving Highway 224/212 and Johnson Creek Corridor traffic. Consider the adequacy of existing bridges, options for upgrading or replacing existing bridges and new bridge location alternatives (ODOT and Multnomah County will be principally responsible for providing bridge project design and cost information).

4. Analyze the impacts of a major transit service expansion in the study area, particularly as it impacts traffic problems in the Johnson Creek Corridor, the McLoughlin/224/212 Corridor, and across the Sellwood and Ross Island Bridges. Provide support to the Phase I Alternatives Analysis as it relates to transit investments between Milwaukie, Oregon City and Clackamas Town Center.
5. Complete and distribute reports documenting the analyses, evaluations, conclusions and recommendations of the Technical Advisory Committees on the preferred investment strategies and policies.
6. Staff citizen advisory committees, neighborhood meetings, public hearings and deliberations on recommended strategies and policies.
7. Develop final reports and transmit recommendations of the Policy Committees to affected state and local jurisdictions for inclusion in their plans.
8. Amend adopted RTP to include final recommendations of the study.

Products:

1. Preliminary staff reports and Final Reports documenting analysis, evaluation of alternatives and project recommendations.
2. Recommendation for inclusion in RTP and other pertinent state and local plans.

Expenses:

Metro: Personnel	\$105,176
M & S	
TOTAL	<u>\$105,176</u>

Revenues:

FY 89 Sec. 8	\$ 16,000
FY 89 (e) (4) - FHWA	28,822
FY 87 (e) (4) - UMTA	40,000
ODOT	4,208
Metro Match	9,872
ODOT Match	6,274
TOTAL	<u>\$105,176</u>

I. D. BI-STATE TRANSPORTATION STUDY

Program Objective:

Concern has been raised regarding future capacity deficiencies across the Columbia River between Portland and Clark County, Washington. In addition, several proposals have been suggested to address this deficiency, including a possible extension of the Westside Bypass north to I-5 in Clark County a possible new bridge in the vicinity of Troutdale and Camas and LRT in the I-5 Corridor to Vancouver. Metro, in cooperation with Oregon and Washington jurisdictions, will undertake a preliminary evaluation of 2010 travel demands and seek jurisdictional and public input on the issues to be addressed in a comprehensive study of possible alternatives.

Product:

Identification of alternatives to be considered and issues to be evaluated together with a work plan for a comprehensive study to be undertaken in FY 1990.

Expenses:

Metro: Personnel

\$15,000

TOTAL

Revenues:

FY 89 PL/ODOT

\$15,000

TOTAL

\$15,000

I. E. PHASE I ALTERNATIVES ANALYSIS

Program Objectives:

1. Complete the assessment of the remaining transitway corridors identified in the RTP for which a Phase I analysis has not yet been completed. These include: a) Sunset LRT extensions; b) Milwaukie LRT extensions; and c) I-205 LRT extensions. On the Eastside, the feasibility of the following may be evaluated: a) Milwaukie to Oregon City via McLoughlin; b) Milwaukie to Lake Oswego; and c) Clackamas Town Center to Oregon City via I-205. On the Westside, the following may be evaluated: a) Beaverton to Tigard or Tualatin; b) Beyond 185th to central Hillsboro; and 3) Sunset Highway/Cornell Road to Hillsboro.
2. Identify alignments to be protected for corridors not included in "Priority LRT System" but desired to be retained for further consideration.
3. Update 2005 and 2010 forecasts for each LRT corridor following results of travel model refinement to determine whether or not LRT has different transit ridership characteristics than the bus system. Using revised average daily ridership forecasts by trip purpose, estimate average weekly and annual ridership for each line to reflect weekend volumes.

Relation to Previous Work:

The Regional LRT System Plan Scope of Work (approved in FY 1983) has served as an overall guide for the Regional LRT studies, under which studies in the Milwaukie, Bi-State, I-205, Barbur and Macadam corridors have been undertaken. Prior to initiating further full Phase I studies for remaining transitway corridors identified in the RTP, a "sketch" assessment was performed to limit the full "Phase I" work program assessment to those corridors found to be most promising.

In the fall of 1987, JPACT evaluated the work which had been completed to that time and determined that the Westside, Milwaukie and I-205 corridors have the highest priority and should be advanced to construction in a 10-year time frame. The Barbur and I-5 corridors were determined to be a lesser priority and recommended to be constructed in a 20-year time frame. The Macadam Corridor need was determined to be beyond the 20-year time frame.

Products:

1. Alignment descriptions for those corridors not part of the priority system, but still considered feasible in the long term for inclusion in local comprehensive plans.

2. Initiation of the I-205 buslane withdrawal and transfer to LRT.
3. A report updating 2005 and 2010 travel forecasts highlighting average weekday, weekend and annual ridership characteristics of each line.

Responsibilities:

Metro is responsible for the overall conduct of the study, coordination of the Oregon decisions, Oregon public involvement, technical analysis associated with travel forecasts, impact analysis and cost-effectiveness evaluation.

Tri-Met is responsible for definition of alternatives including engineering analysis, capital costing and operations costing.

Close coordination will take place with the City of Portland for work products in downtown Portland.

Portland, Clackamas County, Washington County, Multnomah County, ODOT and the Port of Portland will participate in the Technical Advisory Committee(s) and assist with public involvement as appropriate.

Expenses:

Metro: Personnel	\$64,574
M & S	<u>3,000</u>
TOTAL	\$67,574

Revenues:

FY 89 (e) (4)	\$ 7,500
FY 83 (e) (4) (09-9008)	\$23,817
FY 85 (e) (4) (09-9010)	26,120
Metro Match	<u>10,137</u>
TOTAL	\$67,574

II. A. DATA, GROWTH MONITORING AND FORECASTS

Regional Data Base Maintenance

Objectives:

1. Current and past data: update housing, population and employment data to 1987.
2. Forecasts: Forecasts will be produced for both the long-range (2010) and short-range (five-year) futures. This will be the conclusion of a major effort to produce a long-range forecast update every fifth year, involving representatives from both the public and private sector. In the years between the five-year updates, a minor extension of the long-range forecast to the next year is prepared. The forecasts will be to the geographic areas of region, county, and census tract, with estimates to traffic zone for transportation planning purposes. A 10- and 15-year future will be interpolated and a "buildout" analysis provided. Work that carries over into FY 1989 will include splitting subregional forecasts into small area zones and preparation of documentation.
3. G.I.S.: Install a computerized geographic information system with initial priority on updating vacant land that is designated for commercial or industrial use in local zoning or comprehensive plans. Future emphasis will shift to vacant residential lands and existing land uses in generalized categories. This activity will involve acquisition of necessary computer hardware and software.
4. Provide socio-economic data and forecasts to local jurisdictions within the following budgets:

Portland	\$12,996
Washington County	7,787
Clackamas County	5,575
Multnomah County	4,309
Port of Portland	3,833
Tri-Met	2,500
ODOT	2,500
TOTAL	\$39,500

5. Computer Replacement: Due to age and increasing maintenance cost, the current Pixel computer will be replaced with a new multi-user UNIX system.
6. Travel-to-Work Census: Develop file of employer locations to provide to the U.S. Census Bureau for geocoding survey responses to the 1990 travel-to-work census.

Relation to Previous Work:

A continuation of the annual work required to maintain a satisfactorily updated data base for both transportation and general planning.

Products:

Computer files and hardcopy of the following sets of information:

1. 1987 Updates by Traffic Zones

Persons - by age and sex
Households - by size and income
Dwelling Units - by type
Employees - by place of work by SIC

2. 2010 Forecasts by Traffic Zones

Persons - by age and sex
Households - by size
Dwelling Units - by type
Employees - by place of work by retail/non-retail

3. A 5, 10 and 15-year interpolation and a "buildout" estimate of the data in 2 (above) will be compiled for the staging analysis, the five-year TDP, the regional 10-year priority program and for the 15-year horizon required for LRT studies.

4. Geographic Information System data base defining vacant commercial and industrial land by traffic zone, census tract, city and county.

5. Computerized file of employer locations by census tract and traffic zone for the 1990 travel-to-work census.

6. 1987 base maps.

7. Monthly building permit reports, quarterly development trends reports and annual regional fact book.

Expenses:

Metro:
Personnel \$349,429
M & S/Capital 62,545
TOTAL \$411,974

Revenues:

FY 89 PL/ODOT \$ 43,516
FY 89 Sec. 8 61,747
FY 89 (e) (4) (FHWA) 45,647
FY 89 Sec. 9 2,000
ODOT 2,500
Metro 256,064
Tri-Met Match 500
TOTAL \$411,974

II. B. TRAVEL MODEL REFINEMENT

Objectives:

1. Maintain an up-to-date travel-forecasting model based on project changes, land use changes, and projected transit and highway investments.
2. Continue to improve and refine the travel-forecasting models, as appropriate, to enhance the decision-making process served by the model outputs.

Relation to Previous Work:

This is a continuing process to improve travel modeling and forecasting for this region. The major effort in FY 87 is to revise the mode split model and refine the level of detail for traffic forecasts. Metro staff will assist Tri-Met's consultants in developing a route patronage forecasting model.

Products:

1. Results of the 1988 travel behavior surveys will be published in a report.
2. Particular effort will be placed on development of an integrated route patronage model for Tri-Met and on improved modeling of park-and-ride demand.
3. A literature search of modeling techniques and improved method of forecasting "commercial" traffic.
4. Analyze changes in travel behavior and, if necessary, update the transit mode split model to incorporate an LRT bias; coordinate changes with UMTA; publish report documenting LRT ridership characteristics, differences by trip purpose to bus ridership and potential impact on parking requirements around suburban stations.
5. Documentation of updated models to include model description, changes from previous models, description of input variables and model co-efficient, documentation of calibration to transit ridership and traffic count data.
6. Revisions in models as necessary to more accurately reflect suburban transit demands.
7. Standardization of traffic count methodology used by ODOT, cities and counties and publications of regional count data.

Expenses:

Metro: Personnel	\$142,951
M & S	<u>10,500</u>
TOTAL	<u>\$153,451</u>

Revenues:

FY 89 PL/ODOT	\$ 18,451
FY 89 ODOT	47,500
FY 89 Sec. 9	66,000
FY 89 Sec. 8	4,000
Tri-Met Match	9,375
Metro Match	<u>8,125</u>
TOTAL	<u>\$153,451</u>

II. C. TECHNICAL ASSISTANCE

Program Objective:

Provide travel analysis and forecasts as needed by local agencies and jurisdictions.

Relation to Previous Work:

This is an ongoing service which has been provided to member jurisdictions on a request basis.

Products:

1. Metro assistance for
 - Staff Assistance to obtain data and forecasts and/or evaluate a particular transportation problem
 - Computer Usage
 - Training
2. Technical Assistance to the jurisdictions will be based on a budget allocation as follows:

Portland	\$23,800
Multnomah County	32,900
Washington County	39,250
Clackamas County	35,175
Port of Portland	7,000
Tri-Met	15,000
ODOT	17,500
	<hr/>
	\$170,625

Requests for services must be made by the appropriate TPAC members; suburban jurisdictions should channel their request through the TPAC representative in the cities of that county. Includes increased budget of \$25,000 for each of these counties through a special grant.

3. Provide support to Sunset Highway and LRT preliminary engineering efforts to include:
 - a. Assistance to ODOT to refine Sunset Highway traffic forecasts consistent with design characteristics of proposed highway improvements.
 - b. Assistance to Portland and Washington County to identify improvements required to Cornell Road and Barnes/Burnside consistent with proposed Sunset Highway and LRT improvements.

Proposed Budget: \$25,000

Expenses:

Metro: Personnel	\$182,225
M & S	29,500
TOTAL	<u>\$211,725</u>

Revenues:

FY 89 PL/ODOT	\$ 71,125
FY 88 Sec. 9	12,000
ODOT TA Expansion	16,100
89 (e)(4) (FHWA)	75,000
Tri-Met Match	3,000
Metro	7,000
ODOT	<u>27,500</u>
TOTAL	<u>\$211,725</u>

II. D. BANFIELD AFTER ASSESSMENT

Program Objectives:

1. Determine and document the impacts of both the LRT and the Banfield Freeway improvements on existing highway and transit travel in the Banfield corridor.
2. Determine and document mode-specific changes in travel behavior that can be attributed to light rail.
3. Update the travel models to reflect travel behavior evidenced in the travel behavior surveys carried out as a part of this project (discussed in detail under model refinement).

Relation to Previous Work:

This project will enable the region to obtain a fuller understanding of the impacts of the Banfield LRT which is invaluable in defining LRT benefits as well as in helping produce more accurate travel forecasts in other rail corridors.

This report will build on the analysis completed and documented in two reports:

1. "The Banfield Assessment Program -- Travel Conditions Before Light Rail," Metro, December 1987; and
2. "Development Impacts of the Banfield Light Rail," Tri-Met, March 1987.

Products:

1. Complete compilation of 'after' data for development of the before-and-after analysis; this includes:
 - An on-board origin-destination passenger travel survey -- spring of 1988, to be conducted by Tri-Met (see Tri-Met section).
 - A household travel behavior survey -- spring of 1988, Tri-Met (Banfield corridor only).
 - Tri-Met ridership census/counts (see Tri-Met section).
 - Corridor traffic counts, spring 1988 (ODOT).
 - Corridor aerial photographs, 1988 (ODOT).

It is important that the details of both the content and the conduct of the above data-gathering activities

be coordinated by Metro staff to ensure that there is a sufficiency for the analyses.

2. A Banfield corridor 'Before-and-After' report, documenting both travel conditions (highway and transit counts and travel patterns) and travel behaviors, (before, after and changes). This document will also contain an analysis and evaluation. It is also intended that this report address, in general, the economic development impacts of LRT.
3. The addition of travel behavior changes attributable to LRT to the regional travel models.

Responsibilities:

Metro will provide overall project coordination and compile and produce a Banfield "Before-and-After" report.

Expenses:

Metro: Personnel	\$29,500
M & S	<u>3,000</u>
TOTAL	<u>\$32,500</u>

Revenues:

FY 89 (e) (4) (UMTA)	\$27,625
Metro Match	2,375
Tri-Met Match	<u>2,500</u>
TOTAL	<u>\$32,500</u>

III. A. TRANSPORTATION IMPROVEMENT PROGRAM

The TIP is a federally required document setting forth funding for transportation improvements identified in the RTP, including project length, termini, estimated total costs, federal funds to be obligated by program year, identification of recipient and state and local agencies responsible for carrying out the project.

Program Objectives:

1. Allocate available federal funding for the program year by establishing project priorities and individual jurisdiction budgets. Included will be the incorporation of ODOT's Six-Year Highway Improvement Program and development of the FAU funding program.
2. Monitor funding status of applicable federal funds including project authorizations and obligations. Major emphasis will be placed on Interstate Transfer funds (highway and transit), Urban Mass Transportation Administration (UMTA) grants and Federal-Aid Urban funds. Maintain overall status of the above by clear distinction of: UMTA (e)(4) grants broken into Banfield and all other; highway and transit by jurisdiction; and UMTA grants set forth under the UMTA Act.
3. Adopt the FY 1989 TIP Annual Element update including the assessment of air quality conformity and compliance with UMTA requirements for involvement of the private sector (October 1985) and for UMTA requirements associated with the financial capacity analysis.
4. Publish monthly and quarterly TIP updates.
5. Provide generalized support to state and local jurisdictions on information on project funding and obligations.

Relation to Previous Work:

TIP updates and ongoing project priority setting.

Product:

1. FY 1989 TIP with "certification" that federal requirements are being met and UMTA privatization requirements are being met.

Expenses:

Metro: Personnel	\$115,000
M & S	5,000
TOTAL	<u>\$120,000</u>

Revenues:

FY 89 PL/ODOT	\$ 31,908
FY 89 Sec. 8	60,000
ODOT Direct	13,092
Tri-Met Match	5,000
ODOT Match	5,000
Metro Match	5,000
TOTAL	<u>\$120,000</u>

III. B. COORDINATION AND MANAGEMENT

Program Objectives:

1. Internal management of the Transportation Department toward implementation of the Unified Work Program (UWP).
2. Provide support to various Metro committees; coordinate with ODOT, Tri-Met and local jurisdictions.
3. Provide documentation to Federal Highway Administration (FHWA) and UMTA of departmental activities, including Intergovernmental Project Review, monthly and quarterly progress reports.
4. Provide for staff development through performance evaluations and training.

Relation to Previous Work:

This work element is ongoing and carries over each year.

Products:

1. FY 1989 Unified Work Program.
2. Execution and monitoring of various pass-through agreements.
3. Required documentation to FHWA and UMTA.
4. Monthly progress reports to the TPAC.
5. Quarterly progress and financial reports to UMTA and ODOT.
6. Minutes, agendas and documentation.
7. Management of department staff time, budget and products.
8. Interdepartmental coordination.
9. Periodic review with FHWA and UMTA on UWP progress.

Expenses:

Metro: Personnel	\$101,074
M & S	9,000
TOTAL	<u>\$110,074</u>

Revenues:

FY 89 PL/ODOT	\$ 35,641
FY 89 Sec. 8	13,620
FY 89 (e) (4) (FHWA)	40,406
Metro Match	20,407
TOTAL	<u>\$110,074</u>

III. C. ODOT PLANNING ASSISTANCE

Program Objectives:

Major accomplishments for FY 1989 by the Metro/Region Branch include supporting Metro and other agencies in the RTP update. Major assistance emphasis will also be given to the local plan updates and Southeast Corridor Study. Work activities will include:

FY 1989 HPR PROGRAM

1. Access Management Study support (Beaverton).
2. Eastside Plan Update.
3. Traffic count updates as needed for model refinement, subarea studies and the Banfield Before-and-After study.
4. Local land use development and traffic impact reviews.
5. Participate in other subarea analyses such as Tigard, South Waterfront and East County subareas.
6. Transit station and park-and-ride developmental reviews.
7. Small city transportation analysis (Milwaukie, West Linn, Forest Grove).
8. Continue state/City of Portland highway jurisdictional study.
9. Policy and technical coordination with regional planning, local agencies, TPAC, the Joint Policy Advisory Committee on Transportation (JPACT), State of Washington regional planning (Regional Resource Center), Washington County Transportation Coordinating Committee (WCTCC), Clackamas County Transportation Committee, East Multnomah Transportation Committee and coordination of administration of programs with Metro.
10. Participate in the Regional Bi-State Transportation Analysis, Sunset Highway Analysis, I-205 LRT, Regional LRT Study, Forecast Updates, Banfield After Study.

Expenses:

ODOT: Personnel	\$168,100
M & S	11,000
TOTAL	<u>\$179,100</u>

Revenues:

HPR/ODOT	\$179,100
----------	-----------

AC/sm
5032C/446-10

I. EFFICIENCY PLANNING

A. Transit Performance Analysis

Program Objectives:

1. Development of quarterly performance reports.
2. Comprehensive peer group review that includes both bus and rail systems.
3. Continued quarterly analysis of route performance and the effects of service and fare changes on ridership.
4. Operator productivity analysis, including analysis of operator attendance, extraboard.
5. Ridership estimation, including a ridership survey of fare payment, analysis of fare survey, and continued refinement of light rail ridership estimation model.
6. Continued analysis of Tri-Met systemwide performance.

Relation to Previous Work:

1. Tri-Met's monthly performance reports provide data and performance measures for both the bus and light rail system, and serve ongoing agency efforts to improve productivity. Next steps are to provide a more thorough analysis of Tri-Met's performance through quarterly performance reporting.
2. Tri-Met has not conducted a peer group comparison of performance indicators for several years. It is important that we re-establish this effort, and also develop a new peer group that includes light rail properties. Recent peer group analysis of fare systems, attendance programs and agency budgets have proven useful to management.

Products:

1. Quarterly Performance Analysis Reports.
2. Peer Group Analysis.
3. Two or three reports annually on bus route performance.
4. Analysis of operator productivity, incentive programs, labor issues.

5. Accurate ridership estimation.

6. Ridership analysis from fare survey results.

Expenditures:

Tri-Met \$87,400

Revenues:

OR-90-2019	45,920
FY89 Sec. 9	24,000
Tri-Met	<u>17,480</u>
	\$87,400

I. EFFICIENCY PLANNING

B. Transit Service Evaluation Program (TSEP)

Program Objectives:

1. Develop new technical methods to improve schedule writing processes and efficiencies.
2. Study and assess feasibility of new technologies applicable to improving schedule reliability of lines.
3. Develop refined service standards applied towards improving ridership productivity.
4. Develop structured coordination process to provide improved awareness of TSEP.

Relation to Previous Work:

This effort continues and expands upon the work accomplished to date. In the area of new schedule writing technical tools, the Interactive Schedule Maker (ISM) project is progressing into final design phase. The ISM should become available, in prototypical form, to Schedule Writers towards the end of FY88. During the course of FY89 system implementation, user training and final modifications/refinements will occur.

In the area of new technologies for improving schedule reliability, (1) work will continue on adapting existing automatic passenger counting technology to provide on-time performance information, and (2) various potential automatic vehicle locating/monitoring technologies will be researched and evaluated. For FY89 this task will build upon preliminary investigative work already conducted. As part of this task it is anticipated that there may be some moderate consulting and materials expenditures, representing initial on-site small-scale testing of various technologies.

The areas of refined service standards and structured coordination have been identified as priority work tasks for the second half of FY88 and beyond.

Products:

1. Interactive Schedule Maker (ISM). (Computerized tool to assist schedule writers.)
2. Feasibility study, including cost/benefit analysis, regarding applicability and compatibility of Automatic Vehicle Location/Schedule Reliability System.

3. Coordinated TSEP process, including adopted service standards element, market research element, and financial impact element.

Expenditures:

Tri-Met \$145,000

Revenues:

OR-90-2017	\$15,000
FY89 Sec. 9	101,000
Tri-Met	<u>29,000</u>
	\$145,000

I. EFFICIENCY PLANNING

C. Automated Customer Contact Report System

Program Objectives:

1. Plan a database operating file of Tri-Met service that can be correlated to customer contact reports and field observations of daily service.
2. Plan an administrative process for identifying service problems and needs by using the database, establishing priorities for addressing the problems, and a procedure for timely resolution of the issues and response to internal and external audiences including customers and the general public.
3. Plan an administrative process and communication program that involves consumers and employees directly in quality assurance endeavors and trouble-shooting.
4. Plan a quality improvement program focusing on customer relations by front line employees.

Relations to Previous Work:

The Automated Customer Contact Report System will be substantially completed by July, 1988. Only the consulting services necessary for completion of the employee involvement element will carry over into FY'89.

Products:

1. An administrative process which will result in improved quality of service to the user of the system as well as improved response time to customers and management staff seeking information from the system.
2. Database operating profile of Tri-Met service quality with information from Customer Contact Reports, employee field observations, and daily service reports.
3. A plan for increased productivity in transit service and personnel through automation of daily service reports and field observations.
4. A quality improvement program through greater utilization of Tri-Met employees, especially front line employees in achieving quality assurance and customer satisfaction.

Expenditures:

Tri-Met \$20,000

Revenues:

OR-90-2019 \$16,000
Tri-Met Match 4,000
\$20,000

I. EFFICIENCY PLANNING

D. Labor Productivity Analyses

Program Objectives:

1. Analyze the impacts that incentive programs, family-oriented programs, and workers' compensation programs have on improving labor productivity.
2. Assess employees' needs regarding health/wellness programs, family-oriented services, and safety and training.
3. Conduct research, including peer group comparisons, of absenteeism/attendance programs, incentive programs, and workers' compensation cost control efforts.
4. Develop statistical cost/benefit studies that include recommended courses of action, specific areas identified as priority improvement areas, and implementation strategies.
5. Study impacts of labor agreement, casual and negotiated absence on MAX extraboard use and size.

Relation to Previous Work:

This effort continues and expands upon the work accomplished to date. The overall study is divided into five separate work elements:

(1) Family-oriented issues: for FY88, this element includes the administration of an employee needs survey, analysis of survey results, and development of recommended strategies presented to executive management. While it is anticipated that the majority of this element will be completed by the end of FY88, there will still be some carryover activity in the first quarter of FY89.

(2) Workers' compensation computerized analysis: This element includes using computerized micro-to-mainframe software systems to access our workers' comp data, thus permitting diagnostic, historical analyses. During the first half of FY88, activity on this element has been delayed due to technical and contractual uncertainties. The effort will intensify during the second half of FY88, but will necessitate a moderate carryover into FY89 in order to complete the project.

(3) Health/safety incentive issues: This element has progressed well during FY88 with a good amount of information researched and obtained. Studying the feasibility of

expanding our current attendance incentive program to include safety and/or health/wellness categories requires obtaining appropriate legal guidance and opinion, relative to any incentive program conforming to Bureau of Labor and Industry regulations. The additional time needed to deal with the associated legal ramifications requires that this element be carried forward into FY89.

(4) Operator productivity analysis: This work element (which includes researching other transit systems' operator attendance/discipline, incentive and reward programs, as well as Tri-Met's own historical operator productivity patterns) is also progressing well and should be substantially completed by the end of FY'88.

Products:

1. Statistical database profile and diagnostic analyses of workers' compensation claims patterns and tendencies that can be used by administrators.
2. Assessment of employees' needs and perceptions regarding family-oriented services, safety and training, and incentive programs.
3. Peer group based analysis of incentive programs, reward mechanisms and attendance/discipline efforts.
4. Comprehensive reports for each task element that include costs/benefits, recommendations, specific areas targeted for improvement and implementation strategies.
5. Report documenting present MAX extraboard practices and recommended action plan detailing optimum use and size.

Expenditures:

Tri-Met \$65,800

Revenues:

OR-90-2019	\$35,200
FY89 Sec. 9	17,440
Tri-Met	<u>13,160</u>
	\$65,800

II. INFORMATION SYSTEMS PLANNING

A. Management Information and Control Planning

Program Objectives:

1. Continue planning a computer applications portfolio that captures information needed to manage and make decisions. Emphasis is placed on applications that support strategic plans of the agency, that avoid or reduce costs, and that contribute to more efficient operations.
2. Implement selected computer applications that are cost effective and that give management the control necessary to adjust activities in specific areas to meet goals.

Relation to Previous Work:

Because of staffing limitations only a small number of computer applications can be identified and planned for implementation each year. Previous technical studies have facilitated the development of new computerized applications such as the Liability Tracking System, Fare Inspection System, Ticket and Pass Invoicing System, and Incentive Tracking System.

This project addresses the need to develop several new computer applications in addition to those developed earlier. These applications are in the area of ticket vending machine sales, light duty tracking, and accounting.

Products:

Review of the computer application portfolio.

Needs assessment, functional specifications, and programming specifications for applications selected for development. Specific applications will be evaluated and selected based upon identified needs.

Expenditures:

Tri-Met: \$83,000

Revenues:

OR-90-2019	\$20,000
FY89 Sec. 9	46,400
Tri-Met	<u>16,600</u>
	\$83,000

II. INFORMATION SYSTEMS PLANNING

B. Financial/Economic Forecasting & Planning

Program Objectives:

1. Support policy analysis by providing management with financial projections of policy alternatives. Policy areas supported would be: budget planning, five year financial forecast, additional revenue planning, labor cost projections, fare analysis and planning, long-range financial planning support for the Regional Transportation Plan, Transportation Development Plan, analytical support for labor negotiations, and support for Westside light rail capital and operating financial planning.
2. Continue refinement of financial and economic forecasting models. Build new labor rules into cost model.
3. In fulfillment of new UMTA requirements, develop a fully allocated bus route costing model. Improve peak/off-peak cost model.
4. Continue financial capacity analyses. Supplement analysis with financial capacity indicators in fulfillment of new UMTA requirements for Section 3 and 9 applicants.

Relation to Previous Work:

1. Tri-Met has developed several cost models under several grants. These include the financial forecasting system, a marginal cost model, and a peak/off-peak variable cost model. The development of a fully allocated bus route costing model would build on these efforts and would also fulfill new UMTA requirements for contracted service decisions.
2. Existing financial and economic forecast models were developed with assistance from Grants OR-90-2003 and OR-90-2005. This work both continues model refinement and also serves policy planning in on going agency efforts to plan and implement cost containment measures, to develop adequate local operating and capital funding, and to accurately assess Tri-Met's financial condition and five year financial capacity.

Products:

1. Five year financial and economic forecast reports used in budget planning, new revenue, planning, short range (TDP) planning.
2. Financial condition and financial capacity analysis.

3. Revenue estimates, including fare revenues and Westside funding.
4. Fully allocated cost model for bus route costing.
5. Financial analysis of legislative issues.
6. Two economic forecasts of payroll tax revenues, CPI, diesel fuel costs, self-employment and state in-lieu-of tax revenues.
7. Labor cost analysis:

Expenditures:

Tri-Met \$101,200

Revenues:

OR-90-2017	\$15,180
OR-90-2019	3,200
FY'89 Sec. 9	62,580
Tri-Met	<u>20,240</u>
	\$101,200

II. INFORMATION SYSTEMS PLANNING

C. Maintenance Management Information Systems Planning

Program Objectives:

1. Design and develop Staff Management Component of the Comprehensive Maintenance Management Information System for Bus Maintenance.
2. Continue the design and development of a comprehensive maintenance management information system to be completed with the following priorities in order to enhance the Rail Maintenance functions:
 - A. Traction Power
 - B. Right-of-Way Facilities
 - C. Non-Revenue Support Equipment
 - D. Lift Equipment
 - E. Fare Equipment
 - F. Staff Management

Relation to Previous Work:

The bus and rail vehicle history and inventory sub-system of the MMIS were implemented in Fall, 1986 (rail), and Spring, 1987 (bus). The Right-of-Way component of the MMIS will be implemented in February, 1987. Generally, implementation is followed by a period of adjustment and fine tuning.

The Staff Management component will be developed in late Spring 1988 with implementation expected approximately one year later (Winter, 1988).

The receipt of new buses in the Summer, 1988, will result in a more comprehensive use of the tracked component feature of the Fleet Management System requiring developmental work in the areas of component inventory and repair codes. The design and development of the right-of-way and staff management is an extension of the project which will integrate all of the many components of information inherent to a rail maintenance operation.

Products:

1. Major Component Tracking (Bus): The new buses will have all major components inventoried and tracked making available repair history and mileage information on those components. This information can be utilized for component life analysis.
2. The Staff Management Information System: Information on an employee's time, and seniority and position status will be captured. Retrieval of this information will greatly enhance management's ability to analyze loss time and complete labor distribution analysis.

3. Major component tracking (Rail): Activities include the further development of maintenance of way repair codes for fare and lift equipment, and traction power; development of procedures to track the movement of all rail system major components through their repair cycle, including the component history of repair.
4. Non-Revenue Vehicle Tracking: Major activities include the development of repair codes; inventory of non-revenue vehicles; development of preventive maintenance program. The result will be the ability to track non-revenue vehicle history in order to make better informed decisions on vehicle life, and replacement.
5. Rail Facility Tracking Activities: Activities include the development of repair codes preventive maintenance program for the rail operations and station facilities within the maintenance right-of-way.
6. Continue with the detailed design and program development of the right-of-way and staff management sub-systems of the rail maintenance information system. The right-of-way sub-systems will eventually automate maintenance scheduling and analysis for the fare, lift, traction power and support equipment as well as the right-of-way facilities. The staff management sub-system will provide information to do loss-time and labor distribution analysis.

Expenditures:

Tri-Met \$140,000

Revenues:

OR-90-2019	\$ 24,000
FY'89 Sec.9	88,000
Tri-Met	<u>28,000</u>
	\$140,000

II. INFORMATION SYSTEMS PLANNING

D. Operations Information Program

Program Objectives:

1. Study the operations informational needs of upper and middle management; locate as many sources of information as possible and develop report formats that are effective in aiding objective decision making and provide an accurate understanding of the transportation system's performance.
2. Study the feasibility of linking some of the various databases that contain operations information including the ability to share data and produce reports containing data collected by several departments.
3. Plan a program for systematically tracking the condition of passenger shelters, scheduling maintenance of shelters and responding to customer requests/complaints concerning shelters.
4. Study the application of new technologies including phone-mail, local area networks, and FAX to aid in the collection and distribution of operations information.

Relation to Previous Work:

Currently, separate bus and rail log activity reports are produced from data bases that reside in the separate dispatch centers. A third major data base is maintained in the customer services department which tracks calls received from outside Tri-Met. Each of these databases and several others within the agency often contain information on the same subjects such as vandalism reports, service problems or incident reports. To get a total picture of a particular problem is often difficult or impossible because of this fragmentation of information.

Products:

1. A plan for collecting, storing and distributing operations information utilizing as many data sources as possible.

2. Reformatted operations information reports that are available in an appropriate media and format to be as useful as possible to the end user.
3. A systematic program for tracking shelter conditions and their maintenance.

Expenditures

Tri-Met \$72,800

Revenues:

FY'89 Sec. 9	\$58,240
Tri-Met	<u>14,560</u>
	\$72,800

III. PROJECT PLANNING

A. Capital Program Planning

Program Objectives:

1. Coordinate the scheduling, funding, siting and conceptual design of Tri-Met's capital program with other jurisdictions and internally within the agency.
2. Prepare a short-term and long-term capital acquisition program for Tri-Met.
3. Prepare the capital components for the annual update of the TDP and the Strategic Plan.
4. Work with local jurisdictions on proposed transit centers, park-and-ride lots, transit priority measures, TSM measures, road improvements, and transportation plan revisions.
5. Develop a Capital Improvement Program process for annual updating.
6. Undertake a fleet mix study.
7. Develop methodology to prioritize park-and-ride sites and rank candidate projects.

Relation to Previous Work:

The capital program is prepared annually and revised as necessary throughout the year to meet updated requests and needs. Capital program components will also be included in the annual update of the TDP and the Strategic Planning Process.

In addition to preparing the annual capital budget, staff will be developing a total Capital Improvement Program (CIP) analysis process. This effort will track the long range costs of proposed capital projects and will predict the appropriate replacement schedule for on-going capital requirements. The CIP results will be incorporated into the FY'89-93 Transit Development Plan.

As in previous years, staff will combine project development work on new and emerging capital project proposals, continue technical participation in ongoing local and regional transportation plan revisions, and maintain a transit presence in the road development/improvement review process.

Staff will also be analyzing the types of complementary facilities that may be accommodated at or near transit facilities.

Products:

1. Annual Tri-Met capital budget.
2. Input to State and Federal capital grant applications.
3. Capital component of the TDP and the Strategic Plan.
4. Site and conceptual design work supporting documentation and local approvals for newly proposed projects.
5. Capital improvements, program process and report.
6. Transit revisions to regional and local jurisdictional plan updates.
7. Fleet mix study and report.
8. Report including priority methodology for park-and-ride lots and ranking of projects.

Expenditures:

Tri-Met \$175,500

Revenues:

OR-90-2019	\$ 12,000
FY'89 Sec. 9	128,400
Tri-Met	29,500
City of Portland	<u>5,600</u>
	\$175,500

III. PROJECT PLANNING

B. Westside Light Rail Project

Program Objectives:

The Westside LRT Project is the major outgrowth of Alternatives Analysis of the Westside Corridor Project. There are four major objectives of the Westside LRT Project:

1. Undertake engineering studies sufficient to specify a final alignment, profile and cost estimate.
2. Investigate the environmental impacts of the project and measures to mitigate them.
3. Put together a feasible financial plan to construct and operate the project.
4. Involve local citizens and jurisdictions in the decision-making process and gain political support for the project.

A more detailed Work Program is available and has been provided to UMTA. Tri-Met is the lead agency for the Westside LRT PE/FEIS project. Metro will provide input data regarding ridership forecasts for reports required for submission to UMTA for the Final EIS and cost-effectiveness ranking. Each of the local jurisdictions will provide land-use and economic development planning assistance as well as coordination with technical design standards of their agencies. ODOT will provide technical assistance in the areas of alignment design, traffic analysis and possibly in areas of structural analysis and right-of-way impacts.

Relation to Previous Work:

By July 1, 1983, the Westside Light Rail Project had completed the (a) alternatives analysis, (b) DEIS, (c) public hearings, (d) selection of preferred alternatives, and (e) the PE/FEIS grant application. Between 1983 and 1986, Tri-Met updated its patronage and service assumptions in a regional framework which confirmed the viability of the project. The process over the next 18 to 24 months is intended to produce material for review by the participating agencies as adopted in August 1983, including:

1. The Final Environmental Impact Statement.
2. The Westside LRT Preliminary Design which addresses the environmental concerns and design suboptions raised during local jurisdiction public hearings.

3. A feasible funding package to construct and operate the Westside LRT Project will be recommended and an implementation plan/strategy agreed to.
4. Cost-effectiveness Indices will be prepared suitable for submission to UMTA together with a series of working papers detailing the methodology and underlying assumptions.

The following related activities have taken place during this past year.

1. The Banfield LRT Project (MAX) continued successful operations on schedule and has continued to exceed ridership expectations.
2. All involved local jurisdictions continue to support moving ahead with the project as the region's top transit priority.
3. Tri-Met staff have reviewed and updated the work program and budget for the PE/FEIS process.
4. Preliminary discussions have continued between the jurisdictions and UMTA regarding needs and expectations of the PE/FEIS process.
5. Tri-Met has budgeted the PE/FEIS program to begin major work during FY 87-88.
6. Financial planning activities for the Westside LRT have been fully coordinated with the Public/Private Task Force on Transit Finance.

Products:

1. An assessment of Tri-Met's financial condition and capability will be completed consistent with UMTA's Circular of March 30, 1987.
2. Engineering drawings at 1" = 20' and 1" = 50' of the Westside LRT alignment and detailed site plans and designs of stations.
3. Cost estimates of right-of-way, alignment and track construction, overhead wires, signals, stations, vehicles, and maintenance facilities, and all other components of the project.
4. LRT operating plan including string charts and labor build-up staffing table.
5. FEIS for the project.

6. Inventory of Public and Private sector financing options together with recommended funding models for the Westside LRT will be prepared by the Public/Private Task Force on Transit Finance.
7. A Financial Plan recommending public and private sources to construct and generate the Westside LRT will be prepared. Support materials required for implementation of the financial plan will be prepared together with a detailed strategy to secure implementation of the recommended package.
8. An ongoing community involvement program to ensure a high level of citizen participation throughout the project.

Expenditures

Tri-Met	\$2,848,559
METRO	40,000
City of Portland	40,000
City of Beaverton	40,000
Washington Co.	40,000
ODOT	40,000
	<u>\$3,048,559</u>

Revenues

OR-90-X011	\$719,020
OR-23-9002	65,704
FY'88 Sec. 9	1,657,988
Tri-Met	565,847
METRO	8,000
City of Portland	8,000
City of Beaverton	8,000
Washington County	8,000
ODOT	8,000
	<u>\$3,048,559</u>

IV. SERVICE PLANNING, ANALYSIS, AND EVALUATION

A. Service Development Planning

Objectives:

1. Develop a route level forecasting model using EMME/2 software.
2. Develop comprehensive transit plans for selected market areas.
3. Maintain and enhance on-going Service Planning programs, primarily the Annual Service & Marketing Plan and Quarterly Service Report.

Relation to Previous Work:

Much work has been done concerning service to the Northwest Portland area. The comprehensive plan will serve as a prototype for future area plans.

The route level model will build on previous EMME/2 work both at Tri-Met and METRO.

Products:

1. Service change proposals
2. Implementation procedures for service changes
3. Route level forecasting model
4. Transit plan for selected market areas.

Expenditures:

Tri-Met \$130,000

Revenues:

OR-90-2019	\$	800
FY'89 New:		103,200
Tri-Met		<u>26,000</u>
		\$130,000

IV. SERVICE PLANNING, ANALYSIS AND EVALUATION

B. Market Segmentation Analysis

Program Objectives:

1. To analyze the characteristics of our market that attract or inhibit ridership.
2. To determine which market have the greatest potential for development.
3. To determine which markets segments are motivated by service characteristics, which segments are motivated by behavioral changes, and which segments are motivated by attitudinal factors.

Relation to Previous Work:

Data has been collected that provides solid travel behavior information for the regional trip market. Information has been collected to revise the models for patronage estimation, especially in conjunction with light rail. So far, however, all data collection has related to actual trip behavior, and not other factors that effect the decision to make a trip using transit.

This work is intended to determine, more precisely, the reasons why people do not use transit. Information gathered will help decide if our product does not meet expectations (comfort, hours of operation, service frequency, image, flexibility, etc.), or if behavioral actions are the prime inhibitor (day care responsibilities, need car for work), or if it is the service design. A detailed analysis will enable Tri-Met to better design its service to meet needs, including the use of para-transit alternatives.

Products:

1. Analysis of Tri-Met ridership turnover.
2. Analysis of what are our best markets.
3. Analysis of what Tri-Met can do to better meet the needs of the public without general service increases.

Expenditures:

Tri-Met \$ 95,000

Revenues:

OR-90-2019	\$ 8,000
FY'89 Sec. 9	68,000
Tri-Met	<u>19,000</u>
	\$ 95,000

IV. SERVICE PLANNING, ANALYSIS, AND EVALUATION

C. Market Evaluation

Program Objectives:

1. To evaluate market programs and judge their effectiveness in increasing market share, and meeting the objectives of the Marketing Plan.
2. To provide the analysis necessary to update the Marketing Plan, and evaluate new programs for their market potential.

Relation to Previous Work:

Previous work has focused on where we have potential on a regional or area specific basis. It has dealt with the finding of potential markets, but not evaluating our success at tapping those markets. This evaluation is important as the input to future service planning efforts.

Products:

1. An evaluation of the effectiveness of our ability to move into new markets, as outlined in the current marketing plan.
2. An evaluation of the market effectiveness potential of new programs, for inclusion into next year's marketing plan.

Expenditures:

Tri-Met \$60,000

Revenues:

FY'89 Sec. 9	\$48,000
Tri-Met	<u>12,000</u>
	\$60,000

IV. SERVICE PLANNING, ANALYSIS AND EVALUATION

D. Suburban Transit Plan

Program Objectives:

1. Achieve a thorough understanding of the suburban transit market today.
2. Determine how well current service taps the various market segments.
3. Analyze potential suburban transit service delivery patterns and methods, with particular attention to privatization impacts in terms of paratransit and contracting options.
4. Forecast future suburban travel and transit market.
5. Design a suburban transit system that meets future suburban transit needs and provides more cost-effective service than exists today.

Relationship to Previous Work:

Work has begun on the Suburban Transit Plan with the initial focus on the Westside service area. The Tualatin Valley Economic Development Council has taken an active role in overseeing the project. This initial westside work should be completed by the end of 1988 when the focus will expand to look at suburban transit markets in the rest of the region.

Products:

Suburban Transit Plan

Expenditures:

Tri-Met	\$65,000
METRO	<u>25,000</u>
	\$90,000

Revenues:

OR-90-2019	\$20,000
FY'89 Sec. 9	52,000
Tri-Met Match	14,625
METRO Match	<u>3,375</u>
	\$90,000

V. SPECIAL AREA PLANNING

A. Civil Rights Planning

Program Objectives:

1. Complete a thorough analysis of DBE participation in Tri-Met contracts.
2. Develop a computerized DBE contract monitoring process.
3. Identify areas of strength in the program which can be capitalized upon and areas of weakness which can be targeted for special efforts to resolve problems.
4. Develop a procedure to be used in establishing realistic project-specific DBE goals.
5. Revise and update, as necessary, Tri-Met's DBE policy statement.
6. Review and update submission of information relative to minorities in the urbanized area, as required by UMTA Title VI Circular 1160.1.
7. Develop a procedure for implementation and administration of the District's Equal Employment Opportunity (EEO) Program.
8. Develop and refine an EEO database.
9. Develop and implement a DBE community outreach program.

Relationship to Previous Work:

The updated Title VI report is a required submission. Revising and updating Tri-Met's DBE policy is an ongoing process. The policy requires periodic updating to reflect current regulations and changing local conditions. A process for monitoring contracts is now required by UMTA. This is a priority project which will require development of new procedures and methods to track DBE participation. The DBE outreach program is a special effort to improve DBE awareness of land participation in Tri-Met's DBE program. The EEO monitoring activities are new program objectives.

Products:

1. A program for improving Tri-Met's overall DBE level of participation in contracted services.
2. A revised agency DBE policy statement.
3. An updated Title VI report for submittal to UMTA.
4. An automated DBE contract monitoring system for submittal to UMTA.
5. Procedure for implementation and administration of the District's EEO Program.
6. An automated EEO monitoring system.

Expenditures:

Tri-Met \$25,000

Revenues:

OR-90-2019	\$ 600
FY'89 Sec. 9	19,400
Tri-Met	<u>5,000</u>
	\$25,000

V. SPECIAL AREA PLANNING

B. Privatization

Program Objectives:

Tri-Met:

1. Examine existing routes to identify areas where private sector service may be more efficient.
2. Provide information regarding private operation to interested organizations.
3. Provide for early consultation with private operators in plans for new or restructured transit service.
4. Aid in development of fully allocated cost study.
5. Provide for private sector review of projects included in TIP.
6. Develop alternatives for contract negotiations.
7. Establish means to finance local share of transit projects through public/private partnerships and joint development.
8. Determine optimum footprint for private development at selected transit stations for incidental surface and air rights to be developed by private sector.

METRO:

1. Review Tri-Met privatization analyses with TPAC and JPACT.
2. "Certify" that UMTA's Privatization Policy is being adequately met in conjunction with adoption of the TIP.
3. Ensure consideration of private alternatives in other areas, particularly the Suburban Transit Study and Southeast Corridor Study.

Relation to Previous Work:

Follows work in OR-90-2019. Moves from general development of policies and review of service alternatives to consideration of specific alternatives.

Products:

1. Documentation for submittal with the TIP of privatization program including:
 - a. private sector involvement;
 - b. proposals received and how they were evaluated;
 - c. impediments to privatization and measures taken to address; and,
 - d. status of private sector complaints.
2. Specific proposals for private sector services.
3. Fully allocated cost analysis for selected routes.
4. Proposals for changes in labor contract.
5. Land utilization analysis.
6. Alternative schematic site plans.
7. Transit modal split analysis of various development configurations.
8. Cost analysis of public improvements and cost penalty if any to the private developer.
9. Pro formas.
10. Lease revenue stream/transit modal split scenarios.
11. Packaging of state of art value capture techniques including benefit assessment for possible extension of lines

Expenditures:

Tri-Met	\$106,300
METRO	<u>17,500</u>
	\$123,800

Revenues:

OR-90-2017	\$ 12,000
OR-08-0046	14,000
FY'89 Sec. 9	73,040
Tri-Met	21,260
METRO	<u>3,500</u>
	\$123,800

V. SPECIAL AREA PLANNING

C. Special Needs Transportation Planning

Program Objectives:

1. To plan for improved fixed-route and paratransit services and information for the elderly and disabled.
2. To coordinate elderly and handicapped citizen involvement.
3. To finalize options for SNT reporting and scheduling.
4. To develop timelines and plans for new methods of coordinating service and information.

Relation to Previous Work:

Builds on OR-90-2019. Continues ongoing citizen involvement. Planning moves from considering fixed route, door-to-door, and volunteer programs separately to coordinating all services.

Products:

1. Recommendation from CAT on new accessible fixed route bus usage.
2. CAT agendas, minutes, and yearly report.
3. Report on methods for coordinating service and information concerning fixed route, door-to-door, and volunteer programs.
4. Plan and schedule for implementation of reporting and scheduling system within the three main SNT dispatch centers.

Expenditures:

Tri-Met \$ 95,000

Revenues:

FY'89 Sec. 9	\$ 76,000
Tri-Met	<u>19,000</u>
	\$ 95,000

V. SPECIAL AREA PLANNING

D. Physical Abilities/Medical Standards Project

Program Objectives:

1. Document the short and long-term physical requirements of the bus operator and two other jobs.
2. Research tests which effectively simulate major or critical demands and/or link medical examination results to specific job requirements.
3. Develop an efficient framework for the administration of the pre-employment screening program.
4. Recommend medical standards which would be indicative of the ability to perform the work with low risk of injury.
5. Validate the developed standards.

Relationship to Previous Work:

We expect this project to be completed by 6/30/88. If not, the remaining work will likely be writing the final report and training our contracted medical providers to use the finished product.

Products:

1. A written documented program of job analysis, job related medical and/or physical standards and evaluations.
2. A report describing validation methodology of the developed standards.

Expenditures:

Tri-Met \$18,000

Revenues:

OR-90-2019 \$14,400
Tri-Met 3,600
\$18,000

VI. LONG-RANGE PLANNING

A. Strategic Planning

Program Objective:

Strategic Planning was initiated by Tri-Met in 1985 to improve executive decision making. For the purposes of the District, Strategic Planning is defined as the process of systematically identifying opportunities and threats that lie in the future which, in combination with other relevant internal and external data, will provide a basis for making better short-term decisions.

Relation to Previous Work:

Strategic planning has been used as a management tool to strengthen executive decision-making at Tri-Met since it was initiated in 1985. For the past three budget cycles annual agency priorities have been established through the districts strategic planning process. The priorities set the tone for where Tri-Met wants to place special emphasis and what we want to accomplish in the coming year. The proposed Transit Development Plan and the budget are practical examples of strategic planning policies being operational at Tri-Met.

Products:

The strategic planning process is designed to produce a series of products including:

1. Implementation and refinement of an annual planning cycle.
2. A situational audit (annual) which includes a critical assessment of Tri-Met's strengths and weaknesses, an analysis of external trends and forces impacting the District, and a synthesis of the aforementioned factors.
3. A document analyzing public perceptions of Tri-Met, and the acceptance by the public of Tri-Met's Strategic Plan will be complete in support of situational audit.
4. A Strategic Policy Option analysis which results in the development of a strategy for Tri-Met which defines critical choices and tradeoffs.
5. A revised Five Year Strategic Plan which sets forth the District's five year vision and identifies areas for emphasis.

6. Identification of annual goals and priorities which will be emphasized during the annual budget building.

Expenditures:

Tri-Met \$ 80,000

Revenues:

OR-90-2019	\$ 19,800
FY'89 Sec. 9	44,200
Tri-Met	<u>16,000</u>
	\$ 80,000

VI. LONG RANGE PLANNING

B. TDP Annual Update

Program Objectives:

1. To annually revise the TDP and update all technical information and five year plans in light of Tri-Met's strategic planning process.
2. To review the TDP draft document with local jurisdictions prior to the Board's approval.
3. To analyze the impacts of the FY'88-92 TDP and make appropriate modifications.
4. To review and distribute the draft and final document to interested parties.
5. To identify service deficiencies which are projected to exist in FY'93.
6. To estimate patronage potential which would result from remedying each deficiency.
7. To develop alternative sketch level service plans to remedy the most serious deficiencies. Estimate patronage, operating and capital costs for each alternative.

Relation to Previous Work:

The staff will be reviewing, revising and updating the previous FY'88-92 Transit Development Plan. The updated version will reflect changes in service assumptions, capital funding allocations, and operating funding allocations. As part of this analysis staff will be developing a more in-depth analysis of service deficiencies and will estimate the patronage potential of increased service levels. This analysis would include the input of previous results from the Suburban Transit Plan Study.

Products:

1. Updated five-year operations and capital development plans based upon an analysis of strategic alternatives and financing constraints.
2. A five-year financing plan to accommodate regional transit service and capital needs.
3. A technical report to be incorporated into the TDP, documenting service standards; methodology for identification of service deficiencies; patronage projections and cost analysis of alternative networks.

Expenditures:

Tri-Met \$58,500

Revenues:

FY'89 Sec. 9 \$46,800
Tri-Met 11,700
\$58,500

PROGRAM ADMINISTRATION

Program Objectives:

1. Monitor and ensure that planning project activities and expenditures conform with the UWP.
2. Ensure that appropriate grant file documentation of activities and expenditures is provided for.
3. Provide quarterly financial and progress reports for all UWP planning projects.
4. Initiate requests for any required budget revisions, and UWP amendments.

Relation to Previous Work:

Although many of the grants administration activities are ongoing, special staff effort this past year went into developing a better system for monitoring actual vs. projected expenditures for planning projects. The basic system is functioning, but we anticipate making improvements and refinements in the coming year.

Products:

1. Quarterly financial and progress reports.
2. Budget revisions, UWP amendments.

Expenditures:

Tri-Met \$15,000

Revenues:

FY'89 Sec. 9	\$12,000
Tri-Met	<u>3,000</u>
	\$15,000

FY 89 UNIFIED WORK PROGRAM FUNDING SUMMARY

89uwp
4/14/88

	-----federal funding-----																LOCAL MATCH	TOTAL
	89 PL/ODOT	89 SEC 8	UNTA 89E(4)	FHWA 89HPR	89 ODOT	88/89 SEC 9	29-9011 88 SEC8	88-0054 88 SEC8 (PPIF)	29-9012 87 E(4)	29-9010 85 E(4)	29-9008 83 E(4)	87 TA EXPAN	90-2019 87 SEC9	90-2017 86 SEC9	90-X011	23-9002		
RETRO																		
RTP UPDATE/REFINEMENT	25000	48253			43926													12063
RTP PRIVITIZATION/RETRO								14000										3500
TRI NET						73040							12000				21260	
SOUTHEAST CORRIDOR		16000		28822	10482				40000								9872	
PHS I ALT ANALYSIS/RETRO			7500							26120	23817						10137	
WESTSIDE LRT						32000											8000	
DATA, GROWTH MONITORING	43516	61747		45647	2500	2000											256564	
TRAVEL MODEL REFINEMENT	18451	4000			47500	66000											17500	
TECHNICAL ASSISTANCE	71125			75000	27500	12000					16100						10000	
BANFIELD AFTER/RETRO			27625			0											4875	
SUBURBAN TRANSIT						20000											5000	
TRANS IMPROVE PROGRAM	31908	60000			18092												10000	
COORDINATION/MANAGE	35641	13620		40406					0								20407	
PUB/PRIVATE TASK FORCE		20000						80000									25000	
BI-STATE STUDY	15000												0	0	0	0	0	
Retro SUBTOTAL	240641	223620	35125	189875	150000	205850	14000	80000	40000	26120	23817	16100	0	12000	0	0	0	414178
ODOT PLANNING ASSIST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	179100	0
TRI NET																		
EFFICIENCY PLANNING						142440							97120	15000			63640	
INFORMATION SYSTEMS PLAN						255220							47200	15180			79400	
PROJECT PLANNING						1754388							12000		719020	65704	627496	
SERVICE PLAN ANALY/EVAL						251200							28800				70000	
SPECIAL AREA PLANNING						95400							15000				27600	
LONG RANGE PLANNING						91000							19800				27700	
PROGRAM ADMINISTRATION	0	0	0	0	0	12000	0	0	0	0	0	0	0	0	0	0	3000	
Tri-Net SUBTOTAL	0	0	0	0	0	2601658	0	0	0	0	0	0	219920	30180	719020	65704	0	898836
GRAND TOTAL	240641	223620	35125	189875	150000	2806688	14000	80000	40000	26120	23817	16100	219920	42180	719020	65704	179100	1313014

Note: PL/ODOT is 240,641 comprised of \$192,468 (89.06%) federal share and \$23,642 (10.94%) ODOT match and \$24,531.31 carryover

WASHINGTON PORTION

TABLE OF CONTENTS

<u>Chapter</u>	<u>Page</u>
<u>INTRODUCTION: FISCAL YEAR 1989 UNIFIED PLANNING WORK PROGRAM</u>	1
I. <u>REGIONAL TRANSPORTATION PLAN</u>	3
A. RTP Update	3
B. Bi-State Transportation Study	4
II. <u>ONGOING PLAN REFINEMENT AND DATA MANAGEMENT</u>	5
A. Regional Transportation Model Maintenance and Refinement	5
B. Transit Survey	6
C. Traffic Count Program	7
D. Data Development and Management	8
E. Computer Operations	9
III. <u>TRANSPORTATION PROGRAM MANAGEMENT</u>	10
A. Coordination and Management	10
B. Privatization	11
C. MPO Bulletin and Transportation Forum	12
D. Unified Planning Work Program (UPWP) and Transportation Improvement Program (TIP)	13
IV. <u>CONTRACT ACTIVITIES</u>	13
A. SR-500 Corridor Study	14
B. Regional Cordon Origin/Destination Survey	15
C. Latent Transit Demand Survey	16
V. <u>SUMMARY OF EXPENDITURES AND REVENUES</u>	17

INTRODUCTION: FISCAL YEAR 1989 UNIFIED PLANNING WORK PROGRAM

Purpose

The Unified Planning Work Program (UPWP) is prepared annually to detail the technical activities to be completed as a part of the continuing transportation planning process in the Clark County urban area. It describes the transportation-related planning activities anticipated within the next year. The planning activities described are related to several modes of transportation, including activities which are considered significant to the Regional Transportation Plan. The UPWP focuses on the transportation work tasks which are priorities to Federal or state transportation agencies, and those tasks considered necessary by locally elected officials. The UPWP also provides a summary of local, state, and Federal funding sources to support these planning efforts.

Objective

The UPWP describes the transportation planning activities and funding sources required to meet the major transportation policy issues of the upcoming year. It reflects the regional transportation problems and projects to be addressed during the next fiscal year. Throughout the year, the UPWP serves as the guide for planners, citizens, and elected officials to track transportation planning activities. It also provides local and state agencies in the Portland/Vancouver Metropolitan Area with a useful basis for improving regional coordination.

Participants, Coordination, and Funding Sources

The primary transportation planning participants in Clark County include the following: Intergovernmental Resource Center, C-TRAN, Washington State Department of Transportation, Port of Vancouver, Port of Camas-Washougal, Port of Ridgefield, Clark County, Vancouver, Camas, Washougal, Ridgefield, and Battle Ground. Two federal agencies, UMTA and FHWA, are also key participants. As the designated MPO for the Clark County Urban Area, IRC annually develops the transportation planning work program and endorses the work programs for the entire metropolitan area. IRC is also responsible for the development and endorsement of the Regional Transportation Plan, the Transportation Improvement Program, and other regional transportation studies.

The Clark County Public Transportation Benefit Area Corporation (C-TRAN) is responsible for operational and near term transit planning. In June of 1986, the C-TRAN Board of Directors adopted the 1986-1990 Transit Development Plan. The TDP serves as the planning document that provides the guidelines for improving transit service over the next five years.

WSDOT and the Public Works Departments of Clark County and the City of Vancouver perform project planning for the highway and street systems related to their respective jurisdictions. WSDOT is also responsible for preparing a State Transportation Plan.

The coordination of planning includes local and state officials in both Oregon and Washington. Coordination occurs at the staff level through involvement on advisory committees (IRC's CTAC and Metro's TPAC). Mechanisms for local, regional, and state coordination are spelled out formally in a series of Memoranda of Agreement. These memoranda are intended to assist and complement transportation planning process:

1. The organizational and procedural arrangement for coordinating activities such as procedures for joint reviews of projected activities and policies, information exchange, etc.
2. Cooperative arrangements for sharing planning resources (funds, personnel, facilities, and services).
3. Agreed upon base data, statistics, and projections (social, economic, demographic) on the basis of which planning in the area will proceed.

Consolidated Transportation Advisory Committee Members

Keith Ahola	WSDOT
Ron Anderson	City of Camas
Andy Cotugno	METRO
Steve Hill	Port of Vancouver
Murl Jones	Clark County
Vacant	Citizen
Mike Conway	City of Washougal
Gil Mallery	Intergovernmental Resource Center
Frank DeShirlia	City of Battle Ground
George Montoya (Chairman)	C-TRAN
Thayer Rorabaugh	City of Vancouver
Rob Hoffman	C-VAN
Kathleen Howell	ODOT
Sheldon Tyler	Port of Camas-Washougal

I. REGIONAL TRANSPORTATION PLAN

A. RTP Update

The Regional Transportation Plan is the principal transportation planning document. Its goals, objectives, and policies help to guide the work of agencies throughout Clark County that are involved in transportation planning and programming of projects. Federal transportation funding for individual projects is dependent upon their consistency with the RTP.

Work Element Objectives

1. Review the draft RTP with jurisdictions, agencies, and interested individuals through a series of public meetings.
2. Adopt a process for reviewing local comprehensive plans for consistency with the RTP, and for amending the RTP as may be required.
3. Adopt the RTP Update.
4. Review the State Transportation Plan for consistency with the RTP and provide WSDOT with a RTP summary that can be incorporated into the next State Transportation Plan.

Relationship to Other Work Elements

The RTP takes into account the reciprocal effects between growth patterns and the transportation system. It also identifies the mix of transportation strategies to solve future problems. The RTP is the corner stone of the UPWP and is interrelated to all other work elements.

Products

1. An adopted RTP Update.
2. Policies for reviewing local comprehensive plans for consistency with the RTP.

Expenses

IRC	\$32,000
Total	\$32,000

Revenues

FY89 PL	\$ 9,000
FY89 Sec. 8	8,000
Local	<u>15,000</u>
Total	\$32,000

I. REGIONAL TRANSPORTATION PLAN

B. Bi-State Transportation Study

The issue of additional Columbia River crossings between the Vancouver and Portland urban areas is a familiar topic. The 1979-80 study of the issue resulted in a decision not to pursue construction of an additional bridge at that time. The alternative short-term strategy was to increase capacity on I-5. However, the volume of traffic crossing the river has exceeded that study's estimate for the year 2000 on the I-205 bridge and is fast approaching the 2000 estimate on I-5. The year 2010 traffic volumes crossing the Columbia River are expected to exceed the combined practical capacity of both the I-5 and I-205 bridges.

This work element would be conducted in cooperation with Washington and Oregon jurisdictions. A work scope would be developed jointly and address such issues as land use, 2010 to 2020 travel demand, corridor locations, connecting roadways, LRT, and costs.

Work Element Objectives

1. Review previous studies.
2. Develop work scope which defines the issues to be addressed in a comprehensive study of future Columbia River crossings.
3. Identify agency roles and coordination.

Relationship to Other Work Elements

This element is directly related to the RTP element; however, it focuses on the issue of improving access between the Vancouver and Portland metropolitan areas.

Product

A work scope that defines the issues and agency roles which will be combined into a comprehensive study to be undertaken.

Expenses

IRC	<u>\$7,000</u>
Total	\$7,000

Revenues

FY89 PL	\$ 2,000
FY89 Sec. 8	2,000
Local	<u>3,000</u>
Total	\$7,000

II. ONGOING PLAN REFINEMENT AND DATA MANAGEMENT

A. Regional Transportation Model Maintenance and Refinement

The micro-computer based regional transportation model requires both maintenance and modification to facilitate its most effective use. The model is used as a travel forecasting tool to estimate and analyze future transportation needs required to serve population and employment growth.

Work Element Objectives

1. Maintain and update the regional model to include: network changes, land use changes, and a refinement of model inputs/outputs.
2. Modify the regional model structure to incorporate the Cordon Survey data.

Relationship to Other Work Elements

This element advances work toward the refinement of a regional transportation model which is the underlying tool for long-range transportation planning.

Products

1. Up-to-date travel forecasting model.
2. Refined inventory of existing transportation facilities.
3. Improved external and internal to external travel characteristics.
4. Report documenting travel forecasting assumptions.

Expenses

IRC	<u>\$11,000</u>
Total	\$11,000

Revenues

FY89 PL	\$ 5,000
Local	<u>6,000</u>
Total	\$11,000

II. ONGOING PLAN REFINEMENT AND DATA MANAGEMENT

B. Transit Survey

The annual transit ridership survey may change in focus and approach from year to year, depending on information needs. Types of survey information to be collected include the following: (1) passenger characteristics; (2) passenger counts; (3) travel patterns; (4) attitudes; (5) transfer counts; (6) transfer patterns; (7) boarding/alighting counts; (8) passengers by fare category; and (9) non-rider attitudes.

Work Element Objectives

1. Identify transit ridership characteristics and monitor changes. The survey information will be used to resolve short-term planning problems, guide longer term development decisions, and provide modal split data for regional transportation planning.

Relationship to Other Work Elements

The transit survey represents an ongoing data task which is important to evaluating the current transit component of the regional transportation system and to forecasting the future role of transit.

Products

1. Transit ridership data for short and long-term transportation planning.
2. A transit survey report documenting the survey procedure and findings.

Expenses

IRC	\$14,000
Professional Services	<u>\$10,000</u>
Total	\$24,000

Revenues

FY89 Sec. 8	\$ 9,000
Local	5,000
FY87 Sec. 9 (C-TRAN)	8,000
Local (C-TRAN)	<u>2,000</u>
Total	\$24,000

II. ONGOING PLAN REFINEMENT AND DATA MANAGEMENT

C. Traffic Count Program

The traffic count program will be continued in FY89. The program will continue the update and maintenance of the traffic count database. The program will also continue incorporating permanent traffic recording data for further development of raw count factorization. Turning movement data will be added to the traffic count database and report in FY89.

Work Element Objectives

1. Maintain a comprehensive, continuing, and coordinated traffic count program.
2. Implement seasonal and daily factorization on 1988 raw counts based on permanent recording information and previously developed methodology.
3. Develop database for turn movement volumes (dating back to 1980) that coordinate with the 24-hour and peak-hour traffic volume database for use in the Regional Traffic Count Manual.
4. Continued development of traffic flow mapping system.

Relationship to Other Work Elements

The traffic count program is an ongoing data activity that is critical in understanding existing travel patterns and future travel growth. The program is also a source of county-wide historic traffic data.

Products

1. Addition of turn-movement volumes and traffic flow map to the Regional Traffic Count Manual.
2. Update Traffic Count Manual and maps.
3. Seasonalized traffic count data.

Expenses

IRC	<u>\$14,000</u>
Total	\$14,000

Revenues

FY89 PL	\$ 6,000
Local	<u>8,000</u>
Total	\$14,000

II. ONGOING PLAN REFINEMENT AND DATA MANAGEMENT

D. Data Development and Management

This element includes the development and management of the regional transportation database. The database includes travel data, travel related demographic, employment, land use information, and transit ridership data. The FY89 work element also includes a task to work jointly with Metro in producing revised population and employment forecasts for the four-county metropolitan area (2010, 2020) and distribute the new forecasts into the Clark County TAZs.

Work Element Objectives

1. Maintain an up-to-date transportation data base and map file for transportation planning and regional modeling.
2. Complete the revised 2010 and 2020 population and employment estimates and distribute those into TAZs.
3. Identify the transportation planning data elements that would be incorporated into the Arc/Info GIS system.

Relationship to Other Work Elements

This element is the key to interrelating all the data activities and provides data to local jurisdictions, as well as supports the data base for the Regional Transportation Plan.

Products

1. Regional transportation database.
2. Monthly, weekly, and year-to-date transit ridership data (reports and graphs).
3. Revised 2010 and 2020 population and employment forecasts.
4. Transportation planning data and Arc/Info data integration plan.

Expenses

IRC	\$16,000
Total	\$16,000

Revenues

FY89 PL	\$ 5,000
FY89 Sec. 8	2,000
Local	<u>9,000</u>
Total	\$16,000

II. ONGOING PLAN REFINEMENT AND DATA MANAGEMENT

E. Computer Operations

Computer maintenance and application problems develop while completing the work elements identified in the Unified Planning Work Program. This element addresses those needs as well as computer training and research into computer improvements. In order to efficiently and effectively apply current hardware and software to transportation projects, an analysis process is followed to mesh computer capabilities/constraints to project needs.

Work Element Objectives

1. Apply micro computer hardware and software for transportation planning.
2. Incorporate new transportation planning software tools into the program to include staff training, evaluation of software, and software adaptation.
3. Evaluate newly developed regional transportation modeling software in terms of graphic capabilities, processing data, traffic assignment and compatibility with GIS.

Relationship to Other Work Elements

The computer operations activity is related to all UPWP elements requiring the use of the computer.

Products

1. Efficient and effective use of existing computer system capabilities and research into future needs.

Expenses

IRC	<u>\$12,000</u>
Total	\$12,000

Revenues

FY89 PL	\$ 3,000
Local	<u>9,000</u>
Total	\$12,000

III. TRANSPORTATION PROGRAM MANAGEMENT

A. Coordination and Management

This element provides for the management of the transportation section, coordination of transportation planning activities, and support to various committees.

Work Element Objectives and Procedures

1. Develop meeting packets, addenda, minutes, and reports for Intergovernmental Resource Center committees (Transportation Policy Committee, RTP Advisory Committee, CTAC, and IRC Board of Directors) and special purpose transportation committees (WSDOT Commission, TPAC, JPACT and Bi-State Policy Committee).
2. Continue to involve private sector issues and the business community in the transportation planning process.
3. Continue to update Title VI documentation, address DBE requirements, and indirect cost plans.
4. Participate in key transportation seminars and training.
5. Certification of the transportation planning process.

Relationship to Other Work Elements

Coordination and management is related to the administrative aspects of the regional transportation planning process.

Products

1. Coordination and management of the regional transportation planning process and activities.
2. Required documentation to FHWA and UMTA and response to planning requirements.
3. Involvement of the business community in the transportation planning process.
4. MPO certification.

Expenses

IRC	<u>\$33,640</u>
Total	\$33,640

Revenues

FY89 PL	\$12,860
FY89 Sec. 8	7,280
Local	<u>13,500</u>
Total	\$33,640

III. TRANSPORTATION PROGRAM MANAGEMENT

B. Privatization

UMTA has adopted a policy to promote the participation of private sector organizations in the provision of public transportation services. IRC has adopted a policy to promote the early involvement of the private sector into the transportation planning process. IRC and C-TRAN will jointly continue to implement the private participation process.

Work Element Objectives and Procedures

1. Develop TIP/AE privatization documentation including the following elements: 1) description of involvement of private sector in development of projects, 2) description of private sector proposals for transit service, 3) description of improvements to putting service out for competition, and 4) description and status of private sector complaints.
2. Continue to notify and consult private providers in plans for new service.
3. Continue to coordinate with C-TRAN in the examination of transit service to determine efficiency of using private providers.
4. Continue to evaluate which sectors could be more effectively provided by private sector.
5. Continue to use fully allocated costs in the private/public decision.
6. Continue the dispute resolution process.

Relationship to Other Work Elements

This element is related to the Coordination and Management element, but specifically addresses the UMTA private enterprise participation regulation.

Products

1. The integration and utilization of competition and the private sector throughout transportation planning activity areas.
2. The TIP/AE privatization documentation.

Expenses

IRC	\$ 7,500
Total	\$ 7,500

Revenues

FY89 Sec. 8	\$ 6,000
Local	<u>1,500</u>
Total	\$ 7,500

III. TRANSPORTATION PROGRAM MANAGEMENT

C. MPO Bulletin and Transportation Forum

Work Element Objectives and Procedures

1. Provide a regional transportation forum for public discussion of transportation policy issues, technical issues, and transportation projects. One public forum and/or one technical seminar will be sponsored by IRC including the development of the theme, the agenda, the selection of participants, and the local coordination.
2. Publish three issues of the MPO Bulletin and provide a communication link with residents and community leaders. The bulletin will be mailed to citizens, agencies, and businesses in the county.

Relationship to Other Work Elements

This element interrelates the pencil and paper aspects of the transportation program to community issues and information needs.

Products

1. Increased awareness and information on regional policy and technical issues.
2. Public information on issues and activities affecting Clark County and the Portland area.
3. Publication and distribution of three issues of the MPO Bulletin.

Expenses

IRC	<u>\$16,000</u>
Total	\$16,000

Revenues

FY89 PL	\$ 4,000
FY89 Sec. 8	4,000
Local	<u>8,000</u>
Total	\$16,000

III. TRANSPORTATION PROGRAM MANAGEMENT

D. Unified Planning Work Program (UPWP) and Transportation Improvement Program (TIP)

The UPWP and TIP are developed in cooperation with CTAC members. Recommend IRC adoption of the UPWP in April-May of each year and adoption of the TIP in September of each year.

Work Element Objectives and Procedures

1. Develop and adopt a UPWP that describes all transportation planning activities to be carried out in the Washington portion of the Portland-Vancouver metropolitan area. Develop and adopt a staged multi-year listing of transportation projects scheduled for the next 6 years.

Relationship to Other Work Elements

The UPWP represents a coordinated program that responds to regional transportation planning needs. The TIP represents the implementation tool for the needs identified in the RTP.

Products

1. Documentation and coordination of transportation planning activities and transportation improvement projects. Both reports are key elements to maintaining the area's eligibility for federal capital and operating transportation funds.
2. An adopted UPWP.
3. An adopted TIP.

Expenses

IRC	<u>\$10,000</u>
Total	\$10,000

Revenues

FY89 PL	\$ 4,000
FY89 Sec. 8	4,000
Local	<u>2,000</u>
Total	\$10,000

IV. CONTRACT ACTIVITIES

A. SR-500 Corridor Study

Southeast Clark County continues to grow in residential, commercial, and industrial development. This growth is attributed to the opening of I-205 (1983) and the resulting increases in accessibility to developable land. Increasing traffic volumes are expected on the local and regional roads in the area.

This study will examine current and future traffic on SR-500 and its connections to roadways in southeastern Clark County, and provide a comprehensive planning document stating the future regional transportation needs in the area.

Work Element Objectives

1. Prepare current and future (2010) traffic volumes (daily and peak hour) on I-205, SR-500, and SR-14 based on known land uses and land use plans for southeast Clark County.
2. Analyze 2010 traffic and capacity conditions for interchanges on SR-500 at Andresen Road, Thurston Way, Gher Road, and SR-503.
3. Examine land use and accessibility impacts and issues of alternative alignments of SR-500.
4. Examine proposals of improved connections to SR-205 and SR-14 set by Clark County's South County Planning Study (1986).

Relationship to Other Work Elements

This work element is a contract activity with WSDOT. The study will interrelate the transportation improvements identified for state roads in southeastern Clark County, to the regional transportation system recommended in the RTP.

Products

1. A comprehensive technical planning document for WSDOT that examines current and future transportation problems and needs for future growth of population, commerce, and industry in the southeastern Clark County area.

Expenses

IRC	\$42,700
Total	\$42,700

Revenues

HPR	\$25,000
WSDOT	<u>17,700</u>
Total	\$42,700

IV. CONTRACT ACTIVITIES

B. Regional Cordon Origin/Destination Survey

A key component in forecasting future travel in Clark County is quantifying the number of trips which originate and/or are destined to points outside of Clark County. An extensive roadside survey was last conducted in 1960 by the Portland-Vancouver Metropolitan Transportation Study Commission. This element would update this information by surveying the travel characteristics of a sample of vehicles entering and exiting Clark County.

Work Element Objectives

1. Collect vehicle data on all major highways entering Clark County. This data would include gathering license plate numbers of a statistically reliable sample of vehicles to reflect a typical weekday's travel pattern. Observed data would include: a) total number of passing vehicles, b) number of commercial trucks, c) state of registration, and d) license number.
2. Obtain names and addresses for those registered vehicles from the respective State Departments of Motor Vehicles.
3. Mail out questionnaire querying the driver about the following data for his trip that day: a) origin, b) destination, c) trip purpose, and d) vehicle occupancy.
4. Analyze survey results for major travel movements in the metropolitan area.
5. Coordinate study process and results with Metro and ODOT.

Relationship to Other Work Elements

This element will provide valuable information primarily for the regional forecasting model. In addition, the data would supplement the traffic count program.

Products

1. Report summarizing the cordon survey results, detailing a profile of travelers entering and exiting Clark County.
2. Observed trip tables to represent external trips into/out of Clark County to be used as inputs to the regional forecasting model.

Expenses

IRC	\$24,060
Total	\$24,060

Revenue

HPR	\$20,698
Local	<u>3,362*</u>
Total	\$24,060

*FY88 local match.

V. SUMMARY OF EXPENDITURES AND REVENUES

FY89 UNIFIED WORK PROGRAM

CLARK COUNTY SUMMARY OF EXPENDITURES
BY FUNDING SOURCE (\$000'S)

	<u>Base MPO Activities</u>			<u>Special MPO Contracts</u>		<u>TOTAL</u>	
	<u>FY89 PL</u>	<u>FY89 UMTA</u>	<u>FY87 SECTION 9</u>	<u>IRC LOCAL</u>	<u>WSDOT</u>	<u>OTHER</u>	<u>(\$000's)</u>
I. REGIONAL TRANSPORTATION PLAN							
A. RTP Update	9.0	8.0		15.0			32.0
B. Bi-State Transportation Study	2.0	2.0		3.0			7.0
II. ONGOING PLAN REFINEMENT AND DATA MANAGEMENT							
A. Regional Transportation and Model Maintenance and Refinement	5.0			6.0			11.0
B. Transit Survey		9.0	10.0	5.0			24.0
C. Traffic Count Program	6.0			8.0			14.0
D. Data Development and Management	5.0	2.0		9.0			16.0
E. Computer Operations	3.0			9.0			12.0
III. TRANSPORTATION PROGRAM MANAGEMENT							
A. Coordination and Management	12.86	7.28		13.5			33.64
B. Private Enterprise Participation in the Transportation Planning Process		6.0		1.5			7.5
C. MPO Bulletin and Transportation Forum	4.0	4.0		8.0			16.0
D. Unified Work Program (UWP) and Transportation Improvement Program (TIP)	4.0	4.0		2.0			10.0
SUBTOTAL	50.86	42.28	10.0	80.0			183.14

FY89 UNIFIED WORK PROGRAM

CLARK COUNTY SUMMARY OF EXPENDITURES
BY FUNDING SOURCE (\$000'S)

	<u>Base MPO Activities</u>				<u>Special MPO Contracts</u>		<u>TOTAL</u>
	<u>FY89 PL</u>	<u>FY89 UNTA</u>	<u>FY87 SECTION 9</u>	<u>IRC LOCAL</u>	<u>WSDOT</u>	<u>OTHER</u>	<u>(\$000's)</u>
VI. CONTRACT ACTIVITIES							
A. SR-500 Corridor Study					42.70 ¹		
B. Regional Cordon Origin/Destination Survey					24.06 ²		
C. Latent Transit Demand Study						21.5 ³	
GRAND TOTAL	50.86	42.28	10.0	80.0	66.76	21.5	271.4

Note: ¹\$25,000 in HPR and \$17,700 in WSDOT.
²HPR including FY88 local match.
³C-TRAN contract.