

BEFORE THE COUNCIL OF THE  
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF AMENDING THE ) RESOLUTION NO. 83-399  
FY 83 UNIFIED WORK PROGRAM (UWP) )  
FOR COMPUTER PURCHASE ) Introduced by the Joint  
 ) Policy Advisory Committee on  
 ) Transportation

WHEREAS, The FY 83 Unified Work Program (UWP) was adopted  
in May 1982 by Resolution No. 82-331; and

WHEREAS, Changes to the UWP must be approved by the Metro  
Council; and

WHEREAS, The FY 83 UWP must be amended to include \$29,230  
of FHWA-PL funds to be used towards purchase of micro-computer  
hardware and software; now, therefore,

BE IT RESOLVED,

1. That the Metro Council approves the amendment to the  
FY 83 UWP to include \$29,230 of PL funds toward acquisition of  
micro-computer hardware and software.

2. That staff is directed to enter into the necessary  
agreement to obtain release of the funds and initiate the purchase.

ADOPTED by the Council of the Metropolitan Service District  
this 26th day of May, 1983.

  
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Presiding Officer

AC/srb  
8360B/349  
05/13/83

STAFF REPORT

Agenda Item No. 6.3

Meeting Date May 26, 1983

CONSIDERATION OF RESOLUTION NO. 83-399 FOR  
THE PURPOSE OF AMENDING THE FY 83 UNIFIED  
WORK PROGRAM FOR COMPUTER PURCHASE

Date: April 18, 1983

Presented by: Andy Cotugno

RECOMMENDATION

This resolution would add an FHWA-PL funded element to the FY 83 Unified Work Program (UWP) in the amount of \$29,230 for acquisition of hardware and software for a new travel forecasting package.

FACTUAL BACKGROUND AND ANALYSIS

Metro's Transportation Department is responsible for producing transit and highway travel forecasts for the Portland metropolitan area. The current system used models defined with UMTA's "Urban Transportation Planning System" (UTPS) operating on Multnomah County's mainframe computer. Computer expenses are generally \$50,000 per year and have been as high as \$80,000 per year in the past. This UWP amendment is the first step in converting to a new travel forecasting package operating on an in-house micro-computer.

The proposed travel forecasting package (EMME 2) has been developed by the Transportation Research Centre at the University of Montreal to run on a PIXEL super micro-computer manufactured by Instrumentation Laboratories in Andover, Massachusetts. The conversion involves a single purchase of the PIXEL hardware and EMME 2 software as a package plus a second purchase of the necessary graphics equipment. The various elements of the conversion are as follows:

1. EMME 2 travel forecasting plus related software	\$19,150
2. PIXEL hardware plus related peripherals	\$39,310
3. Graphics Equipment	<u>\$39,200</u>
	\$97,660

The benefits of converting to the EMME 2 system are as follows:

1. Cost-Effectiveness - Based upon a current \$50,000 per year

computer cost, the overall purchase will be "paid-off" within two years to be replaced thereafter with an annual maintenance cost of \$8,000 per year.

2. Improved model characteristics - The EMME 2 system has a more effective highway and transit assignment procedure than UTPS.
3. The EMME 2 system will increase staff productivity with the following enhancements:
  - a. EMME 2 is more user-friendly than UTPS and is, therefore, easier to use as an analytical tool.
  - b. EMME 2 is designed to be used in an interactive mode while UTPS can only operate in a batch mode. Through interactive capabilities, an individual can evaluate the characteristics of a transportation alternative with immediate response of data items.
  - c. EMME 2 is designed to provide as much information as possible in graphic rather than tabular form, thereby making evaluation of complex data easier. In addition, since EMME 2 is based on a micro-computer, graphics equipment is more economical than that for a mainframe.

TPAC and JPACT have reviewed and approved this UWP amendment.

#### PROPOSED FUNDING

This UWP amendment is related to the acquisition of the EMME 2 plus related software and the PIXEL computer plus related peripherals (the graphics equipment will be purchased in FY 84). The funding for this purchase is proposed as follows:

	<u>Hardware</u>	<u>Software</u>	<u>Total</u>
Metro	\$11,442	\$ 0	\$11,442
FHWA-PL/ODOT Match	27,868	19,150	47,018
	<u>\$39,310</u>	<u>\$19,150</u>	<u>\$58,460</u>

Metro's acquisition of 29 percent of the hardware will allow 29 percent of its use for non-Transportation purposes.

This UWP amendment for \$29,230 is for one-half of the \$58,460 total purchase price, to be paid upon execution of the purchase contract. The second half will be included in the FY 84 UWP to be paid upon receipt of the equipment.

#### EXECUTIVE OFFICER'S RECOMMENDATION

Recommend adoption of the attached resolution.

COMMITTEE CONSIDERATION AND RECOMMENDATION

The Development Committee unanimously recommended Council adoption of the attached resolution on May 9, 1983.

AC/srb  
8360B/349  
05/13/83