

BEFORE THE METRO CONTRACT REVIEW BOARD

FOR A SOLE SOURCE CONTRACT, NOT TO ) RESOLUTION NO. 93-1799A  
EXCEED \$10,000, WITH INRO )  
CONSULTANTS OF MONTREAL TO ASSIST )  
WITH THE LINKING OF EMME/2 ) Introduced by  
TRANSPORTATION FORECASTING SOFTWARE) Rena Cusma, Executive Officer  
WITH DRAM/EMPAL AND TO CONSULT ON )  
ISSUES OF LINKED MODEL RESPONSE AND)  
STABILITY )

WHEREAS, Metro needs an enhanced implementation of DRAM/EMPAL for policy evaluation of future growth options and the ability to analyze the indirect effects of transportation infrastructure on air quality; and

WHEREAS, The Federal Highway Administration (FHWA) desires to carry out an evaluation of the practical use of linked land use and travel forecasting models, using current state of practice procedures; and

WHEREAS, Both Metro and FHWA need an analysis of the impact of the size of growth change and the size of infrastructure investment that is of sufficient magnitude to change the linked model output enough to change the environmental outputs; and

WHEREAS, Metro has, installed and accessible, current state-of-the practice models and a database that is suitable for the desired evaluation; and

WHEREAS, The desired evaluation is an extension and expansion of work already started in the LUTRAQ (1000 Friends of Oregon) study funded in part by FHWA, EPA and Metro; and

WHEREAS, The analysis will require an intimate knowledge of proprietary software EMME/2, the property of INRO; and

WHEREAS, Dr. Michael Florian of INRO is an expert on transportation network supply models and model stability; now, therefore,

BE IT RESOLVED,

That the Metro Council authorizes a sole source contract with INRO Consultants of Montreal to assist in this project as described in the attached staff report.

ADOPTED by the Metro Contract Review Board this 13th day of May, 1993.

  
\_\_\_\_\_  
Judy Wyers, Presiding Officer

TKL:GR:lmk  
93-1799A.RES  
4-28-93

## STAFF REPORT

CONSIDERATION OF RESOLUTION NO. 93-1799A FOR A SOLE SOURCE CONTRACT, NOT TO EXCEED \$10,000, WITH INRO CONSULTANTS OF MONTREAL TO ASSIST WITH THE LINKING OF EMME/2 TRANSPORTATION FORECASTING SOFTWARE WITH DRAM/EMPAL AND TO CONSULT ON ISSUES OF LINKED MODEL RESPONSE AND STABILITY

Date: April 13, 1993

Presented by: Andrew Cotugno

## PROPOSED ACTION

This resolution is linked to the previous resolution (No. 93-1798A) and is a contract to obtain the services of the transportation modeling software provider to assist Metro and the contractor of the Land Use/Transportation Feedback project in the development of linked models.

## FACTUAL BACKGROUND AND ANALYSIS

This project is fully described in the staff report for the Land Use/Transportation Model linkage and its Attachment A. This resolution is needed to set up a contract with the authors and owners of EMME/2, our transportation modeling software to assist in the larger project.

As a part of this project, linking and stability questions need to address the network travel assignment model structure and algorithm and the best and most effective way to link the external DRAM/EMPAL model with EMME/2. To this end, a contract with INRO Consultants to make available the services of Professor Michael Florian, the originator of EMME/2, to consult with Professor Putman on the network assignment algorithms and to investigate the possibility of integrating the DRAM/EMPAL model within the EMME/2 structure is needed. The FHWA monitor on this project, Dr. Fred Ducca, concurs with this recommendation.

## SOURCE OF FUNDS

This is entirely funded with a discretionary grant already approved by the Metro Council and received from FHWA.

## EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends approval of Resolution No. 93-1799A.

93-1799A.RES

4-28-93

TKL:GR:lmk

ATTACHMENT A

Metro Land Use Transportation Project  
Transportation Model Work Program

EQUILIBRIUM CONDITIONS IN TRAVEL FORECASTING

BACKGROUND

This work program is ancillary to the master work program (Land Use/Transportation Model Linkage Work Program).

PURPOSE

To make available to both Metro and S.H. Putman Associates the services of the originators of EMME/2, INRO Consultants of Montreal. This is to make available the experience and knowledge of Dr. Michael Florian and his staff in the area of network assignment to advise on model interaction stability questions and to advise on the best way of linking the two models (EMME/2 and DRAM/EMPAL) from the perspective of familiarity with EMME/2 access points.

COSTS/REIMBURSEMENT

Up to two trips to Portland or Philadelphia for face-to-face consulting are envisaged, with up to six days of consulting time.

Travel costs will be reimbursed, and the total cost of this contract shall not exceed ten thousand U.S. dollars (\$10,000.00).

93-1799A.RES  
TKL:GR:lmk  
4-28-93

**PLANNING COMMITTEE REPORT**

CONSIDERATION OF RESOLUTION NO. 93-1799, FOR A SOLE SOURCE CONTRACT, NOT TO EXCEED \$10,000, WITH INRO CONSULTANTS OF MONTREAL TO ASSIST WITH THE LINKING OF EMME/2 TRANSPORTATION FORECASTING SOFTWARE WITH DRAM/EMPAL AND TO CONSULT ON ISSUES OF LINKED MODEL RESPONSE AND STABILITY

-----  
Date: May 1, 1993

Presented by: Councilor Devlin

**Committee Recommendation:** At the April 27 meeting, the Planning Committee voted unanimously to recommend Council adoption of Resolution No. 93-1799. Voting in favor: Councilors Van Bergen, Kvistad, Devlin, Gates, and Moore. Excused: Councilor Monroe.

**Committee Issues/Discussion:** Keith Lawton, Manager, Technical Services Division, presented the staff report. This resolution is very similar to Resolution 93-1798, but is to allow the transportation modeling person meet with Putman and Associates and Metro. (See Committee Report for Resolution 93-1798 for further information).

The resolution title was amended to reflect the amount of the contract and location of the contractor.

BEFORE THE METRO CONTRACT REVIEW BOARD

FOR A SOLE SOURCE CONTRACT, NOT TO ) RESOLUTION NO. 93-1799A  
EXCEED \$10,000, WITH INRO )  
CONSULTANTS OF MONTREAL TO ASSIST )  
WITH THE LINKING OF EMME/2 ) Introduced by  
TRANSPORTATION FORECASTING SOFTWARE) Rena Cusma, Executive Officer  
WITH DRAM/EMPAL AND TO CONSULT ON )  
ISSUES OF LINKED MODEL RESPONSE AND)  
STABILITY )

WHEREAS, Metro needs an enhanced implementation of DRAM/EMPAL for policy evaluation of future growth options and the ability to analyze the indirect effects of transportation infrastructure on air quality; and

WHEREAS, The Federal Highway Administration (FHWA) desires to carry out an evaluation of the practical use of linked land use and travel forecasting models, using current state of practice procedures; and

WHEREAS, Both Metro and FHWA need an analysis of the impact of the size of growth change and the size of infrastructure investment that is of sufficient magnitude to change the linked model output enough to change the environmental outputs; and

WHEREAS, Metro has, installed and accessible, current state-of-the practice models and a database that is suitable for the desired evaluation; and

WHEREAS, The desired evaluation is an extension and expansion of work already started in the LUTRAQ (1000 Friends of Oregon) study funded in part by FHWA, EPA and Metro; and

WHEREAS, The analysis will require an intimate knowledge of proprietary software EMME/2, the property of INRO; and

WHEREAS, Dr. Michael Florian of INRO is an expert on

transportation network supply models and model stability; now,  
therefore,

BE IT RESOLVED,

That the Metro Council authorize a sole source contract with  
INRO Consultants of Montreal to assist in this project as  
described in the attached staff report.

ADOPTED by the Metro Contract Review Board this \_\_\_\_\_ day of  
April, 1993.

Judy Wyers, Presiding Officer

TKL:GR:lmk  
93-1799A.RES  
4-28-93