



STAFF REPORT/RESOLUTION

TO: Southwest Washington Regional Transportation Council Board of Directors
FROM: Matt Ransom, Executive Director 
DATE: August 28, 2018
SUBJECT: **Urban Freeway Corridor Operations Study: Professional Services Consulting Agreement, Resolution 09-18-20**

AT A GLANCE - ACTION

This resolution describes the consultant selection process, summarizes the tasks for the Urban Freeway Corridor Operations Study and asks the RTC Board to authorize the Executive Director to enter into a consulting services agreement for implementation of the Study.

INTRODUCTION

In March, the RTC Board adopted Resolution 03-18-05 that approved the use of \$450,000 in state WSDOT funds to supplement federal Surface Transportation Block Grant funds already programmed in the Transportation Improvement Program for the Urban Freeway Corridor Operations (UFCO) Study and allow for a more comprehensive operational analysis. The state funds must be used in the current biennium and spent by June 2019. Consequently, Resolution 03-18-05 allowed the freeway operational analysis to proceed in 2018.

While Resolution 08-18-18 addressed state funds committed to regional origin-destination analysis, this resolution deals with the Urban Freeway Corridor Operations Study, with funds comprised of both WSDOT dollars and federal Surface Transportation Block Grant funds.

Although the Regional Origin Destination Study and the Urban Freeway Corridor Operations Study are two separate initiatives, they will be closely coordinated so that the origin destination data best supports the baseline data needs and existing conditions analysis of the UFCO Study.

RTC worked closely with WSDOT planning and operations staff to develop a scope of work for the Urban Freeway Corridor Operations Study and completed a selection process to provide consultant technical services for the study.

This resolution is to request that the RTC Board authorize the Executive Director to enter into a consulting services agreement with David Evans and Associates for technical services for the UFCO Study.

CONSULTANT SELECTION PROCESS

A Request for Qualifications for the UFCO Study was issued on May 23, 2018, and was advertised in the media including the Portland Daily Journal of Commerce and the Seattle Daily Journal of Commerce. In response to the RFQ, submittals were received from one firm, DEA, by the June 14, 2018 closing date. WSDOT and the selection team determined that one submittal was fully acceptable as long it was an accomplished team and a strong proposal. A review team made a consultant selection panel with representatives from the Washington State Department of

Transportation, Clark County, C-TRAN, City of Vancouver, and RTC reviewed the consultant proposal to determine the qualifications of the technical team.

After scoring the proposal, all selection team representatives concurred that the DEA group was highly qualified and could provide excellent technical expertise for the Study; however, the selection team completed the full procurement process. Team members evaluated and scored the statement of qualifications, checked references, and conducted an interview with DEA team on July 17. They did not know they were the only team interviewed, but did excellent during the interview and reinforced the decision of the selection team.

Together, the UFCO and OD Study proposals clearly identified the interdependency between the two studies, and described how and when the studies should be coordinated to ensure that OD data collection is done in a way that best meets the needs of the freeway operations study.

The DEA team has extensive experience in planning and development in the area of technology based operational strategies and low cost capital improvements to improve traffic flow. They were the lead consultants for ODOT's Congestion Bottleneck Operations Study and Active Traffic Management Study.

AGENCY ROLES AND RESPONSIBILITIES

RTC will be the project lead for the overall study and the management of work tasks and with support from the partner agencies. An Urban Freeway Corridor Operations (UFCO) Technical Advisory Committee (TAC) has been formed made up of Washington State Department of Transportation, Clark County, C-TRAN, City of Vancouver and RTC.

The UFCO TAC will meet periodically to provide support regarding review of data collection needs, existing conditions, development analysis of operational strategies, cost estimates and findings and recommendations. In addition, the UFCO Consultant will confer, in coordination with the TAC members, with the OD Study consultant to ensure that the OD collection option addresses the data requirements of the UFCO Study.

RTC will provide updates to the Regional Transportation Advisory Committee and the RTC Board and other groups as needed.

URBAN FREEWAY CORRIDOR OPERATIONS STUDY SCOPE OF WORK

(summarized)

The study corridor encompasses the full freeway system in the Clark County Urban area which consists of: I-5 from the Columbia River to 179th; I-205 from the Columbia River to I-5; I-5 from the Columbia River to 179th; I-205 from the Columbia River to I-5; SR-14 from I-5 to 192nd; and SR-500 from I-5 to Fourth Plain, including north from SR-500 on SR-503 up to Padden Parkway. In addition to the freeway mainline it also includes freeway to freeway connections and exit and entrance ramps. Where applicable, access from park and ride facilities from arterials to the freeway will also be considered.

Task 1: Project Management

The Consultant shall manage its budget, scope, and schedule and provide project management activities through the schedule duration noted to coordinate resources in delivering this Project.

Task 2: Data Collection

In addition to the data being collected through the Regional Origin Destination Study, examples of other transportation data that may be needed under this task include existing AM and PM peak hour traffic counts, speed, travel time, trip purpose, vehicle classification, signal timing and crash data. Data sources will be identified by the consultant team in coordination with the Study TAC and could include available public agency data, field collection, and the Portal Transportation Data Archive for the Vancouver/Portland region. The full range of data collection required under this task is dependent on the method of OD data procurement for the OD Study. This task also includes collecting data on roadway geometry such as: distances between interchanges/intersections and gore points; shoulder widths and pavement thickness; ITS equipment types and locations; and communication and electrical utility locations

Consultant will collaborate with RTC and the partner agencies to identify appropriate analysis tools needed for the study and develop a methodology for analysis.

Task 3: Analysis of Existing Conditions

Analysis will assess in detail a wide range of traffic operations and corridor performance. It will include an evaluation of: merge/weave and conflicts for traffic entering and exiting the freeway; identification of hot spots and bottlenecks; vehicle queuing and delay on the mainline and connecting ramps; and safety analysis, including crashes by type, number, and severity.

This task consists of a detailed examination of existing physical characteristics and constraints of the freeway facilities within the study area and for arterial facilities where they access freeway facilities. The consultant will produce documentation and a visual inventory of the geometric issues and operational constraints for facilities in the study corridors.

Task 4: Identification and Screening of Operational Strategies

Identify and document approaches for improving safety and efficiency of traffic operations, focusing on active traffic management and lower-cost capital improvements that could apply to the corridors in the study area and assemble a toolbox of strategies with a brief description of each strategy type and potential benefits.

The range of strategies for consideration could include variable speeds, queue warning notifications, dynamic lane assignment, additional traveler information, and improved and expanded ramp metering. All these strategies rely on using real time information to respond to changing traffic conditions. In addition, a menu of low cost capital improvements will be developed to address identified physical constraints. These may include: lane extensions, auxiliary lanes, ramp reconfigurations or closures, and restriping.

Task 5: Design Workshop

RTC will host a workshop with members of the TAC and other agency stakeholders which will be developed by the consultant team in coordination with the TAC.

The workshop is for comprehensive review and discussion of all work conducted to date and to provide an opportunity for a detailed examination and discussion of the preliminary strategies developed in task 4 and how they address the operational and geometric constraints identified in previous tasks. The consultant team will present information and answer questions from agency staff. One of the outcomes of the workshop is to support the development of an agency consensus on improvement concepts by corridor and location.

Task 6: Evaluation of Roadway Modifications and Operational Improvements

Based on the Workshop results, this task will finalize detailed traffic operational and safety analysis to determine the potential benefits for the final list of projects by category, type and location. Potential operational benefits may include reduction of travel time, increased speeds, improvements in reliability or reduction of queuing. Safety benefits include potential reduction in number of crashes, which will reduce delays and congestion at bottleneck locations.

Consultant shall provide refinement to project graphics and narrative and document the findings in a Technical Memorandum. Improvements will be identified at a level of conceptual design that will allow for the development of conceptual cost estimates in task 7.

Task 7: Cost Estimates

Conceptual cost estimates will be developed for both operational strategies and low cost capital improvements which will include: design, construction, operations, and maintenance of the improvements.

Methodology for the cost estimation process will be led by the consultant with review and approval by the study partners. It may include agency experience and judgement, historical cost values, costs for similar facilities or improvements and factoring for the size and scope of the improvements.

Task 8: Findings and Recommendations

Study findings will include a description of recommended improvements on safety, delay and reliability; cost/benefit analysis; and a prioritized list of projects and costs to support policy makers in funding decisions. The outcome of this task is a recommended set of integrated improvements and strategies for implementation to guide investment in operational improvements and low cost capital projects on the urban freeway system.

Prepare a draft and final report documenting the corridor operations and associated implementation strategies. It should include the analysis, refinement, and identification of the highest priority corridors for implementation. At a minimum, it should identify the key traffic and operational impacts, cost, and safety impacts.

(Note: a copy of the detailed UFCO Study scope of work is available upon request.)

POLICY IMPLICATION

The Urban Freeway Corridor Operations Study is contained in the 2018-2021 TIP and supports the federal Congestion Management Process requirement that agencies collaborate to utilize operational management, demand management, transit, and ITS technology to address travel demand before adding roadway capacity. Adoption of the resolution is also consistent with the traffic operational efficiency goals in the Regional Transportation Plan, TIP, and the Unified Planning Work Program.

Precedent action: The RTC Board adopted Resolution 03-18-05 to authorize acceptance of WSDOT funds for the Study and allow programmed STBG funds to be obligated in the 2018 calendar year.

BUDGET IMPLICATION

Funding for this study is currently in the adopted Budget and Unified Planning Work Program, as established in Resolution 03-18-05. Current Budget will cover all costs associated with the proposed consulting services agreement and RTC project management services.

Action on this resolution would allow RTC’s Executive Director to commit budgeted funds and enter into a contract with David Evans and Associates for the Urban Freeway Corridor Operations Study not to exceed \$340,000.

ACTION REQUESTED

Adoption of Resolution 09-18-20 “Urban Freeway Corridor Operations Study: Professional Services Consulting Agreement Study: Professional Services Consulting Agreement.”

ADOPTED this 4th day of September 2018, by the Southwest Washington Regional Transportation Council.

SOUTHWEST WASHINGTON
REGIONAL TRANSPORTATION COUNCIL

ATTEST:

Ron Onslow
Chair of the Board

Matt Ransom
Executive Director