



STAFF REPORT/RESOLUTION

TO: Southwest Washington Regional Transportation Council Board of Directors
FROM: Matt Ransom, Executive Director
DATE: February 27, 2018 
SUBJECT: **Urban Freeway Corridors Study: UPWP & TIP Amendment, Resolution 03-18-05**

AT A GLANCE - ACTION

RTC has been informed by WSDOT that \$450,000 in state funds are available to supplement funds already programmed in the year 2020 Transportation Improvement Program (TIP) for the Urban Freeway Corridor Study. The state funds are available for use within the current biennium and must be spent by June 2019. Therefore, the RTC Board is being asked to take action to amend the FY2018 Unified Planning Work Program (UPWP) to add the Urban Freeways Corridor Study and to amend the TIP so this work element can move forward in 2018.

INTRODUCTION

RTC has federal Surface Transportation Block Grant (STBG) funds programmed in the year 2020 TIP to conduct an Urban Freeway Corridors Study. The study is intended to analyze and recommend near-term operational improvements on the Vancouver urban freeway system to improve mobility and safety. It will concentrate on operational improvements within the I-5, I-205, SR-14, and SR-500 corridors. An important focus of the study will be on the I-5 corridor from the Columbia River to 179th Street, which was identified in the annual Congestion Management Process Report as an immediate need for analysis, identification, and implementation of low-cost operational and transportation demand management (TDM) strategies as a response to increased bi-state travel demand.

The additional \$450,000 in WSDOT funds will supplement already programmed funds for the Study to conduct a more comprehensive operational analysis. The state funds must be used in the current biennium and spent by June 2019. Consequently, the operational analysis will need to proceed in 2018.

The study will be managed by RTC, and coordinated with WSDOT and other regional partners and will begin by conducting a regional origin-destination analysis. The origin-destination analysis would provide an understanding of access to and from the freeways and would also have the flexibility to be used as a tool by WSDOT for other special studies. In addition, the origin-destination element will provide better information as input to the transportation model for improved travel forecasting. Following the completion of the origin-destination analysis, the Study will complete an analysis of freeway operational needs to identify improvements to make the most of the current Vancouver urban freeway system. Low cost strategies include technology based advanced traffic management techniques, addressing geometric constraints, and transit enhancements.

RTC Board action is required to amend both the Unified Planning Work Program (UPWP) and the Transportation Improvement Program (TIP) for this work element to move forward in 2018. The attached FY 2018/2019 UPWP Urban Freeway Corridors Study work element and the STIP project record reports provide additional information on the project. Detailed scope definitions will be developed concurrent with professional services solicitation and contracting.

UNIFIED PLANNING WORK PROGRAM

The UPWP is prepared annually to describe transportation activities to be completed as part of the regional transportation planning process. During the course of the fiscal year, the work program is kept current through UPWP amendments. The FY 2018 UPWP was adopted by RTC Board Resolution 05-17-07 at the May 2, 2017 RTC Board meeting.

Since the Urban Freeway Corridors Study was anticipated in 2020, it was not included in the current UPWP. Therefore, action is requested to amend the FY 2018 UPWP to add the Urban Freeway Corridors Study work element and to allow RTC's Transportation Director to enter into an agreement with WSDOT for use of the \$450,000 in state funds.

TRANSPORTION IMPROVEMENT PROGRAM

Regionally significant projects must also be listed in the regional TIP, which in turn becomes a part of the State Transportation Improvement Program (STIP).

In addition to the WSDOT funds that need to be programmed in 2018, the regional 2018-2021 TIP has \$150,000 in Surface Transportation Block Grant (STBG) funds programmed in year 2020 for the Urban Freeway Corridors Study. RTC is recommending that an additional \$65,000 of un-programmed STBG dollars be added to the study for a total of \$215,000 of STBG funds and be programmed forward to year 2019. These funds as well as other local matching funds for federal STBG funds will need to be programmed in the 2018-2021 TIP.

PRECEDENT ACTIONS

Board Resolution 10-16-23 committed \$150,000 in STBG funds to initiate the Urban Freeway Corridors Study. It was assumed then that regional partners would contribute additional funds to reinforce the scope of the proposed study. The commitment of WSDOT funds as proposed is one example. Other regional partners may contribute additional funds for specific scope activities in the future.

At their February meeting, RTAC recommended that the RTC Board amend the FY 2018 UPWP and 2018-2021 TIP to include the Urban Freeway Corridors Study.

POLICY IMPLICATION

The Urban Freeway Corridors Study is contained in the 2018-2021 TIP and supports the federal CMP 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 MTP, TIP, and the UPWP.

BUDGET IMPLICATION

Action on this amendment will allow RTC to enter into an intergovernmental agreement with WSDOT for up to \$450,000 in WSDOT funds to expand the scope and supplement the Urban Freeway Corridor Study. It will also amend the 2018-2021 TIP to include a total of \$700,000 for the Urban Freeway Corridors Study which includes programing \$450,000 in WSDOT funds for the Study into year 2018, and \$215,000 of federal STBG dollars along with \$35,000 in local match in year 2019.

ACTION REQUESTED

Adoption of Resolution 03-18-05 This action will amend the FY 2018 UPWP to add the Urban Freeway Corridors Study work element, include it in the FY 2019 UPWP, and grant authority for RTC’s Executive Director to enter into an agreement with WSDOT for the funds to conduct the Study. It will also amend the TIP to program the Urban Freeway Corridors Study to 2019 from 2020.

ADOPTED this _____ day of _____ 2018,
by the Southwest Washington Regional Transportation Council.

SOUTHWEST WASHINGTON
REGIONAL TRANSPORTATION COUNCIL

ATTEST:

Ron Onslow
Chair of the Board

Matt Ransom
Executive Director

Attachments: FY 2018 UPWP UFCS Study Work Element
STIP Project Records

1 H URBAN FREEWAY CORRIDORS STUDY

The Urban Freeway Corridors Study will analyze near term operational, system management improvements, transit enhancements and other multimodal improvements on approximately 35 miles of urban freeways in the Vancouver region that could serve to make the transportation system operate more efficiently and predictably. The strategies could include approaches to get the most out of the existing system by using traffic management tools to optimize the flow of traffic and maximize available capacity as well as low cost capital improvements to address bottlenecks and merge weave conflicts. These improvements could also supplement future planned capital improvements in the study corridors.

While the overall scope of the study will encompass the Vancouver urban area freeway system, an important focus of the study will be on the I-5 corridor from the Columbia River to 179th Street, which was identified in RTC's Congestion Management Process as a crucial need to address as bi-travel demand continues to increase. The study will analyze, identify and recommend implementation of low-cost multimodal operational strategies for the Clark County transportation system

Strategies to improve transportation system management and operations (TSMO) provide a way to better manage roadways to get more efficiency out of the existing system. TSMO strategies are generally lower cost, can be implemented more quickly than capital projects and can reduce the impacts of congestion by reducing delay and improving travel time reliability.

Between 2011 and 2016, Clark County's population increased by almost 36,000 people, more than 8%. The Portland/Vancouver region added over 116,000 jobs, an increase of almost 10.5%, during the same time period. This growth is forecast to continue with population growing from 460,000 today to 600,000 in 2040. Past growth and future trends, as well as an improving economy over the last 5 years, are reflected in worsening traffic congestion on Clark County freeways.

WORK ELEMENT OBJECTIVES: UFCS

Investigate a wide range of transportation operational management strategies including regional management and operations, roadway management and operations, transit management, and traveler information.

A key foundational task for the operational study is origin destination analysis. It will identify access locations onto and leaving the freeway system and trip patterns at interchanges in the study area. O-D analytical tools developed for the UFCS will also be utilized for other study areas identified by WSDOT.

Specific strategies will include technology based advanced traffic management (ATM) techniques. ATM is intended to dynamically manage regular and non-recurring congestion based on current and predicted traffic conditions. ATM strategies include: adaptive ramp metering, dynamic speeds and dynamic lane control, and queue warning.

Consider integrated corridor management (ICM) strategies. Similar to ATM, ICM relies on advanced technology and real time roadway information for a common management approach to parallel roadway facilities in a single travel corridor. The study will identify applicable corridors for ICM treatment and make recommendations on corridors, segments, and improvements for implementation.

Evaluate low cost capital improvements that could address geometric constraints including bottlenecks and safety. Options could include ramp modifications, lane extensions, and mainline

reconfiguration/restriping improvements that would balance capacity, reduce weaving and merging conflicts, or other operations efficiencies.

Assess current and planned transit service in the study corridors and consider the role of transit enhancements as stand alone improvements or to supplement technology based strategies. It will include improved or expanded transit service along with bus on shoulder as a mobility improvement strategy.

Research and document a range of transportation demand management strategies to determine their contribution and role in managing mobility in the corridor.

A summary of the study activities and tasks is provided below:

- Origin-destination data collection and analysis
- Traffic data collection
- Traffic operational analysis
- Identification and screening of operational strategies and transit enhancements
- Hot spot identification including merge/weave problems and bottlenecks

RELATIONSHIP TO OTHER WORK ELEMENTS: UFCS

The UFCS supports goals for the efficiency, safety, and performance of the multimodal transportation system as defined in the Regional Transportation Plan and is consistent with the mix of transportation strategies needed to address future transportation system issues. It also relates to the VAST TSMO/ITS Work Program and the Congestion Management Process in that it will first consider transportation management, operational, and transit strategies to address system performance.

FY 2018/19 PRODUCTS: UFCS

- Conceptual design and cost estimates
- Findings and recommendations on an integrated set of low cost capital improvements and strategies for implementation.

FY 2018/19 Funding: UFCS

FY 2018/19

Revenues:

	\$
• WSDOT (O-D)	\$300,000
• WSDOT (Ops)	\$150,000
• Federal STBG	\$215,000
• Local Funds	\$35,000
	\$700,000

FY 2018/19

Expenses:

	\$
• RTC	\$100,000
• Consultants	\$600,000
	\$700,000

Washington State S. T. I. P.

2018 to 2021

(Project Funds to Nearest Dollar)

MPO/RTPO: RTC

Y Inside

N Outside

February 9, 2018

County: Clark

Agency: Clark Co.

Func Cls	Project Number	PIN	STIP ID	Imp Type	Total Project Length	Environmental Type	RW Required	Begin Termini	End Termini	Total Est. Cost of Project	STIP Amend. No.
17			WA-08889	03	1.330	CE	Yes	NE 87th Ave	NE 112th Ave	12,395,000	18-02

NE 119th Street East

Improve road to a standard four lane road with center turn lane, sidewalks, bike lanes, stormwater collection/treatment, and environmental mitigation/improvements. Utilities will be installed and/or improved.

Funding

Phase	Start Date	Federal	Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total
CN	2019		STP(UL)	1,150,000		0	5,293,000	6,443,000
CN	2020		STP(UL)	1,950,000		0	0	1,950,000
Project Totals				3,100,000		0	5,293,000	8,393,000

Expenditure Schedule

Phase	1st	2nd	3rd	4th	5th & 6th
CN	0	4,000,000	4,377,000	0	0
Totals	0	4,000,000	4,377,000	0	0

	Federal Funds	State Funds	Local Funds	Total
Agency Totals for Clark Co.	3,100,000	0	5,293,000	8,393,000

Washington State S. T. I. P.

2018 to 2021

(Project Funds to Nearest Dollar)

MPO/RTPO: RTC

Y Inside

N Outside

February 9, 2018

County: Clark

Agency: RTC

Func Cls	Project Number	PIN	STIP ID	Imp Type	Total Project Length	Environmental Type	RW Required	Begin Termini	End Termini	Total Est. Cost of Project	STIP Amend. No.
00			WA-09454	18		CE	No	County Wide	County Wide	700,000	18-02

Urban Freeway Corridors Operations Study

Analyze near-term operational and system management improvements on freeways in the Vancouver region that could serve to make the transportation system operate more efficiently and predictably.

Funding

Phase	Start Date	Federal	Fund Code	Federal Funds	State Fund Code	State Funds	Local Funds	Total
PE	2018			0		0	450,000	450,000
PE	2019		STP(UL)	215,000		0	35,000	250,000
Project Totals				215,000		0	485,000	700,000

Expenditure Schedule

Phase	1st	2nd	3rd	4th	5th & 6th
PE	450,000	250,000	0	0	0
Totals	450,000	250,000	0	0	0

	Federal Funds	State Funds	Local Funds	Total
Agency Totals for RTC	215,000	0	485,000	700,000