



The Regional Transportation Advisory Committee meeting will be held on **Friday, August 21, 2015**, from **9 a.m. to 11 a.m.**, in the **6th Floor Training Room 679**, Clark County Public Service Center, 1300 Franklin Street, Vancouver, Washington.

A G E N D A

- I. Call to Order and Approval of July 17, 2015 Minutes, Action
- II. 2015-2018 TIP Amendment: WSDOT Projects – Action
- III. Regional Project Evaluation and Prioritization – Action
- IV. I-205 Bus On Shoulder Feasibility Study - Discussion
- V. Clark County GMA Update-County Staff*
- VI. Other Business
 - A. RTAC Members
 - B. RTC Staff
 - a. TIB Grants Due Friday, August 21st
 - b. Regional Traffic Signals Workshop - October 1st
 - c. Connecting Washington

**Materials available at meeting*

*Served by C-TRAN Route 3 or 25
If you have special needs, please contact RTC*

20150821_RTAC_Agenda.docx

An advisory committee to:

Southwest Washington Regional Transportation Council

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**Regional Transportation Advisory Committee (RTAC)
Meeting Minutes
July 17, 2015**

I. Call to Order and Approval of Minutes

The meeting of the Regional Transportation Advisory Committee was called to order on Friday, July 17, 2015, at 9:00 a.m. in the Public Service Center 6th Floor Training Room, 1300 Franklin Street, Vancouver, Washington by Bob Hart, RTC. Those in attendance follow:

| | |
|-----------------|------------------------|
| Gary Albrecht | Clark County |
| Katy Brooks | Port of Vancouver |
| Ken Burgstahler | WSDOT |
| Jennifer Campos | City of Vancouver |
| Jim Carothers | City of Camas |
| Rob Charles | City of Washougal |
| Tony Cooper | City of La Center |
| Lynda David | RTC |
| Chuck Green | C-TRAN |
| Jim Hagar | Port of Vancouver |
| Bob Hart | RTC |
| Mark Herceg | Battle Ground |
| Bryan Kast | City of Ridgefield |
| Colleen Kuhn | Human Services Council |
| Jon Makler | ODOT |
| Chris Malone | City of Vancouver |
| John Mermin | Metro |
| Katie Nelson | C-TRAN |
| Matt Ransom | RTC |
| Dale Robins | RTC |
| Shann Weishaar | RTC |
| Susan Wilson | Clark County |

Matt Ransom, RTC Executive, asked if there were any changes or corrections to the June 19, 2015, meeting minutes and asked for a motion for approval.

KATY BROOKS, PORT OF VANCOUVER, MOVED FOR APPROVAL OF THE JUNE 19, 2015 MEETING MINUTES, AND SUSAN WILSON, CLARK COUNTY, SECONDED THE MOTION. THE MOTION WAS APPROVED WITH ROB CHARLES, CITY OF WASHOUGAL, ABSTAINING.

II. TIB Project Development - Discussion

Dale Robins, RTC, explained this agenda item is for the purpose of beginning to outline a set of projects from our region for potential submittal to the Transportation Improvement Board (TIB) for statewide competitive funding. Dale reminded RTAC that TIB uses a banding evaluation process for its Urban Arterial Program. The four bands are Safety, Growth & Development, Mobility and Physical Condition. The grant application deadline is August 21st which means applications need to

be postmarked by August 21st. TIB application review will be from September through October and the TIB Board selection will be announced on November 20th, 2015.

Following are the projects that agencies are planning to submit to TIB for funding. Vancouver has the 18th Street Corridor, from Four Seasons to 138th Avenue, for \$4 million and also the sidewalk project adjacent to Clark College for which they have applied for CMAQ funds and will apply for TIB as local match. Ridgefield is proposing to apply for \$1 million to help fund the 35th Avenue/Pioneer Street Roundabout and will also seek \$250,000 for pavement preservation. Battle Ground will be applying for funding for 20th Avenue. La Center is planning to apply for additional money for their 4th Street and Pacific Highway projects in the amount of \$650,000 and will also apply for preservation program funds for the overlay of Pacific Highway from 5th Street to the end of the curve. Clark County Public Works will apply for funding for the 10th Avenue project over Whipple Creek from 154th Street to 164th Street. Washougal and Camas indicated they will not seek TIB funding this year.

RTC is offering to provide a letter of support again this year for any agencies applying for funding.

III. Local Agency Transportation Project Updates – Discussion.

Dale Robins, RTC, went around the table asking each agency to give a brief update on projects they had either in the planning stages, are under construction or have recently completed. Agencies including Clark County, the Cities of Washougal, La Center, Battle Ground, Vancouver, Ridgefield and Camas, WSDOT, the Human Services Council, ODOT, Metro, C-TRAN and the Port of Vancouver gave project updates. Projects ranged from overpass construction design, a number of completed arterial projects, construction on State Routes and Interstates, including travel time reader boards. Many slurry seal projects and traffic system optimization projects are being scheduled along with sidewalk and ADA compliance improvements, multimodal projects, special needs transportation projects and rail projects. A few agencies mentioned their Comprehensive Plan and transportation plan updates and development of Transportation Benefit Districts. An RTAC member commented it was good to see projects having Complete Streets elements. Matt Ransom, RTC, thanked the agencies for sharing their project updates and reminded members to let RTC know when a project is complete so that a Project Showcase can be completed.

IV. Federal Obligation Status - Discussion

Dale Robins, RTC, announced that all agencies have done an outstanding job obligating funding for projects that, per WSDOT policy, have to be obligated by August of each year. Dale announced that the State is now doing advance construction which means you can go ahead with your project but will not get reimbursement until later. Dale also wanted all to be aware of TIP Policy 3.2 recognizing grants awarded through RTC.

V. CMP Toolbox Checklist - Discussion

Dale Robins, RTC, said that one of the components of the Congestion Management Process is a toolbox of congestion reduction and mobility strategies. Dale explained the intent of this toolbox is

to come up with ways to deal with congestion and mobility issues prior to roadway widening projects. To comply with RTC's policy, each jurisdiction that is adding new travel lanes or roadways must complete the CMP Toolbox Checklist prior to obligation of right-of-way. The checklist requirement does not include the addition of a center turn-lane. There will be a Document/Form on RTC's TIP website and RTC will send out a reminder in January to complete the Checklist. At this time, the only project in the region that will be required to complete the CMP Toolbox Checklist is the City of Vancouver's 18th Street project.

VI. I-205 Bus On Shoulder Study - Discussion

Matt Ransom, RTC Director, asked that the I-205 Bus On Shoulder item be moved to the August 21, 2015 RTAC meeting do to time running out.

VII. Legislative Update

Matt Ransom, RTC Director, handed out a list of projects from this region included in the State's 2015 transportation package. This is a \$16 billion package and is the largest in Washington State history. The full list is located on the State's Legislative website. The region will now work towards project implementation.

VIII. Other Business

A. RTAC Members

B. RTC Staff

- a) WSDOT Freight Classification Count Request – Lynda David, RTC, let the group know that WSDOT is updating the Freight and Goods Transportation System and is requesting freight data for City streets. RTC staff had previously forwarded the date request to RTAC members. The deadline for the submittal is August 24th, 2015.
- b) STP/CMAQ applications are due Friday, July 17th, 2015.
- c) TIB grant applications are due Friday August 21st.
- d) By August 15th, 2015, all projects, including all proposed projects that have applied for federal funding, need be entered into the 2016 STIP database system. Dale re-emphasized that every regionally significant project needs to be entered in the STIP by August 15th.

The meeting adjourned at 11:00 a.m. The next meeting will be on Friday, August 21, 2015.



MEMORANDUM

TO: Regional Transportation Advisory Committee
FROM: Dale Robins
DATE: August 14, 2015
SUBJECT: 2015-2018 TIP Amendment: WSDOT Projects

INTRODUCTION

All regionally significant projects must be listed in the metropolitan Transportation Improvement Program (TIP), which in turn become a part of the State Transportation Improvement Program (STIP).

WSDOT is proposing to add two projects to the 2015-2018 STIP, the addition of these projects will allow design on both projects to proceed this fall. The STIP project record report is attached to this memorandum.

As part of the Connecting Washington package, WSDOT is proposing to add the SR-502/SR-503 Vic – Roadway Improvements project to the 2015-2018 STIP. This project provides \$7.7 million in state funds for improvements along the state highway in the Battle Ground area.

WSDOT is also proposing to add the I-5/NB Interstate Bridge – South Tower Trunnion Replacement project to the 2015-2018 STIP. This project will provide approximately \$4.8 million for the replacement of the trunnion. This represents WSDOT's half of the replacement costs, with Oregon providing the other half of the cost.

RTAC is asked to recommend adoption of this TIP amendment by the RTC Board. This amendment is found to be consistent with all state and federal requirements.

POLICY IMPLICATION

This amendment is consistent with the Congestion Management Process, air quality requirements, and is financially constrained. This amendment meets the goals of the Regional Transportation Plan (RTP) by enhancing mobility and preserving the regional transportation system.

BUDGET IMPLICATION

Action on this amendment will program approximately \$12.5 million in funds to enhance the state highway system in Clark County. This includes \$4.7 million in federal Highway Bridge (BR) funds, \$7.7 million in Connecting Washington funds, and \$0.1 million in local WSDOT funds.

Attachment

20150821-RTAC-TIPAmend-WSDOTProjects.docx

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Washington State S. T. I. P.
2015 to 2018
(Project Funds to Nearest Dollar)
totals for years 2015 thru 2018

Report Date - August 13, 2015

Selection Criteria (from SEARCH panel - if any)

| | |
|-------------------------------|---------------------|
| Agency | MPO Project ID |
| County | Agency Project ID |
| MPO | Secured Y |
| Inside MPO | Planned |
| Region | Amended |
| Amendment Number 15-09 | Is New |
| Environmental Classification | Current Action |
| Priority Number | Future Action |
| PIN | Approved as of Date |
| Title | Federal Fund Code |
| STIP ID | State Fund Code |

Washington State S. T. I. P.

2015 to 2018

(Project Funds to Nearest Dollar)

MPO/RTPO: RTC

Y Inside

N Outside

August 13, 2015

County:

Agency: WSDOT - SW

| 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. |
|----------|----------------|---------|-----------|----------|----------------------|--------------------|-------------|---------------|-------------|----------------------------|-----------------|
| 11 | | 400518T | 400518T06 | 40 | 0.270 | CE | No | 0 | 0.27 | 4,784,000 | 15-09 |

I-5/NB Interstate Bridge - South Tower Trunnion Replacement

Repair existing bridge by replacing lift span trunnion shaft on the south tower. This includes WSDOT's portion of 50% of the total, which is shared with ODOT.

Funding

| Phase | Start Date | Federal | Fund Code | Federal Funds | State Fund Code | State Funds | Local Funds | Total |
|-----------------------|------------|---------|-----------|------------------|-----------------|-------------|----------------|------------------|
| PE | 2015 | | BR | 464,640 | | 0 | 19,360 | 484,000 |
| CN | 2018 | | BR | 4,214,000 | | 0 | 86,000 | 4,300,000 |
| Project Totals | | | | 4,678,640 | | 0 | 105,360 | 4,784,000 |

Expenditure Schedule

| Phase | 1st | 2nd | 3rd | 4th | 5th & 6th |
|---------------|---------------|----------------|----------------|----------------|------------------|
| PE | 15,342 | 167,132 | 165,362 | 136,164 | 0 |
| CN | 0 | 0 | 0 | 8,883 | 4,291,117 |
| Totals | 15,342 | 167,132 | 165,362 | 145,047 | 4,291,117 |

Washington State S. T. I. P.

2015 to 2018

(Project Funds to Nearest Dollar)

MPO/RTPO: RTC

Y Inside

N Outside

August 13, 2015

County:

Agency: WSDOT - SW

| 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. |
|----------|----------------|---------|-----------|----------|----------------------|--------------------|-------------|---------------|-------------|----------------------------|-----------------|
| 14 | | 450218W | 450218W06 | 03 | 0.860 | DCE | Yes | 6.70 | 7.56 | 7,700,000 | 15-09 |

SR 502/SR 503 Vic - Roadway Improvements

Provide congestion relief at the intersection of SR 502 and SR 503.

Funding

| Phase | Start Date | Federal Funds | | State Fund Code | State Funds | Local Funds | Total |
|-----------------------|------------|---------------|-----------|-----------------|------------------|-------------|------------------|
| | | Federal | Fund Code | | | | |
| PE | 2015 | 0 | | CWA | 800,000 | 0 | 800,000 |
| RW | 2017 | 0 | | CWA | 1,000,000 | 0 | 1,000,000 |
| CN | 2018 | 0 | | CWA | 5,900,000 | 0 | 5,900,000 |
| Project Totals | | 0 | | | 7,700,000 | 0 | 7,700,000 |

Expenditure Schedule

| Phase | 1st | 2nd | 3rd | 4th | 5th & 6th |
|---------------|----------------|----------|------------------|------------------|-----------|
| PE | 800,000 | 0 | 0 | 0 | 0 |
| RW | 0 | 0 | 1,000,000 | 0 | 0 |
| CN | 0 | 0 | 0 | 5,900,000 | 0 |
| Totals | 800,000 | 0 | 1,000,000 | 5,900,000 | 0 |

| Federal Funds | | State Funds | Local Funds | Total | |
|------------------------------|--|-------------|-------------|---------|------------|
| Agency Totals for WSDOT - SW | | 4,678,640 | 7,700,000 | 105,360 | 12,484,000 |



MEMORANDUM

TO: Regional Transportation Advisory Committee
FROM: Dale Robins
DATE: August 14, 2015
SUBJECT: **Regional Project Evaluation and Prioritization**

INTRODUCTION

The Transportation Improvement Program (TIP) programs and prioritizes regionally significant transportation projects for the Clark County region. As the Metropolitan Planning Organization for the region, RTC has selection and programming authority for the Surface Transportation Program (STP), Congestion Mitigation and Air Quality (CMAQ) Program, and the Transportation Alternatives Program (TAP). Projects selected under these programs will be combined with projects selected through other selection processes to form the final TIP. The RTC Board of Directors is scheduled to adopt the 2016-2019 TIP at their October meeting, and projects programmed in the TIP can be implemented beginning in January 2016.

The current TIP project evaluation and prioritization process will be the basis for project selection and programming of 2019 STP-Urban and CMAQ funds. TAP and STP-Rural projects were previously selected. Projects currently programmed in the 2015-2018 TIP can be rolled back into the 2016-2019 TIP.

The purpose of this memorandum is to seek concurrence with the evaluation and ranking of projects against the regional selection criteria. At the August meeting, RTAC will also be asked to recommend adoption of the evaluation and ranking of STP-Urban and CMAQ projects to the RTC Board of Directors. In addition, RTAC will begin discussion of the selection and programming of projects.

TIP PROJECT SELECTION PROCESS

As adopted, the TIP project selection process includes the following three steps: 1) Project Screening, 2) Evaluation and Ranking by Selection Criteria, and 3) Project Selection and Programming.

1. Project Screening: Projects are reviewed for consistency with the Regional Transportation Plan (RTP), land use plans, air quality goals, and regional screening criteria.

Based on needs identified in the RTP, individual public agencies submit a project application for their priority projects. Projects are then screened by regional screening criteria to ensure eligibility. There were 15 project applications submitted to RTC, including six VAST projects.

Project applications were screened and all projects are considered eligible to compete for STP/CMAQ funding.

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2. Evaluation and Ranking by Selection Criteria: Each project is evaluated and ranked against a set of adopted selection criteria.

Projects have been evaluated by the adopted regional selection criteria (attached). In addition, there were four No Capital/Planning projects that do not fit into the evaluation process. RTC staff has also provided an opportunity for staff from applicant agencies to review the accuracy of the evaluation, prior to the RTAC meeting. During the agency review, concerns were expressed about separating VAST projects and how transit is evaluated. Discussion of these items will be brought to the August RTAC meeting.

STP-UL (Urban Large): Based on the evaluation by adopted regional criteria, STP-UL projects are ranked in the following order:

Proposed STP-UL Projects

| Rank | Agency | Project | Mobility | Mmodal | Safety | ED | Finance | AQ | Total |
|------|---------------|--|-------------------------------|--------|--------|----|---------|----|-------|
| 1 | Clark County | NE 119th St., 50th Av. to 72nd Av. | 5 | 11 | 12 | 15 | 14 | 8 | 65 |
| 2 | Clark County | Highway 99, 63rd St. to 78th St. | 12 | 7 | 12 | 12 | 13 | 6 | 62 |
| 3 | Clark County | NE 10th Av., 154th St. to NE 164th St. | 3 | 15 | 8 | 10 | 13 | 10 | 59 |
| 4 | Battle Ground | SW 20th Av., Scotton to Eaton | 2 | 7 | 13 | 12 | 0 | 8 | 42 |
| 5 | Battle Ground | SW 20th Av., SW 6th St. to Scotton | 2 | 8 | 11 | 12 | 0 | 8 | 41 |
| N/A | RTC | UPWP & CMP | No Capital - Planning Project | | | | | | |
| N/A | RTC | VAST Coordination | No Capital - Planning Project | | | | | | |
| N/A | Vancouver | Clark County TDM | No Capital - Planning Project | | | | | | |

CMAQ: For CMAQ funding, air quality points are tripled to determine the rank order. Based on the evaluation, CMAQ projects are ranked in the following order:

Proposed CMAQ Projects

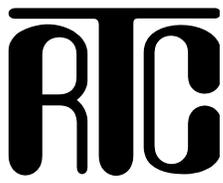
| Rank | Agency | Project | Mobility | Mmodal | Safety | ED | Finance | AQ | Total |
|------|--------------|-------------------------------------|-------------------------------|--------|--------|----|---------|----|-------|
| 1 | Vancouver | Mill Plain Blvd. Arrival on Green | 19 | 15 | 16 | 15 | 7 | 27 | 99 |
| 2 | Clark County | WRIGHT | 6 | 13 | 5 | 17 | 7 | 24 | 72 |
| 3 | WSDOT | SR-14 ATIS Infill, I-5 to Evergreen | 17 | 7 | 6 | 12 | 7 | 21 | 70 |
| 4 | C-TRAN | Mill Plain TSP Phase II | 18 | 8 | 0 | 13 | 11 | 18 | 68 |
| T5 | C-TRAN | (2) All Electric Buses | 20 | 9 | 0 | 5 | 10 | 12 | 56 |
| T5 | Vancouver | BRT Corridor Sidewalks | 9 | 12 | 5 | 7 | 5 | 18 | 56 |
| N/A | WSDOT | Centralized Signal System | No Capital - Planning Project | | | | | | |

This ranking of potential projects for 2019 funding as listed completed the second of the three step TIP development process. The request before RTAC will be to concur with the evaluation and ranking of projects based on regional selection criteria. RTAC's recommendation of the evaluation and ranking of projects will be taken to the RTC Board of Directors.

3. Project Selection and Programming: Projects are programmed for funding utilizing the project information generated by the project evaluation and ranking.

RTC staff will be prepared at the August RTAC meeting with a proposed STP/CMAQ programming recommendation for RTAC discussion, which can be presented following the recommendation on ranking projections. A recommendation on the selection and programming of projects will occur at the September RTAC meeting.

Attachment



RTC Selection Criteria

Transportation Improvement Program

Project Screening Criteria

1. Is the project consistent with Regional Transportation Plan (RTP), Local Comprehensive Plans, and Congestion Management Process? (*Road and transit projects that add capacity must be listed in the RTP*)
2. If a road project, is the facility federally classified as an urban collector/rural minor arterial or above?
3. Is the project an improvement project, rather than a maintenance project?
4. Does the request for STP/CMAQ funds exceed the regional cost limitation of \$4,000,000 per mile?
5. Is the project ready to proceed and has a reasonable timeline for implementation?
6. If an operational improvement, does the project follow TSMO guidance?

Summary of Needs Criteria

| <u>Evaluation Criteria</u> | <u>Weight</u> |
|----------------------------|---------------|
| Mobility | 20 |
| Multimodal/Operations | 15 |
| Safety | 20 |
| Economic Development | 20 |
| Financial/Implementation | 15 |
| Sustainability/Air Quality | <u>10</u> |
| | 100 |

Mobility 20 Maximum

| | |
|---|---------------------------------|
| Existing Peak Hour Condition | 0-8 |
| <ul style="list-style-type: none"> • V/C Ratio 0.9 or greater/Less than 60% of Posted Speed • V/C Ratio 0.8 to 0.89/60-64% of Posted Speed • V/C Ratio 0.7 to 0.79/65-69% of Posted Speed • V/C Ratio 0.5 to 0.69/70-74% of Posted Speed • Transit (Unless corridor can be identified) | 8 6 4 2 5 |
| RTP 20-Year Model | 0-4 |
| <ul style="list-style-type: none"> • V/C Ratio Reduced 0.2 or more • V/C Ratio Reduced 0.1 • V/C Ratio Reduced 0.05 • Modeled Speed Improvement | 4 2 1 1-4 |
| Congestion Management Process | 0-6 |
| <ul style="list-style-type: none"> • On CMP Network • Project Addresses CMP Concern | 2 0-4 |
| Network Development | 0-4 |
| <ul style="list-style-type: none"> • Extends Improvements • Completes Gap • Completes Corridor • New Network Connection • Improves Parallel Corridor | 1-2 2-3 3-4 0-4 0-2 |

| | |
|--|--------------------------|
| Truck Route | 0-5 |
| • T5-T1 | 1-5 |
| Benefit Weighted by Existing Peak Hour Volume | 0-3 |
| • 1,501+ Vehicles | 3 |
| • 901-1,500 Vehicles | 2 |
| <u>Multimodal/Operations</u> | <u>15 Maximum</u> |
| Operational Improvements | 0-8 |
| • Signal integration/upgrade | 2 |
| • Data Collection (Volume, speed, occupancy, classification) | 2 |
| • Traffic Surveillance | 2 |
| • Communication Infrastructure | 2 |
| • Variable message signage | 2 |
| • Traveler Information | 2 |
| • Access Management | 2 |
| • Smart Transit Management/Transit Signal Priority | 2 |
| Multimodal | 0-10 |
| • Transit Expansion | 0-8 |
| • Peak Hour Transit Buses (1 point per 2 Buses) | 0-5 |
| • Transit Replacement | 0-3 |
| • Exclusive Transit Lanes (Transit Only, BAT Lanes, etc.) | 2-8 |
| • Transit Amenities (Shelter, Bus-Pullout) | 0-2 |
| • Park and Ride Construction | 5-8 |
| • Carpool/Vanpool | 1-3 |
| • Improve Non-Motorized Access to Park and Ride/Transit | 1-2 |
| • Extends or Completes gap in Bicycle Route | 1-3 |
| • Construct 10-foot separated path or two 5-foot striped bicycle lanes | 2 |
| • Sidewalks (Both Sides) | 1-2 |
| • Sidewalks wider than 5' and/or Planter Strip (3' minimum) | 1-3 |
| • Improves Transit Speed/Reliability | 1-3 |
| • Transportation Demand Management | 1-3 |
| • Contact C-TRAN's Capital Project Manager (10+ days) | 1 |
| • Adopted Complete Street Policy | 1 |
| <u>Safety</u> | <u>20 Maximum</u> |
| Correctable Collision History | 0-10 |
| • Sliding Scale | 0-10 |
| Safety Strategies Implemented | 0-10 |
| • Public Transit Safety or Security | 1-5 |
| ➤ Security Camera | |
| ➤ Lighting | |
| ➤ Improve Visibility | |
| • Pedestrian Safety | 1-5 |
| ➤ Add sidewalk where one does not exist | |
| ➤ ADA accessibility | |
| ➤ Wider sidewalk | |
| ➤ Buffer | |
| ➤ Improved Street Crossing (crosswalk/signal) | |

- Lighting
- Improve Access to Transit
- Target Zero Strategy
- Bicycle Safety 1-5
 - Add Striped Bicycle Lane
 - Add Separated Path
 - Buffer
 - Improves Access to Transit
 - Target Zero Strategy
- Improves Intersection 1-5
 - Provide Appropriate Traffic Control
 - Improves Visibility/Sight Distance
 - Improves Geometry/Approach
 - Address Collisions at Intersection Identified in Safety Management Assessment
 - Target Zero Strategy
- Improve Road Safety 1-5
 - Improve Clear Zone
 - Improve Geometry
 - Improve Visibility/Sight Distance
 - Add Rumble Strips, raised markers, barrier/guardrail
 - Target Zero Strategy

Existing Conditions 0-6

- Pavement Widths (Deviation from standards) 0-2
- Shoulder Widths (1 pt. per 2 feet less than 6') 0-3
- No Center Turn lane/Pocket (Project must correct) 1

Provides Access Management 0-6

- Add Non-Traversable Median greater than 50% of project length 3
- Add C-Curb at Intersections or less than 50% of project length 2
- Close Minor Intersections 1
- Reduce Access Points 2
- Eliminate Existing At-Grade Crossing 5

Economic Development 20 Maximum

Employment Growth 0-12

- Retail Employment Growth (Regional Model-Select Link) 0-5
- Other Employment Growth (Regional Model-Select Link) 0-7

Provide or Improves Access to Existing Employment and CTR Employers 0-8

- Existing Employment (Regional Model-Select Link) 0-8

Freight Generator 0-5

- Improves Access 1-3
- Creates Access 4-5

Private Development 1-5

- Signed Development Agreements 1-3
- Private Investment in Public Infrastructure 1-3

Financial/Implementation**15 Maximum**

| | |
|--|-------------|
| Overmatch Funding | 0-10 |
| • 1 Point per 3% Above Minimum Local Match | |
| Previously Completed Work (Prior to application deadline) | 0-6 |
| • Environmental Permits Submitted/Approved | 1-2 |
| • Plans, Specs, and Estimate Completed | 2 |
| • Right of Way Acquisition Complete | 2 |
| • No Sensitive Areas or Issues Pending | 2 |
| Full Funding In Place | 3 |

Sustainability/Air Quality**10 Maximum**

| | |
|--|-------------|
| Air Quality Benefit | 0-10 |
| • TCM Tools (Reduction of CO and VOC) | 0-10 |
| Sustainability Measures | 0-10 |
| • LID or Enhanced Treatment Stormwater Control | 2 |
| • Hardscaping or Native Planting (no permanent irrigation) | 1 |
| • Correction of Fish Barrier | 0-3 |
| • Enhances Stream Bank Conditions | 1 |
| • Corrects Existing Sensitive Area Impacts | 2 |
| • Appropriate Reduction in Existing Pavement Width | 0-3 |
| • Replace or Install Low Energy Street Lighting | 3 |
| • Reuse/Recycling of Materials | 2 |
| • In-Place Pavement Reconstruction or Structural Retrofit | 2 |

RTC Selection Criteria_20150417.doc



MEMORANDUM

TO: Regional Transportation Advisory Committee
FROM: Bob Hart
DATE: August 14, 2015
SUBJECT: **I-205 Bus on Shoulder Feasibility Study**

BACKGROUND

The purpose of this memorandum is to introduce the Bus on Shoulder Feasibility Study, describe examples of bus on shoulder in other regions, outline the draft scope of work, and summarize the decision making process for the study.

A preliminary assessment of bus on shoulder (BOS) in the I-205 corridor conducted as part of the Access and Operations (AO) Study found that it offers the opportunity for improved transit reliability, travel time savings, expanded transit ridership and can facilitate low-cost transit expansion in the corridor. While the high level assessment showed many potential benefits of BOS, there are still significant unknowns regarding its operation. These include understanding how it operates alongside adjacent vehicle traffic and at high volume interchanges, as well as how it would work in coordination with incidents and law enforcement/public safety needs. The region also needs to learn more about the roadway infrastructure requirements of a bus on shoulder operation such as shoulder width and pavement depth. As a result, the AO transit recommendation called for a feasibility study of the technical, policy, and engineering opportunities and constraints of BOS operations in the I-205 corridor. The I-205 Bus on Shoulder Study is structured to answer these questions, to identify other technical issues, and address the policy and legal requirements needed for successful BOS operation.

The first phase of the study will outline the technical and engineering considerations for BOS in the I-205 corridor. At the completion of phase one, regional policy makers will determine whether to move forward with a more comprehensive phase two feasibility study and consider regional BOS policies. A detailed phase two scope would be developed if the region agrees that implementing a bus on shoulder project in the corridor should be considered.

WHAT IS BUS ON SHOULDER?

Bus priority treatments on streets and highways have been operating effectively throughout the United States for about a half century. Many bus on shoulder systems have been built over the last 20 years and are now a widely accepted treatment to improve transit reliability and mobility. A BOS system is a relatively simple concept in that it allows transit vehicles to use the shoulder on a freeway or major arterial during times of heavy congestion. Although there are BOS systems on both types of roadways, this summary focuses only on freeway systems since they are applicable to the I-205 corridor.

The general operating protocol is that buses that normally operate in regular traffic lanes would move to shoulder when mainline travel speeds drop below a predefined speed. In many regions

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I-205 Bus on Shoulder Feasibility Study

July 10, 2015

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the speed threshold is set at 35 mph. Since buses operate in the shoulder only during specified traffic conditions, a more descriptive name for this might be “dynamic” BOS. In addition, buses on the shoulder do not operate more than 15 to 20 mph faster than the adjacent traffic, depending on bus driver training, shoulder characteristics, ramp conflicts, local operating protocols.

In some regions, buses stay on the shoulder continuously, including past interchanges. In other systems, buses will merge back into general purpose traffic lanes at high volume interchanges and return to the shoulder after passing the interchange. In addition, problems with emergency vehicles or incidents with buses on shoulder are minimized with buses merging back into general traffic flow to get around the event.

A BOS system differs from a strategy called hard shoulder running. While a hard shoulder running system is also utilized during periods of heavy congestion, it is open to general purpose traffic or carpool vehicles and, because of this, carries significantly higher vehicle volumes.

BUS ON SHOULDER IN THE UNITED STATES

As of 2012, there were about fifteen BOS systems operating in the United States. Most of them operate on the outside shoulder with a few using the inside shoulder. The systems range from just a few miles in length, such as in San Diego, up to comprehensive systems, like the Minneapolis-St. Paul region, with a 300 mile network of bus on lanes. Some systems operate only between interchanges with others serving as continuous lanes along a corridor. A common thread for the BOS systems has been the flexibility to develop each system in accordance with the needs and characteristics of their local operating environment. Many of the systems in operation have used the Minnesota experience as a template. After the planning and initial development they have first implemented demonstration projects, and have often used the same transit/traffic speed differential and the same operating rules for incidents or other vehicles on the shoulder.

A short summary of four different bus on shoulder systems is described below:

Minneapolis, Minnesota: The Twin Cities region has a 300 mile network of BOS lanes. They operate on the outside shoulder and are not restricted by time of day. Buses can use the shoulder anytime the freeway speeds drop below 35 mph and can operate up to 15 mph faster than adjacent traffic. The first BOS corridor was implemented quickly in response to a Mother’s Day flood in 1993 that closed a bridge on I-35, one of the major access points into the city. Within ten days, freeway shoulders were restriped and BOS was implemented, providing an alternate route into the city. This emergency test operation was so successful that officials began to look at applying it to other corridors. At the beginning of the development process the goal was simply based on the opportunity for easy implementation. There were no shoulder or pavement depth standards, although these standards were developed later as the system grew and matured.

Miami, Florida: Nine miles of BOS were opened on SR-874 and SR-878 in 2007 following a planning study that was completed in 2005. The study identified the adequacy of the shoulders, the amount of emergency service vehicles using the shoulders, and current, planned transit services and established criteria for use of the shoulder. In Miami, buses are allowed to operate on the outside freeway shoulder anytime speeds drop below 25 mph. This is different than Twin Cities, where the traffic threshold for transit use of the shoulder is 35 mph or less. Buses in Miami are not allowed to operate more than 15 mph faster than vehicle traffic. They must also

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yield to entering, merging, and exiting traffic and to emergency and law enforcement vehicles. When the shoulder is occupied by a disabled vehicle, law enforcement, or other obstacles buses are required to move into the general purpose traffic lane. These operating rules are similar to Minnesota's.

Atlanta, Georgia: The first BOS lane opened in 2006 with a 6 mile segment, and recently expanded to 12 miles, on the GA-400 freeway. GA-400 is a 6 to 8 lane high volume facility and, while BOS has been in place for almost 10 years, the Georgia Department of Transportation technically considers it an interim treatment, until the freeway can be widened with managed lanes. When the system first opened it was estimated that commute buses were saving an average 5 to 7 minutes of travel time with a time savings of up to 25 minutes during major freeway incidents. The operating protocols are similar to Twin Cities, in that buses use the shoulder only when travel speeds are less than 35 mph with buses limited to speeds no more than 15 mph faster than the traffic flow. The key difference in operating rules compared to Twin Cities are that buses must always merge back into general purpose traffic lanes ahead of interchange off-ramps and cannot re-enter the shoulder until after the end of the on-ramp weave. In the Twin Cities, with some exceptions at high volume interchanges, buses stay on the shoulder through the interchange.

Chicago, Illinois: PACE, the suburban division of the Chicago Regional Transit Authority, implemented BOS in 2011, with a 15 mile segment on I-55. Like many other systems buses are allowed to use the shoulder when freeway speeds drop below 35 mph. Transit vehicles cannot travel more than 15 mph faster than general purpose traffic and are limited to a maximum speed of 35 mph. Unlike Minnesota, BOS operation is restricted by time of day allowing use only from 5-9 AM in the northbound direction and 3-7 PM southbound. Unlike the other systems, PACE is an inside shoulder system. The left shoulder was selected in order to minimize conflicts with ramps and interchanges. In addition, the outside shoulder on I-55 is narrower on several segments with more physical constraints than the inside shoulder. Like other regions, emergency use of the shoulder has priority. Buses are required to leave the shoulder if it is occupied for any reason.

I-205 FEASIBILITY STUDY TASKS

The full I-205 Feasibility Study is envisioned to occur in two steps. Step one is a planning phase which will outline the policy, technical, engineering, and cost considerations for a BOS operation. The second part of the study will depend on the results of the planning phase. At the completion of phase one, regional policy makers will determine whether to move forward with a comprehensive phase two feasibility study that would include a detailed bus service plan, needed physical improvements, bus operating protocols, and capital costs.

The study corridor encompasses the I-205 corridor from the 18th Street interchange, now under construction, south to the I-84 interchange and on SR-14 from I-205 to 164th. SR-14 is included because of the high congestion levels and the number of commuter buses using SR-14 that travel between Fisher's Landing Park and Ride facility. Although the detailed analysis will focus on I-205 and SR-14, the transit influence area may extend as far north as the Salmon Creek interchange in order to understand the technical issues and physical characteristics of the corridor associated with a BOS system if and when C-TRAN expands transit service north of 18th Street.

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Refinement of the corridor and BOS termini will occur under the BOS service and operating concept task.

The study tasks address only the first phase of the study; a phase two scope would be developed if the region agrees to advance a comprehensive feasibility study.

A flow chart of the study tasks are shown in attachment 1.

AGENCY ROLES AND DECISION PROCESS

RTC will be the project lead for the overall study and the management of work tasks. Study partners consist of agencies that would be directly involved or affected by a bus on shoulder operation. A future system would operate on state facilities in Washington and Oregon, utilize C-TRAN resources and affect Tri-Met facilities. In addition, Metro and RTC, as the Metropolitan Planning Organizations for the Portland/Vancouver regions, have direct responsibility for regional transportation planning. All of these agencies will be partners in the study process.

RTC will be supported by a Technical Advisory Committee (TAC) made up of representatives from the Washington State Department of Transportation, C-TRAN, Oregon Department of Transportation, Tri-Met, Metro and RTC. The Bus on Shoulder TAC will provide support regarding analysis approach and results, and input on development of scenarios and operational protocols. It will also provide technical and engineering expertise, and ensure consistency of study activities with transportation goals and policies of their respective agencies.

RTC will also provide periodic updates to the Bi-State Coordination Committee. The Committee will review and comment on study milestones and provide input on issues and questions of bi-state significance. In addition, RTC will engage with the Federal Highway Administration and the Federal Transit Administration when necessary to inform them of study progress and ensure coordination on transit use of interstate facilities and regulatory or other requirements.

A chart of the decision process is shown on attachment 2.

NEXT STEPS

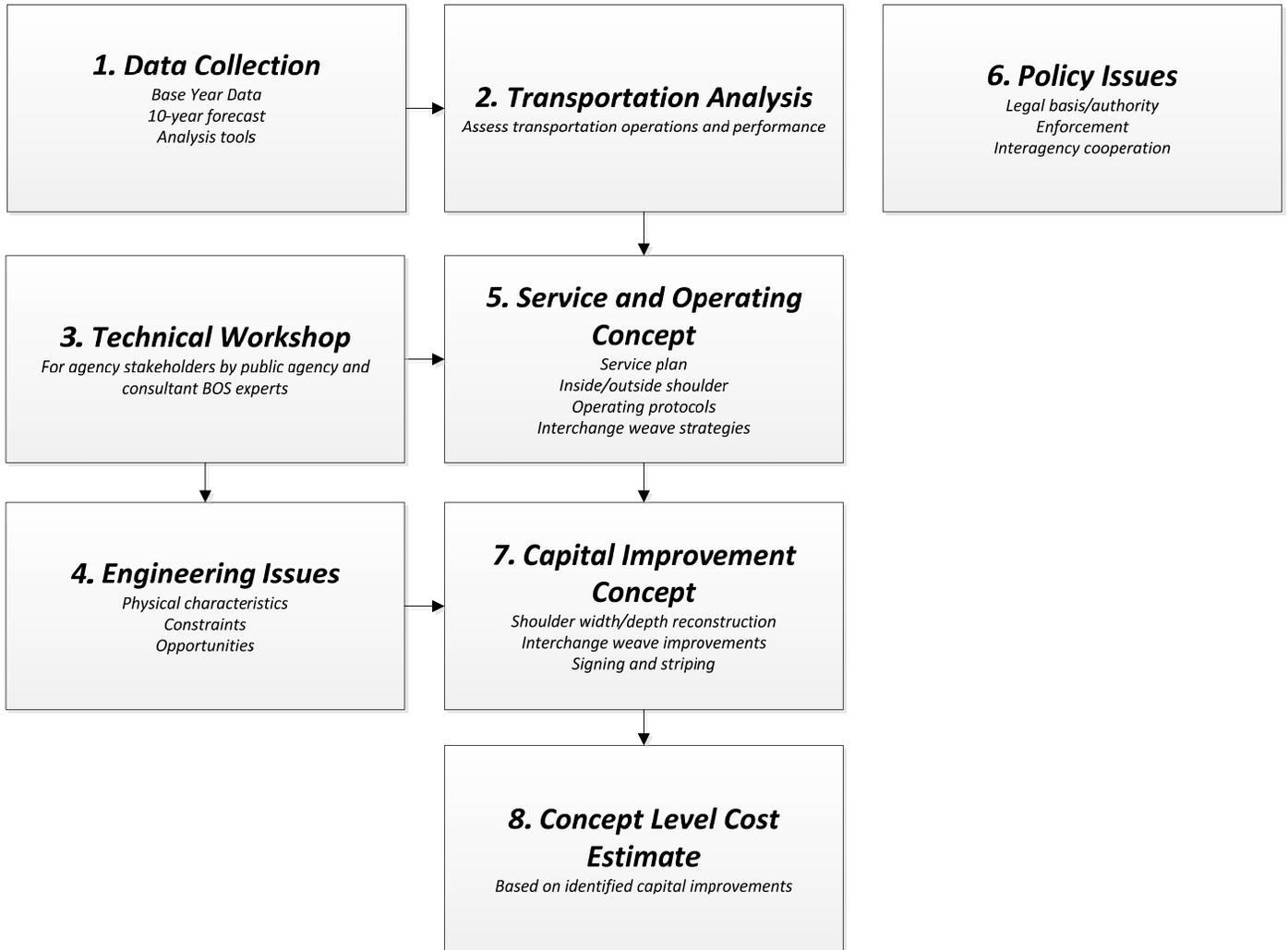
RTC met with WSDOT, ODOT, C-TRAN, Tri-Met and Metro to review the scope of work on July 16 and will be refining the scope based on input from the meeting. In addition, staff presented an overview of the scope to the Bi-State Coordination Committee at their July 30th meeting.

RTC is working to finalize the scope of work and develop a budget and funding plan for the study.

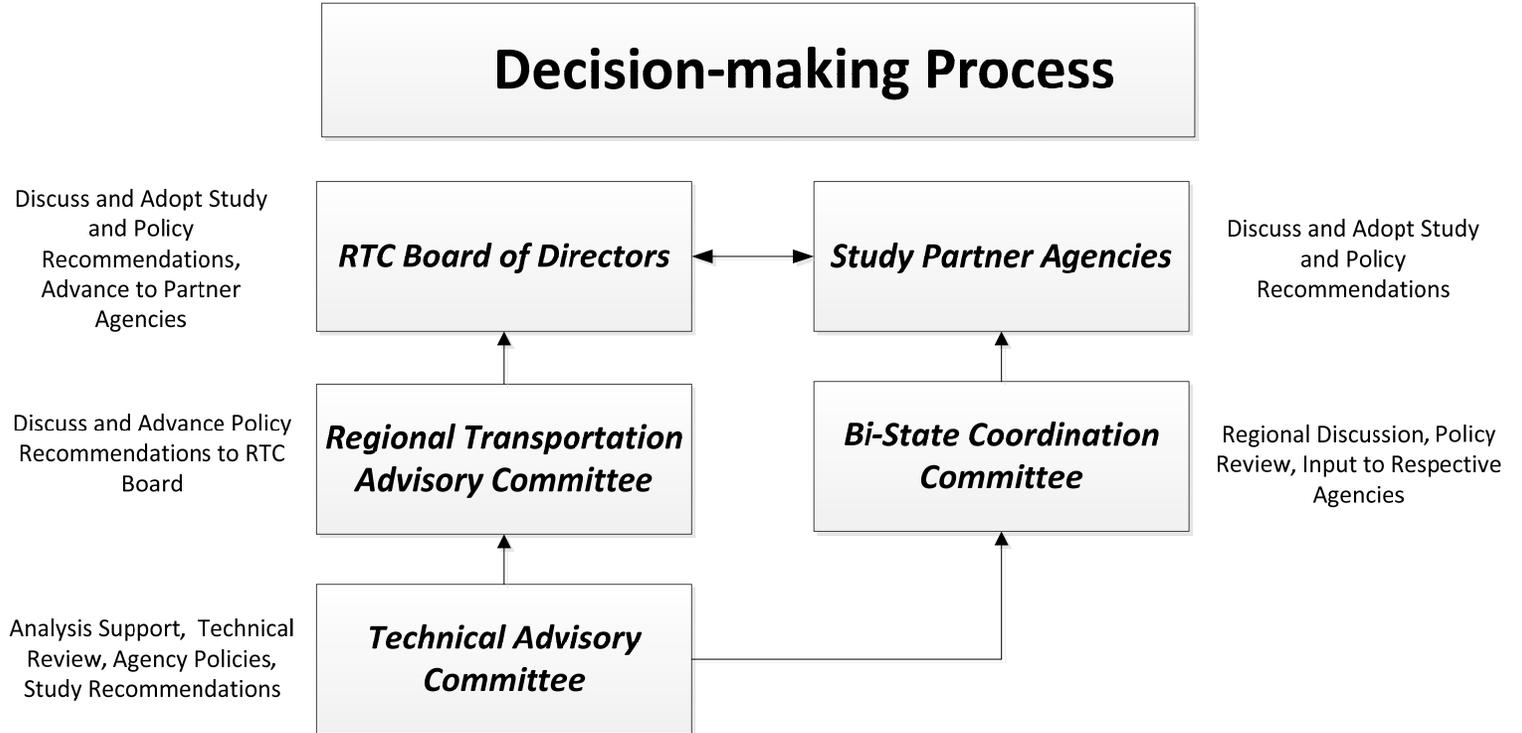
Attachments

Attachment 1

Study Tasks and Flow



Attachment 2



New-Law Transportation Balance Sheet
State \$ in Millions

DRAFT

| | 16 Year Amount |
|--|-------------------------------|
| Estimated State Revenues (through FY 2031) | |
| 1 Fuel Tax (11.9 cents - 7, 4.9) | 6,180 |
| 2 Gross Weight Fee on Trucks > 10,000 lbs (15%) | 159 |
| 3 Light Truck Weight Fee Increases | 691 |
| 4 Passenger Vehicle Weight Fee Increases | 1,958 |
| 5 Handling Loss Deduction Repeal | 56 |
| 6 2015 Proposed Fee Increases (2087 fee revenue into 5987) | 93 |
| 7 Vessel Replacement Account Unobligated: 2014 HB 1129 (enacted) | 350 |
| 8 License Plate Replacement: 2014's ESSB 5785 (enacted) | 205 |
| 9 Intermittent Use Trailer Revenue | 23 |
| 10 Sale of WSDOT Property Revenue | 80 |
| 11 2012 Fee Revenue: EHB 2660 and ESSB 6150 (enacted) | 1,135 |
| 12 Transfers: State Sales Tax (SSB 5990) + ST3 Tax Policy Change | 518 |
| 13 One-time Current Law Fund Balance Transfers | 40 |
| 14 Interest Income/Miscellaneous | 36 |
| | <u>Subtotal</u> 11,524 |
| | Bond Proceeds 4,762 |
| | <u>Total Resources</u> 16,286 |

| | 16 Year Amount |
|---|------------------------------|
| Estimated State Expenditures (through FY 2031) | |
| 1 Highway Preservation | 1,225 |
| 2 Maintenance | 100 |
| 3 Facilities | 52 |
| 4 Traffic Operations | 50 |
| 5 State and Local Improvement & Preservation Projects | 8,759 |
| 6 Fish Passage/Culverts | 300 |
| 7 Ferry Capital: Olympic Class Ferry Vessel & Terminal Construction/Preservation | 302 |
| 8 Ferry Operating Account Backfill | 300 |
| 9 Rail Slope Improvements | 33 |
| 10 PCC Rail Capital | 47 |
| 11 Freight Rail Projects (FRAP) | 31 |
| 12 Local Rail Projects | 63 |
| 13 State Patrol Account Backfill | 220 |
| 14 Freight Mobility Strategic Investment Board (FMSIB) | 123 |
| 15 Transportation Improvement Board (TIB) | 70 |
| 16 County Road Administration Board (CRAB) | 70 |
| 17 Cities and Counties Direct Distribution | 375 |
| 18 Special Needs Transit Grants | 200 |
| 19 Rural Mobility Grant Program | 110 |
| 20 Regional Mobility Grant Program | 200 |
| 21 Vanpool Grant Program | 31 |
| 22 Transit Coordination Grants | 5 |
| 23 Transit Project Grants | 111 |
| 24 Bike/Ped Grant Program | 75 |
| 25 Bike/Ped Projects | 89 |
| 26 Safe Routes to School Grant Program | 56 |
| 27 Complete Streets Grant Program | 106 |
| 28 Alt Fuel (1396) | 33 |
| 29 CTR (1822) | 41 |
| 30 EV (2087) | 22 |
| 31 Electric Vehicle Infrastructure Bank Capitalization | 1 |
| 32 Department of Licensing Implementation Costs | 22 |
| 33 Apprenticeship Grants | 5.25 |
| 34 Design Build Oversight Panel | 0.45 |
| 35 Marine/ORV/Snowmobile Fuel Tax Refunds | 106 |
| 36 Debt Service | 2,753 |
| 37 Contingency | 200 |
| | <u>Total Spending</u> 16,086 |

Proposed 2015 Statewide Transportation Project List

6/29/2015

| Projects Clark County | Total (1,000) |
|---------------------------------------|----------------------|
| I-5 Mill Plain Interchange | \$98,700 |
| SR-14/Camas Slough Bridge | \$25,000 |
| SR-502 Main Street Project/Widening | \$7,700 |
| I-5/179th St. Interchange | \$50,000 |
| SR-501/I-5 to Port of Vancouver | \$6,000 |
| Ridgefield Rail Overpass | \$7,768 |
| West Vancouver Freight Access | \$1,900 |
| 27th Street Extension & Rail Overpass | \$7,500 |
| Brady Road | \$6,000 |
| Street Imp. Near School for Blind | \$50 |
| <i>sub total</i> | \$210,618 |
| Transit Projects Clark County | |
| Vancouver Mall Transit Center | \$3,200 |
| <i>sub total</i> | \$3,200 |
| Projects Gorge Region | |
| SR-14/Bingen Overpass | \$22,900 |
| SR-14/Wind River Junction | \$5,150 |
| <i>sub total</i> | \$28,050 |
| Total | \$238,668 |

Compiled by RTC, July 2015. Based on Washington State Senate, 2015 LEAP Document NL-1, June 28, 2015