Columbia River Crossing Financial Plan Review

Prepared by the Debt Management Division
of the Oregon State Treasury

July 20, 2011

Elements of OST's Financial Plan Review

1. Update of Construction Cost Estimates
2. Evaluation of CRC's Traffic and Toll Revenue Forecast
3. Refinement of CRC's 2008 Plan of Finance
4. Exploration of Legal Issues regarding Governance and Ownership Framework

Participants in the OST Review Process

OST

Update to Construction Cost Estimates
- CRC staff and consultants

Legal Issues re Governance and Ownership
- Oregon DOJ
- Orrick Herrington & Sutcliffe (bond counsel)
- ODOT/WDOT
- CRC staff and consultants

Independent Review of CRC Traffic/Toll Revenue Forecast
- RB Consult, Ltd
- C&M Associates, Inc

Finance Plan Refinement
- DMD
- ODOT
- PRAG (financial advisory firm)
- Citi/Morgan Stanley (underwriters)

Update Scenarios for both State-backed and Stand-alone Toll Bonds

Refinement of Likely Approaches to State Equity Contribution

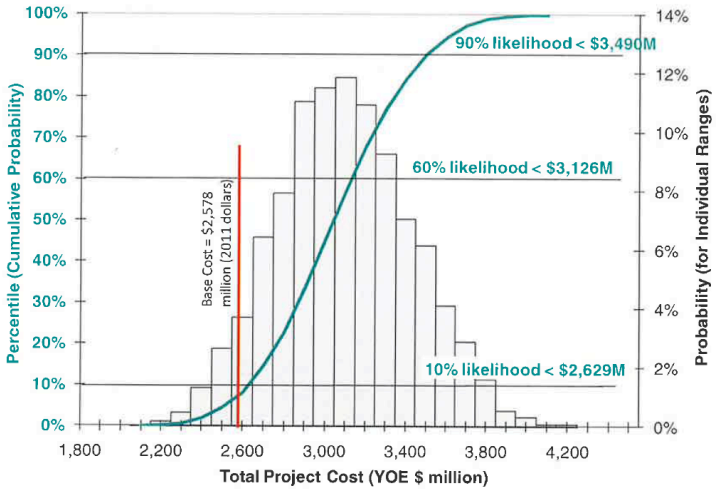
Interim Funding Plan for Anticipated Federal Funds

Update to Construction Cost Estimate

Phased Construction Scenario

- Cost Estimation Validation Process (CEVP) is an estimating technique employed by the CRC that uses a probabilistic approach to narrow the range of costs as key project milestones are met
- Assuming phased construction (does not include improvements to SR-500 or the Port of Portland flyover ramp), overall CRC project costs are now estimated to be between **$2.63 to $3.49 billion,** with a 60% probability that costs will be **$3.13 billion or less**

CEVP Results for Phase 1 FEIS:



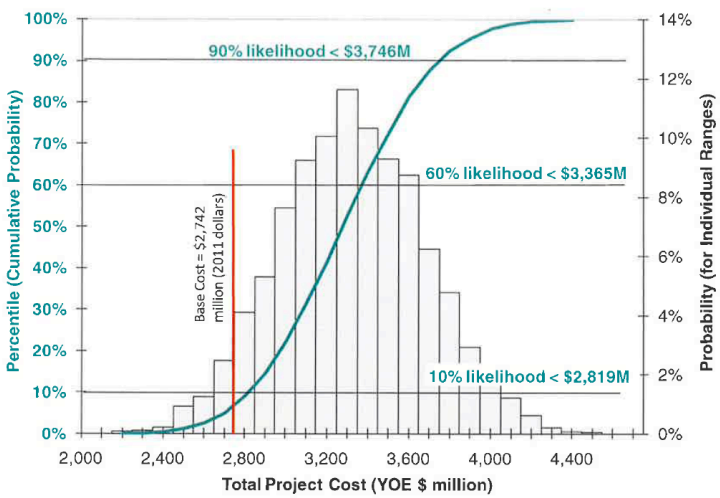
Uncertainty in Overall Project Cost for Baseline Funding, Phase 1 FEIS. Includes previous costs of $120.35 million

Update to Construction Cost Estimate

Full Build Scenario

- Under the full build scenario, which does include improvements to SR-500 and the Port of Portland flyover ramp, overall CRC project costs are estimated to be between **$2.82 to $3.75 billion,** with a 60% probability that costs will be **$3.37 billion or less**
- Final decision about size and scope of project will be determined upon further refinement of overall project costs and the future availability of various federal and state funds

CEVP Results for Full Build FEIS:



Uncertainty in Overall Project Cost for Baseline Funding, Full Build FEIS. Includes previous costs of $120.35 million

Initial CRC Financial Plan

based on the 2008 Adopted Draft Environmental Impact Statement (DEIS)

Sources of Funds	Estimated Amt ($M)	Construction Funds Spent
Federal Funds		
Discretionary Highway Funds	$ 400	FY 2012 - 15
New Starts Transit Grant	850	FY 2013 - 17
State Funds		
Equity Contribution (50% per state)	900	FY 2012 - 15
State-backed (G.O.) Toll Bonds (50% per state)	1,300	FY 2015 - 19
Total	**$ 3,450**	

Toll Bonding Considerations

- General Obligation (G.O.) bonds vs. stand-alone toll revenue bonds
  - Repayment of either type of bond comes from tolls paid by I-5 bridge users
  - State-backed G.O. bonds can be sold at higher credit ratings and therefore, significantly lower interest costs, than stand-alone toll revenue bonds
  - Each DOT (and ultimately, each state's General Fund) are obligated to cover toll revenue shortfalls over the life of these G.O. bonds
- An "investment grade" traffic and toll revenue forecast prior to the initial sale of toll bonds is essential
  - Bonds must be structured and sized prudently so that neither states' long-term credit ratings are impacted by the CRC project
- Establishing a strong coverage requirement can also help mitigate potential toll revenue shortfalls by providing a substantial revenue cushion
  - CRC financing model assumes 1.25 debt service coverage level for State-backed G.O. toll bonds
- The initial CRC finance plan phased toll bonds towards the latter parts of the construction project in order to minimize the use of capitalized interest (borrowing for interest payments on the bonds until the imposition of tolls on bridge users)

Background on CRC's Traffic and Toll Revenue Forecasting

- A 4-step traffic and toll revenue forecast was developed in 2005 by Stantec using the Portland Metro traffic model
  - Model modified upward using "VIS SIM" micro-simulation to adjust traffic flows by 6% based upon planned improvements to the I-5 corridor upon project completion
  - 2008 DEIS conservatively used Stantec's baseline forecast without this predicted improvement in traffic flows to calculate projected toll revenues
- Some economists are nevertheless critical of the current 4-step traffic forecast model's ability to accurately predict traffic growth and toll revenue over time
  - By its very nature, this type of model assumes a steady growth rate in annual population, employment, traffic, and GDP
  - Cumulative impacts of relatively small differences in assumptions about traffic growth can have a significant impact on forecast revenues over the 30-year forecast horizon
  - Changes in land use and employment patterns as well as periodic changes in economic conditions can have a profound impact on driving patterns and thus, toll revenue generation
  - Many toll roads around the world have not met their forecast revenues due to these unanticipated conditions

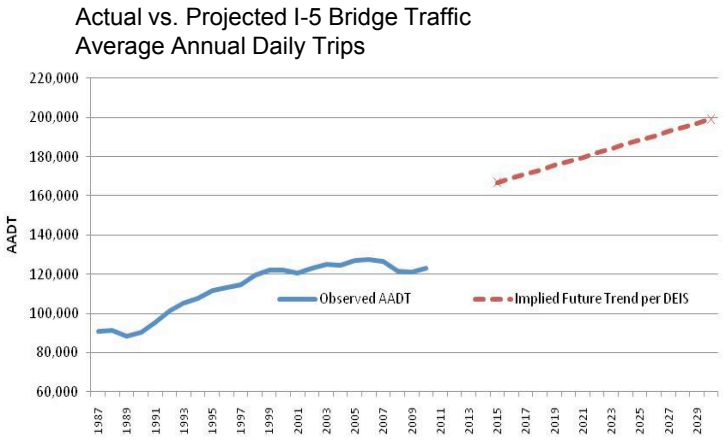
OST's Evaluation of CRC's Traffic and Toll Revenue Forecasting to Date

- OST hired two respected independent consulting firms to conduct desktop reviews of the CRC forecasts from both the credit analysis and traffic engineering perspectives
  - Robert Bain, RB Consult Ltd (former S&P ratings analyst who has published widely on problems with the traffic and toll forecasting process)
  - Herb Vargas and Carlos Contreras, C&M Associates, Inc. (traffic engineering firm with international experience in investment grade studies)
- Each firm independently reviewed CRC's traffic modeling approach as well as key socioeconomic and land use factors which drive the forecast of long-term trends in traffic growth in the Columbia River corridor
- While both firms agreed that CRC's modeling thus far has been adequate for EIS purposes, they also noted that a far more robust modeling approach (i.e., the investment grade traffic and toll revenue study) will be required prior to the initial toll bond financing planned for FY 2015

Summary of the Consultants' Findings

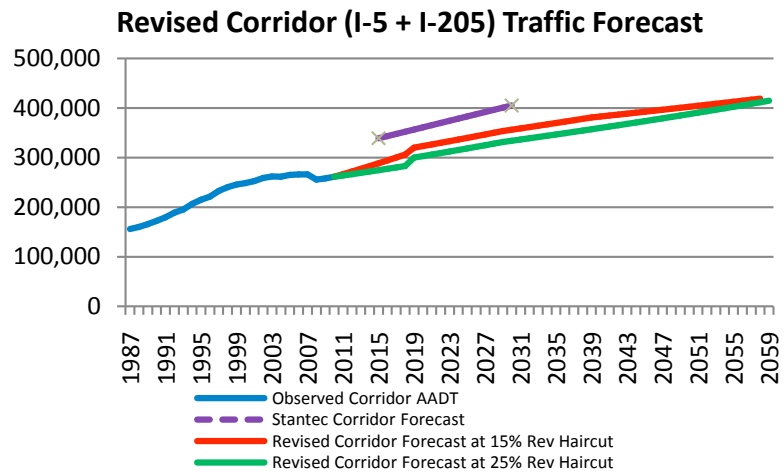
- Portland Metro's 2002 long-term employment projections, which were relied upon for the 2008 DEIS, are very outdated
- Traffic counts on the I-5 and I-205 bridges have not grown at the rates predicted in the 2008 DEIS
- Both firms recommend that the CRC lower its baseline traffic and toll revenue forecasts in recognition of the unanticipated depth of the recent recession and the resulting impact on Portland Metro's long-term employment and traffic growth trends
- For planning purposes, it was suggested that the CRC assume that projected annual gross toll revenues will be somewhere between **15% to 25% lower** than the baseline forecast assumed at the time the 2008 DEIS was adopted

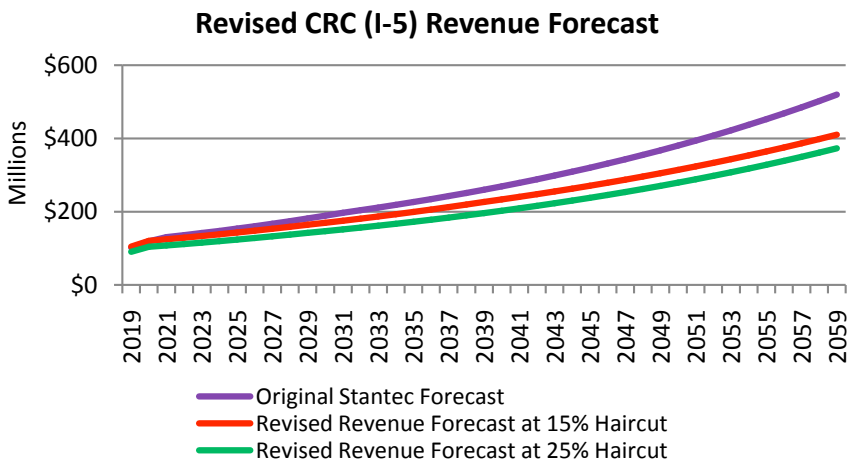
Socioeconomic Data	Source		
	Metro	Moody's	Global Insight
Households			
2005	767,000	805,000	815,300
2030	1,134,100	1,240,000	1,180,500
Growth	48%	54%	45%
Population			
2005	1,906,600	2,074,400	2,072,300
2030	2,853,900	3,142,700	2,977,800
Growth	50%	51%	44%
Employment			
2005	1,032,200	987,200	987,200
2030	1,691,900	1,262,100	1,292,200
Growth	64%	28%	31%



Next Steps in Refining the CRC Traffic and Toll Forecast Model

- The key difference between OST's two consultants was their assumption regarding the likely shift in traffic to the I-205 bridge upon tolling of the new I-5 bridge
- The original Stantec forecast assumed the new I-5 bridge would still "capture" 45% - 47% of traffic in the overall corridor
  - For each 1% reduction in the I-5 bridge "capture" rate, our consultants' estimate that gross toll revenues drop by approximately 2%
- An investment grade study that incorporates the latest forecast of long-term employment trends and examines the impact of tolling on bridge users of different income levels will allow the CRC to narrow and refine projected I-5 toll revenues prior to the initial sale of bonds in FY 2015





Impact of Lowering the I-5 Bridge Toll Revenue Forecast on the CRC Finance Plan

- All else being equal, a 15% reduction in gross toll revenues reduces the amount of proceeds that can be generated for the project through sale of state-backed G.O. toll bonds by 18.5%, or approximately **$240 million** compared to the CRC's original finance plan
- The percentage differential between the reduction in revenues vs. project proceeds is due to certain annual and periodic fixed costs associated with operation and maintenance of the I-5 toll bridge that will need to be funded regardless of overall traffic levels
- At a 25% toll revenue reduction, estimated project proceeds are reduced by 31% or approximately **$407 million**

Other Bond Structuring Considerations Impacting CRC Project Financing

- The original CRC finance plan envisioned that State-backed GO bonds would be "back-loaded" (i.e. structured with ascending annual debt service linked to ascending toll revenues over time), with the following assumptions:
  - I-5 bridge traffic would grow annually by 1.3%
  - Toll rates would increase annually by 2.5%
- Based on Washington's experience with toll revenue shortfalls on the Tacoma Narrows project, Washington State Treasurer McIntire is now requiring WDOT to use more conservative revenue growth assumptions on all new state bond tolling projects
- Eliminating the toll escalation assumption from the CRC financing model reduces the risk of toll revenue shortfalls, but also reduces the amount of toll bond proceeds that can be generated by approximately **$318 million**
- When combined with the impacts of the aforementioned 15% - 25% potential reduction in projected toll revenues, CRC toll bond proceeds are estimated to be **$468 to $598 million lower** than predicted in the 2008 DEIS

Potential Solutions to the CRC Funding Gap

Pre-Completion Tolling

- CRC has estimated that pre-completion tolling of the I-5 bridge could generate up to **$200 million** in additional revenue for the project

TIFIA Loan

- The Transportation Infrastructure Finance and Innovation Act (TIFIA) established a Federal program that provides direct loans to surface transportation projects of national and regional significance
- TIFIA loans provide competitive interest rates and flexible repayment terms (no interest payments are required during construction, up 35 years for repayment upon project completion, and debt service coverage of 1.1x revenues on a subordinate basis to the states' G.O. bonds)
- A TIFIA loan of $704 to $833 million, repaid from I-5 toll revenues, would substantially reduce the need for state-backed G.O. bonds and limit the exposure of each state's General Fund to the project, while restoring project funding by **$194 to $238 million**
- Given the increasingly competitive nature of the TIFIA loan approval process, the CRC team – if it opts to pursue this option -- should initiate efforts to secure US DOT and Congressional approval for this loan at the same time it seeks other Federal funding commitments for the project

Potential Modifications to CRC's Plan of Finance

Sources of Funds	Original CRC Plan ($M)	Combined Impact of Debt Structuring Limitations and Toll Revenue Reductions on CRC Original Plan ($M)		Potential Modifications to CRC Plan ($M)
		At a 25% Revenue Reduction	At a15% Revenue Reduction	
Federal Funds				
Discretionary Highway Funds	$ 400	$ 400	$ 400	$ 400
New Starts Transit Grant	850	850	850	850
State Funds				
Equity Contribution (50% per state)	900	900	900	900
State-backed (G.O.) Toll Bonds (50% per state)	1,300	702	832	190 - 230
TIFIA Loan (secured by tolls & back-up pledge of ODOT/WDOT revenues)	-	-	-	704 - 833
Pre-Completion Tolling (estimated)	-	-	-	200
Total	**$ 3,450**	**$ 2,852**	**$ 2,982**	**$ 3,244 - 3,413**

Other CRC Financing Issues

- Securing Federal transit funding is now on the critical path
  - $850M in New Starts grant is key to moving ahead with the overall project as currently conceived
  - Vote on tax to generate $3M in annual transit operating funds by Clark County residents is critical to getting the New Starts money
- Failure to win Federal funding for the transit portion of the project may require rethinking of the overall project scope, timeline and financing plan
- Assuming the CRC is successful in securing a commitment of all anticipated Federal funding, the two states will nevertheless need to provide interim financing to pay significant portions of the CRC's construction costs prior to receiving $1.25 billion of transit and discretionary highway money

Other CRC Financing Issues (continued)

- The current CRC plan envisions equity contributions of $450 million by each state in FY 2013 to fund initial phases of design and construction
- ODOT's preferred option appears to be issuing state-backed G.O. bonds to cover its equity contribution
  - Under the Oregon Constitution, ODOT is allowed to issue G.O. bonds to fund "permanent roads" within the state
  - Both the G.O. bond sale and source of debt repayment will require legislative approval
  - A 1.5 cent per gallon dedicated increase in state gas tax (or equivalent weight-mile fees) generates $40.6 million per year and is estimated to support up to **$522 million** in self-supporting 25-year G.O. bonds at a 1.10x coverage level
- Alternatively, ODOT could issue 12-year "GARVEE" Bonds which are a type of grant anticipation note that gets repaid from future federal discretionary highway revenues
  - GARVEEs are frequently issued by states and local governments for large transportation projects and will likely be the source of interim funding used for other Federally-funded aspects of the project
  - Each $10 million in annual Federal Funds pledged would generate roughly $94 – 99 million in equity towards the project

Governance and Ownership Framework

- ODOT/WDOT continue to meet to develop the IGA for governance and ownership of the project
  - Oregon's Department of Justice and ODOT's bond counsel, Orrick, Herrington and Sutcliffe, are now included in the CRC governance planning process
- CRC's current plan envisions that toll collection, bridge ownership and on-going maintenance will be done by the State of Washington but that Oregon will share in a 50/50 split of all CRC project costs, including cost overruns and revenue shortfalls
  - Oregon Constitution prohibits use of state gas tax for projects outside state borders
  - Preliminary cost allocation between project elements suggests this will not be a problem
- Regardless of whether the CRC project is funded in part through state-backed G.O. toll bonds or a Federal TIFIA loan, the CRC's governance plan must include a robust toll-setting mechanism to assure that all toll-related debt service is paid in full each year through toll revenues

Conclusions

- CRC's construction cost estimating process appears solid, with contingency plans being developed for project phasing depending upon the finalized estimate of project costs and the availability of various state and federal funds
- Key assumptions in the traffic and toll revenue forecast used in the 2008 DEIS are now outdated, given the unanticipated depth of the recent recession
  - Completion of an investment grade study over the next two years will allow the CRC to refine its estimate of anticipated I-5 bridge toll revenues over time, which in turn will allow us to refine the amount of toll bond proceeds that can be generated for the project
- The combined impact of Washington State Treasurer McIntire's requirement that CRC adopt a more conservative toll bond debt structure and the potential toll revenue reduction of 15% – 25% is a $468 to $598 million reduction in projected CRC funding resources

Conclusions (continued)

- Pre-completion tolling of the I-5 bridge and the shift from state-backed GO toll bonds to a primarily TIFIA loan funding approach may be able to restore between $394 to $438 million in CRC funding, while greatly reducing the financial risk to both states' General Funds and credit ratings
- Securing Federal funding for the project remains on the critical path, with an important vote on taxes to fund annual transit operating costs coming up this fall in Clark County
- Both state-generated and federal transportation funds can be leveraged to provide Oregon's $450 million equity contribution to the CRC project
- The CRC's governance plan must include a robust toll-setting mechanism to assure that all toll-related debt service is paid in full each year through toll revenues