600 NE Grand Ave.
Portland, OR 97232-2736

Metro | *Agenda*

Meeting: Metro Council Work Session
Date: Tuesday, May 31, 2011
Time: 2 p.m.
Place: Council Chambers

CALL TO ORDER AND ROLL CALL

2 PM	**1.**	**ADMINISTRATIVE/ CHIEF OPERATING OFFICER COMMUNICATIONS**	
2:15 PM	**2.**	**COLUMBIA RIVER CROSSING DISCUSSION ON RESOLUTION NO. 11-4264 – <u>INFORMATION/DISCUSSION</u>**	**Cotugno** **CRC Staff** **Henry Hewitt, Project Sponsors** **Council Chair**
4:15 PM	**3.**	**COUNCIL BRIEFINGS/COMMUNICATION**	

ADJOURN

Agenda Item Number 2.0

COLUMBIA RIVER CROSSING
DISCUSSION ON
RESOLUTION NO. 11-4264

Metro Council Work Session
Tuesday, May 31, 2011
Metro Council Chamber

METRO COUNCIL

Work Session Worksheet

Presentation Date: May 31, 2011 **Time:** 2:15 pm **Length:** 2 hours

Presentation Title: Review of Resolution No. 11-4264 FOR THE PURPOSE OF CONCLUDING THAT THE CONCERNS AND CONSIDERATIONS RAISED ABOUT THE COLUMBIA RIVER CROSSING PROJECT IN EXHIBIT A TO RESOLUTION NO. 08-3960B HAVE BEEN ADDRESSD SATISFACTORILY in preparation for a public hearing and consideration of approval on June 9, 2011.

Service, Office, or Center:
Office of the Chief Operating Officer

Presenters:
Andy Cotugno (xt. 1763), Henry Hewitt, Project Sponsors Council Chair, Columbia River Crossing staff

ISSUE & BACKGROUND

By Resolution No. 08-3960B the Metro Council approved the Locally Preferred Alternative (LPA) for the Columbia River Crossing Project. However, the resolution also raised a number of concerns and considerations that needed to be addressed prior to the Council's consideration of adoption of the Land Use Final Order for the project. Some of the concerns and considerations were such that they could impact aspects of the final design for the project (such as the number of lanes or the Hayden Island interchange design) while others identified the need for further information prior to consideration of final approval (such as related to traffic diversion effects of tolls or the impact on greenhouse gases). Exhibit A to the Resolution provides the full list of concerns and considerations. Exhibit B provides documentation about how they have been addressed, including a brief synopsis and links to more detailed documentation. The staff report provides background about the process carried out to address the conditions.

Adoption of this resolution would complete the LPA approval allowing the project to seek approval of the Land Use Final Order, publish the Final Environmental Impact statement describing the scope of the proposed project and how impacts will be mitigated and enabling the Federal Highway Administration and Federal Transit Administration to issue their Record of Decision approving the project. Once these steps are completed, the project can seek funding, initiate final design, solicit contractors and proceed to construction.

OPTIONS AVAILABLE

The Council could:

- adopt Resolution No. 11-4264 indicating satisfaction with how the concerns and considerations are addressed; or
- adopt Resolution No. 11-4264 but identify the need for further information prior to the action to approve the Land Use Final Order; or
- defer action pending the need to address any issue that has not been satisfactorily addressed.

IMPLICATIONS AND SUGGESTIONS

Adoption of Resolution No. 11-4264 is recommended. The CRC project has been quite responsive in their approach to addressing these issues. They have taken on additional studies of these conditions (and others adopted by other jurisdictions) in a collaborative manner and Metro staff and the Metro Council's delegate to the Project Sponsors Council have made significant contributions to resolving the issues. They have also sought independent advice from outside experts through two independent review panels. While there remain issues to be addressed (such as the exact tolling rates), there will be ample opportunity for involvement by Metro in the future. Further delaying the project increases costs and delays implementing the finance plan through state and federal action.

QUESTION(S) PRESENTED FOR CONSIDERATION

- Have the concerns and considerations been adequately addressed?
- Is there additional information required?
-

LEGISLATION WOULD BE REQUIRED FOR COUNCIL ACTION _X_ Yes __No
DRAFT IS ATTACHED _X_ Yes ___No

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF CONCLUDING THAT THE CONCERNS AND CONSIDERATIONS RAISED ABOUT THE COLUMBIA RIVER CROSSING PROJECT IN EXHIBIT A TO RESOLUTION NO. 08-3960B HAVE BEEN ADDRESSED SATISFACTORILY	))))))	RESOLUTION NO. 11-4264 Introduced by Councilor Rex Burkholder

WHEREAS, the Joint Policy Advisory Committee on Transportation (JPACT) recommended and the Metro Council endorsed the Locally Preferred Alternative (LPA) for the Columbia River Crossing Project by Resolution No. 08-3960B (For the Purposes of Endorsing the Locally Preferred Alternative for the Columbia River Crossing Project and Amending the Metro 2035 Regional Transportation Plan with Conditions); and

WHEREAS, Resolution No. 08-3960B supported a Columbia River Crossing Project that includes a replacement bridge with three northbound and three southbound through lanes plus auxiliary lanes for merging and weaving using tolls for both finance and for demand management and selecting light rail transit to Vancouver as the preferred transit mode; and

WHEREAS, among the conditions of Council endorsement of the LPA was a list of concerns and considerations, contained in Exhibit A to Resolution No. 08-3960B as reflected in Exhibit A to this resolution, to be addressed before the Council would approve a land use final order (LUFO) for the project; and

WHEREAS, Resolution No. 08-3960B indicated that the Metro Council will invite public review and discussion on the issues raised in Exhibit A; and

WHEREAS, the Columbia River Crossing Project Team in cooperation with the Integrated Project Staff and Project Sponsors Council responded to the concerns and considerations adopted by the Metro Council as well as by the governing bodies of the other partner jurisdictions and agencies; and

WHEREAS, the Governors of Oregon and Washington commissioned an Independent Review Panel and a Bridge Review Panel to provide independent expert evaluation and recommendation; and

WHEREAS, the Project Team presented its assessment to JPACT on June 9, 2011, and JPACT voted to recommend that the Metro Council accept the responses as satisfactory; now, therefore,

BE IT RESOLVED THAT the Metro Council:

1. Accepts the responses to the concerns and considerations set forth in Exhibit A to Resolution No. 08-3960B and attached to this resolution as Exhibit A, also, as satisfactory, based upon the assessment contained in the documentation attached to this Resolution as Exhibit B.

2. Directs the Chief Operating Officer to send a copy of this resolution to the Columbia River Crossing Project.

ADOPTED by the Metro Council this 9th day of June, 2011

Tom Hughes, Council President

Approved as to form:

Alison Kean Campbell, Acting Metro Attorney

RESOLUTION O8-3960B
Exhibit A

Metro Council Concerns and Considerations
Columbia River Crossing "Locally Preferred Alternative"

The Metro Council recognizes that endorsement of a "Locally Preferred Alternative" is one important narrowing step that enables the project management team to proceed with further analysis of a reduced range of alternatives. The Council is cognizant that many important issues are generally still unresolved at the time of endorsement of an LPA, but that clear articulation of concerns is required to make sure that such unresolved issues are appropriately resolved during the next phase of design, engineering, and financial planning, with proper participation by the local community and its elected representatives. If those sorts of outstanding issues are not satisfactorily resolved during that post-LPA selection phase, then the project risks failing to win the approval of necessary governing bodies at subsequent steps of the process.

While the Metro Council endorses the LPA, Replacement Bridge with Light Rail and Tolls, as described in Resolution 08-3960A, the Metro Council simultaneously finds that the following issues will need to be satisfactorily addressed in the upcoming refinement of design, engineering and financial planning:

FORMATION OF A LOCAL OVERSIGHT COMMITTEE TO SUCCEED THE TASK FORCE

The Metro Council concluded on June 5, 2008 through Resolution 08-3938B that further oversight of the project is needed once the Task Force's work is concluded. The Council suggested that the Governors of Oregon and Washington convene such a local oversight group. On June 19, 2008, the Governors issued a joint letter that concluded there is a need to reconvene the CRC Project Sponsor's Council as the oversight committee to succeed the Task Force, including representatives from Washington State Department of Transportation, the Oregon Department of Transportation, cities of Portland and Vancouver, Metro, the Southwest Washington RTC, TriMet and CTRAN. The Governors charged the committee with advising the two departments of transportation and two transit agencies on a consensus basis to the greatest extent possible regarding the major issues requiring further oversight and resolution.

PROJECT ISSUES REQUIRING LOCAL OVERSIGHT DURING PLANNING, DESIGN, ENGINEERING, FINANCE AND CONSTRUCTION

The Governors have charged the Project Sponsors Council with project oversight on the following issues, milestones and decision points:

1) Completion of the Environmental Impact Statement (EIS),
2) Project design, including, but not limited to: examining ways to provide an efficient solution that meets safety, transportation and environmental goals,
3) Timelines associated with project development,
4) Development and use of sustainable construction methods,
5) Ensuring the project is consistent with Oregon and Washington's statutory reduction goals for green house gas emissions, and
6) A finance plan that balances revenue generation and demand management, including the project capital and operating costs, the sources of revenue, impact to the funds required for other potential expenditures in the region.

The Metro Council has identified additional areas of concern that need to be addressed by the Project Sponsors Council as the project moves forward:

A. TOLLING
Implementation of tolls on the existing I-5 Bridge should be undertaken as soon as legally and practically permissible. Consideration should be given to potential diversion of traffic to I-205 and potential tolling I-5 and I-205 with those revenues potentially used for projects on these two facilities in the Portland-Vancouver metropolitan area.

B. NUMBER OF AUXILIARY LANES
Determine the number of auxiliary lanes in addition to the three through lanes in each direction on the replacement bridge across the Columbia River and throughout the bridge influence area.

C. IMPACT MITIGATION AND COMMUNITY ENHANCEMENT
Identify proposed mitigation for any potential adverse human health impacts related to the project and existing human health impacts in the project area, including community enhancement projects that address environmental justice.

D. DEMAND MANAGEMENT
Develop of state-of-the-art demand management techniques in addition to tolls that would influence travel behavior and reduce greenhouse gas emissions.

E. FINANCING PLAN
A detailed financing plan showing costs and sources of revenue must be proposed and presented to the partner agencies and to the public. The proposed financing plan should indicate how the federal, state and local (if any) sources of revenue proposed to be dedicated to this project would impact, or could be compared to, the funds required for other potential expenditures in the region.

F. CAPACITY CONSIDERATIONS, INDUCED DEMAND AND GREENHOUSE GASES
Further analysis is required of the greenhouse gas and induced automobile demand forecasts for this project. The results of the analysis must be prominently displayed in the Final Environmental Impact Statement. The analysis should include comparisons related to the purpose and function of the so-called "'auxiliary" lanes. A reduction in vehicle miles traveled should be pursued to support stated greenhouse gas reduction targets as expressed by legislation in Oregon and Washington and by the Governors.

G. PRESERVATION OF FREIGHT ACCESS
The design and finance phase of the CRC project will need to describe specifically what physical and fiscal (tolling) methods will be employed to ensure that trucks are granted a priority which is commensurate with their contributions to the project and their important role in the economy relative to single-occupancy automobile commuting. Ensure that freight capacity at interchanges is not diminished by industrial land use conversion.

H. LIGHT RAIL
As indicated in the Item 2 "resolved" in the body of the resolution, the Metro Council's endorsement of the LPA categorically stipulates that light rail must be included in any phasing package that may move forward for construction.

I. DESIGN OF BICYCLE AND PEDESTRIAN FACILITIES

More detailed design of bicycle and pedestrian facilities is required to inform the decisions of the local oversight panel described above. The project should design "world class" bicycle and pedestrian facilities on the replacement bridge, bridge approaches and throughout the bridge influence area that meet or exceed standards and are adequate to meet the demand generated by tolls or other demand management techniques.

J. URBAN DEVELOPMENT IMPACTS AT RE-DESIGNED INTERCHANGES

More design of the interchanges related to the CRC is required to fully evaluate their community impact. The design of interchanges within the bridge influence area must take into account their impact on urban development potential. The Metro Council is also concerned that the Marine Drive access points preserve and improve the functionality of the Expo Center.

K. BRIDGE DESIGN

The bridge type and aesthetics of the final design should be an important consideration in the phase of study that follows approval of the LPA and precedes consideration of the final decision.

Metro Conditions from Exhibit A to Resolution No. 08-3960B

Overall Status Classification:

- Issue is settled or on track to be settled with the conclusion of the FEIS and ROD
- Issue is settled or on track to be settled with the conclusion of the FEIS and ROD but further refinement and decision-making after the FEIS/ROD will be required
- Conflict or inconsistency between jurisdictions; or issue is unresolved; or issue needs additional work

OVERALL STATUS CATEGORY	NUMBER	ISSUE	EXPLANATION OF STATUS
	A	Tolling – Implement tolling on I-5 as soon as legally and practically permissible; consider diversion to I-205 and tolling of that facility with revenues used for projects in the region.	The project has undertaken various analyses of tolls and the impact of tolling, though additional studies and analysis will need to be undertaken as the project advances. At the direction of the governors of Oregon and Washington, the project is working with the treasurers and legislators of both states to review and refine the financing plan and toll assumptions to minimize financial risk and provide accountability and oversight as the project moves toward construction. At this point, tolling of I-5 is an essential element of the project, both to manage congestion and as part of the funding package for the CRC project along with federal and state funding. Tolling of interstate facilities must be consistent with the provisions of Title 23 U.S.C. Section 129, the federal law that specifies the circumstances under which interstate facilities may be tolled. The CRC project qualifies, though tolling of I-205 does not because federal regulations allow tolling of existing facilities only if a project involves reconstruction or replacement of that facility. Reconstruction or replacement of I-205 is not being proposed as part of the CRC project nor is tolling being proposed for I-205 in connection with the CRC project. At this time, tolling is not being considered to fund other projects in the region. Further information on federal requirements can be found at: http://www.ops.fhwa.dot.gov/tolling_pricing/toll_agreements.htm Tolling of I-5 during construction of a new facility is permissible under federal statutes, but no recommendations or decisions about tolling during construction have been made. Tolling during construction could serve as a demand reduction measure to reduce traffic during the construction phase. An aggressive construction phase Transportation Demand Management (TDM) program has been developed and tolling during construction is still a possibility. Specific decisions on tolling, including the possibility of advance tolling as well as toll rates and toll structure, will be made by the appropriate bodies after consultation with the project's local partners and a public outreach and education process. Under current statutory authority, the Washington Transportation Commission and the Oregon Transportation Commission have tolling authority in their respective states. In Washington, the legislature reserves the authority to impose tolls on any state route or facility. The issues of tolling and tolling authority may also be explored in the forthcoming discussions on governance related to the project. Analyses conducted for the CRC project included using the regional traffic forecasting model to assess the impact of various tolls on total traffic and diversion to I-205. The Tolling Study Report, released in January 2010, included analyses of a no-build scenario, a no-toll build scenario, and

			ten other scenarios with varying toll structures and some with tolling of the I-205 and I-5 bridges. Key findings from the analysis undertaken for the CRC project included: • The regional travel forecasting models project that under the base tolling scenario, the CRC project will reduce auto travel on I-5 across the Columbia River, as compared to the No Build. The CRC project will also reduce overall person trips on I-5, as compared to the No Build due to the effect tolls have on shifting some cross river trip origins and destinations. • When looking at the tolled vs. no toll scenarios, tolling and transit improvements reduce auto travel across the river on I-5 by approximately 40,000 trips per day for the base tolling scenario (the numbers of trips vary by tolling scenario). • At the Columbia River, there is an approximate 4.5% shift of auto trips on an all day basis from I-5 to I-205 as compared to the Build No-Toll scenario. More diversion to I-205 is predicted in the off-peak hours when capacity is available than during peak hours. On I-205 south of I-84, the models estimate that diversion will be approximately 1% on an all day basis as compared to the no build. The Tolling Study Report had three principal conclusions about diversion: • For most of the I-5 only toll scenarios, the majority of drivers would not change their travel patterns. Some would choose a new destination or a non-tolled route. Additional diversion to transit is minimal due to the already significantly increased ridership associated with project improvements. • Higher tolls on I-5 would cause more route diversion; however, the percentage of diversion tends to be lower during peak periods when travelers' willingness to pay tolls may be higher and/or alternative routes are congested, and thus, time-consuming and diversion during off-peak periods occurs when available capacity can accommodate the diversion. • For scenarios that toll both the I-5 and I-205 bridges, traffic levels would be higher on I-5 and lower on I-205 compared to tolling only the I-5 bridge. However, compared to the No Toll "No Build" project scenario, total cross-river traffic demand would be less on both the I-5 and I-205 bridges as many trips would divert to transit or not be made across the Columbia River. The No Toll "No Build" scenario would result in the most significant congestion in the I-205 corridor due to diversion from the I-5 corridor due to the severe congestion bottleneck in that corridor. Additional information about the impact of tolling and diversion to I-205 can be found in The Tolling Study report at: http://www.columbiarivercrossing.org/FileLibrary/Tolling/CRC_TollingStudyCommitteeReport.pdf
	B	Number of Auxiliary Lanes – Determine the number of auxiliary lanes across the Columbia River.	During summer 2010, additional study was undertaken through the Integrated Project Staff (IPS) and the Project Sponsors Council (PSC). Developing performance measures and a more robust Transportation Demand Management Plan were among the actions considered to reduce the need for auxiliary lanes. The IPS recommendation forwarded to the PSC on August 5, 2010 was for a configuration with three through lanes and two auxiliary lanes in each direction and with standard 12-foot shoulders. The new recommendation results in narrower bridges as a result of reducing the project from 12 to 10 lanes. PSC concurred and forwarded its recommendation to the Governors on August 13, 2010. The decision on the number of lanes will be confirmed and finalized with the publication of the Final EIS and the issuance of the Record of Decision. Both are expected in 2011.

	C	Impact Mitigation and Community Enhancement – Mitigate for adverse human health impact of the project or existing health impacts in the project area; implement community enhancement projects that address environmental justice.	The project is committed to providing users and the surrounding neighborhoods with a safe and reliable transportation facility. The project is working with and within the surrounding communities to help build upon and support their community goals. The CRC project has been working with and will continue to work with the community to blend the transportation system enhancements and improvements into the fabric of the community. The project's goals include designing and constructing the project with as little disruption to the community as possible and developing the project such that it enhances the transportation and livability of the community and preserves the environmental, scenic, aesthetic, historic, natural and social resources of the area. The philosophy of the project is to leave the area better off and to provide enhancements within the community as part of the overall project design rather than providing a funding source for enhancement elements separate and disjointed from the rest of the project. Many enhancements are included in the project, such as improved local street connections in downtown Vancouver and Hayden Island, the provision of light rail transit in the corridor, replacement of substandard facilities for bicyclists and pedestrians with new "world class" facilities, local auto access from North Portland to Hayden Island on a separate arterial bridge and a safer highway network for all users. Human health issues are embedded in the National Environmental Policy Act's intent and in its implementation. The analyses conducted for the Columbia River Crossing DEIS, and further updates for the FEIS, address all potentially significant human health impacts that could reasonably result from the proposed action. The project, with planned mitigation, would not have adverse health impacts. Key findings leading to the conclusion that the project would not have adverse health impacts include analyses related to air quality, noise and vibration, climate change and greenhouse gases, and water quality. These four areas are highlighted below: • All criteria air pollutants and mobile source air toxins will be lower, in some cases significantly lower, in 2030 than they are today. Some pollutants will be slightly higher in some areas with the project than with the no-build, but emissions will be substantially below today's levels and will be well within relevant standards established to promote public health and welfare. Long-term mitigation for air quality impacts is not proposed. The FEIS will describe measures to reduce impacts from construction emissions. • Noise impacts from highway traffic will be lower with the project than without due to proposed mitigation, primarily sound walls. All light rail noise can be mitigated. • The project will reduce greenhouse gas (GHG) emissions compared to the no-build. The project will implement recommendations from the Governor's Climate Change Integration Group regarding how transportation in Oregon can reduce GHG emissions. • Currently, all runoff from the river crossing and most runoff from I-5 in the project area discharges untreated into the Columbia River and other surface waters. The project will provide water quality treatment for 115 percent of the new impervious surface, including the entire river crossing and most of I-5 in the project area that is currently untreated. These changes are beneficial to the health of aquatic species and people. The Draft EIS included and the Final EIS will include more detailed information, including analysis, applicable standards, conclusions, and mitigation

			where appropriate on the following topics related to human health: · Air Quality · Noise and Vibration · Land Use and Economics · Neighborhoods · Pedestrians and bicycles · Traffic and Transit · Visual and Aesthetics · Parks and recreation · Public services · Environmental justice · Hazardous materials · Water Quality The major steps to the impact analysis that followed or occurred simultaneously with data collection were: neighborhood resource mapping, the completion of displacement surveys, review of potential impacts and benefits from other disciplines (such as air quality), evaluation of potential impacts to low-income housing developments, and a robust outreach and communication program. In response to questions raised by various parties commenting on the DEIS, including the Multnomah County Health Department, the project team did undertake additional analyses including assessing greenhouse gases, additional air quality and noise studies. The Final EIS will include substantially more documentation than the DEIS related to health impacts. The CRC website will provide access to the FEIS and technical reports upon their publication.

	D	Demand Management – Develop state-of-the-art demand management techniques in addition to tolls to influence travel behavior and reduce greenhouse gas emissions.	The TDM Working Group developed both a Construction Phase and a Post-Construction Phase TDM program. The recommended Construction Phase program is a bi-state, multi-pronged approach that seeks to maximize use of alternative modes of travel through targeted marketing and additional services. The IPS has also endorsed a Post-Construction TDM Program with the goal of shifting as much as an additional 11 percent of peak person trips to non-SOV modes above the level assumed in the travel forecasts generated for the project, resulting in a non-SOV mode share that could exceed 50 percent. The Construction Phase TDM Plan was endorsed by the PSC. Additional follow-on work has been recommended to move toward implementation. To facilitate the active management of the corridor, the PSC adopted the concept of a Mobility Council on March 6, 2009. The Mobility Council would regularly assess all aspects of the corridor and the direct and indirect impacts. The PSC vision of the Mobility Council would include active management in four areas: the toll rate structure, the use of through and auxiliary lanes; transit policies; and transportation demand management strategies. During 2009 and 2010, the PSC oversaw the development and endorsed the TDM plans. TDM Plans were presented to and endorsed by the PSC on January 22, 2010 and on August 9, 2010. The PSC also established a Performance Measures Advisory Group to help establish performance measures, targets and strategies to help inform the design of the CRC project and to manage the system after construction. Key performance measures focused on the following goal areas: 1) System Access, Mobility and Reliability, 2) Financial Responsibility and Asset Management, 3) Climate, Energy Security and Health, 4)Safety and Security, 5) Economic Vitality, and 6) Land Use. The Performance Measures Advisory Group recommendations were presented to and endorsed by the PSC on January 22, 2010 and August 9, 2010. The Governance Committee of the IPS is developing recommendations for consideration by the PSC on governance structures to implement the Mobility Council and establish its charge and authority.
	E	Financing Plan – Develop a financing plan for presentation to the project partners and the public that indicates federal, state and local funding and how the project could impact other expenditures in the region.	A Conceptual Finance Plan was developed and shared with the PSC on January 22, 2010. The plan illustrates how the project could be funded using a combination of federal and state funds and toll revenues. On May 14, 2010, the PSC received additional presentations related to tolling and federal funding priorities. The funding plan in the FEIS is based on these concepts and will be updated as appropriate. At the direction of the governors of Oregon and Washington, the project is working with the treasurers and legislators of both states to review and refine the financing plan and toll assumptions to minimize financial risk and provide accountability and oversight as the project moves toward construction. The funding plan will be continually reviewed with the PSC as it evolves and will be finalized prior to the Federal Transit Administration (FTA) approval of entry into final design, which is anticipated in 2012. The federal funding sources being sought for the project are principally those for which no other projects in the region are eligible. Financing issues will continue to evolve with consultation among the project partners. Additional work remains on the financing plan with each additional step requiring more detailed analyses in accordance with requirements of the Federal Transit Administration and Federal Highway Administration. After the approval of the Final EIS, additional financial analysis and commitment will be required before federal agencies authorize entering into final design. An even more detailed financial analysis and a higher level of commitment will be required before federal agencies enter into a full funding grant agreement. Since issuance of bonds for the construction of the project is envisioned, a formal investment grade bond revenue analysis and a determination of bonding capacity will be required in the future.

			The Tolling Study can be found at: http://www.columbiarivercrossing.org/FileLibrary/Tolling/CRC_TollingStudyCommitteeReport.pdf Information presented to the PSC about funding from federal sources can be found at: http://www.columbiarivercrossing.org/FileLibrary/MeetingMaterials/PSC/PSC_WorkshopMaterials_051410_1of2.pdf
	F	Capacity Considerations, Induced Demand and Greenhouse Gases – Conduct additional analysis of GHG and induced automobile demand; prominently display the results in the FEIS; include comparisons of the auxiliary lanes; pursue reductions in VMT in support of targets established by the states.	In November 2008, the Greenhouse Gas Emissions Expert Review Panel was convened to review the GHG and climate change methodology used in the project's Draft EIS. In its report issued on January 8, 2009, the panel validated the methodology and confirmed the findings in the Draft EIS - that the CRC project would be expected to reduce GHG emissions relative to the No-Build. They made suggestions for future analyses that will be incorporated into the FEIS. This updated analysis has been completed including use of the latest EPA MOVES model, taking into account mode shift to transit, bike and pedestrian, the effect of speeds on emission rates and the reduction of emissions due to crashes and bridge lifts. This analysis shows similar results to the DEIS analysis but with even greater GHG reductions than previously estimated. Additionally, the GHG and Climate Change analysis in the CRC Draft EIS received the 2009 NEPA Excellence Award from the National Association of Environmental Professionals. The Greenhouse Gas Expert Review Panel's report can be found at: http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/GHG_PanelReport_010809.pdf Since release of the DEIS, several groups, including the Transportation Demand Working Group, the Performance Measures Advisory Group, and the IPS, have worked on strategies designed to enhance mobility, especially through promotion of alternative modes of travel that reduce both GHG emissions and VMT. The strategies and plans of each of these groups have been endorsed by PSC. Additional work relating to implementation of these strategies and plans will be needed as the project advances. Further discussion relating to the recommendations and implementation of transportation demand management strategies can be found in Issue D, above. A qualitative analysis of the potential for induced travel demand was conducted by the Travel Demand Expert Review Panel. In its report dated November 25, 2008, the panel concluded that "the CRC project finding that the project would have a low impact to induce growth is reasonable for this corridor because the project is located in a mature urban area." The report can be found at: http://www.columbiarivercrossing.org/FileLibrary/TechnicalReports/TravelDemandModelReview_PanelReport.pdf An additional study of induced growth was conducted by Metro during summer 2010 using its Metroscope model. This quantitative study also concluded "that the proposal would have negligible impact on population and employment growth in Clark County, when comparing the projected growth that would occur with the project with the projected growth that would occur even with no change to the existing bridge." According to Metro, the three main conclusions from its summer 2010 analysis using Metroscope were: • The CRC project produces a minor difference in regional growth relative to the no-build alternative and almost no change compared to the No-Build if tolls are imposed on I-5. • The results using Metroscope reinforce the previous qualitative analysis with its quantitative approach. • The no-build and build scenarios result in basically the same growth patterns for population and employment and confirm the validity of the approach used for forecasting traffic volumes in the Draft and Final EIS involving holding population and employment forecasts constant between the Build and No-Build scenarios.

			Results of the Metroscope analysis were summarized by Metro in its news release that can be found at: http://news.oregonmetro.gov/1/post.cfm/metro-finds-columbia-river-crossing-toll-bridge-with-light-rail-would-have-negligible-impact-on-growth
	G	Preservation of Freight Access – Describe the physical improvements and tolling methods that will be used to ensure trucks are granted priority due to their importance relative to single-occupant autos; ensure that freight capacity at interchanges is not diminished by industrial land use conversion.	The importance of freight has been recognized throughout the project. The Freight Working Group provided key input to the design process, including the design of key interchanges such as the Marine Drive interchange. The design standards used for the project seek to accommodate trucks used in commerce. The ramp terminals, ramps, and interchanges have been sized to provide needed capacity for trucks. Freight-only lanes and ramps were considered, but were not recommended by the Freight Working Group. The project's plan for the Marine Drive interchange includes a flyover ramp from eastbound Marine Drive to northbound I-5 and braided ramps on southbound I-5 between the Marine Drive and Interstate/Victory Boulevard interchanges. Analyses conducted for the project indicate that neither of these is required short-term and can be delayed until after year 2030. Both projects, however, are considered part of a long-term solution because of the importance of accommodating freight movements, particularly those associated with the Port of Portland and other industrial uses along Marine Drive. The revised plan for the Hayden Island Interchange includes provision of an arterial bridge across the Portland Harbor, connecting Hayden Island to North Interstate Avenue and Martin Luther King Blvd in lieu of ramp connections through the I-5/Hayden Island interchange complex to the Marine Drive interchange. This has a beneficial impact for freight by removing this auto traffic from the key freight access interchange, the Marine Drive interchange. Electronic tolling is planned for the project. It is currently assumed that trucks will pay more based on number of axles or weight. Both DOTs share the concern about capacity being used up by unplanned non-industrial development, but must rely upon the partners with land use authority to prevent industrial lands from being converted to other uses with unacceptable transportation impacts. One of the relatively new methods of protecting the capacity of interchanges being used in Oregon is an Interchange Area Management Plan (IAMP). An IAMP identifies long-range improvements, access management strategies, and land use tools that are used to protect the interchange. IAMPs are adopted by the local jurisdiction and by the Oregon Department of Transportation. Development of IAMPs is underway for both the Hayden Island and Marine Drive interchanges. Adoption by the City of Portland and the Oregon Transportation Commission are expected sometime during 2011.
	H	Light Rail Transit – Implement light rail transit as a required element in any plan that moves forward.	Light rail transit was selected as the high capacity transit mode and is being advanced as a key element of the project. Confirmation of the selection of light rail transit as a project element will be with the publication of the Final EIS and the issuance of the Record of Decision. Both actions are expected in 2011. The project will pursue FTA authorization to proceed to final design in 2012 contingent on the FTA's approval of a capital and operating financing plan. In addition, C-TRAN is considering referral of a measure to the voters for operating support for LRT.
	I	Design of Bicycle and Pedestrian Facilities – Undertake additional design to include "world class" bicycle and pedestrian facilities on the bridge,	A "world class" facility for pedestrians and bicyclists is being advanced. It will feature a facility for bicyclists and pedestrians on the main span with more width than other facilities in the Portland-Vancouver region and far exceeds minimum standards. The capacity of the facility is calculated to be more than adequate for the predicted use. The Pedestrian and Bicycle Advisory Committee (PBAC) spent considerable effort helping develop a complete system that features a river crossing using one of the lower-level sections of the bridge for the main river crossing. PBAC helped develop appropriate connections at both ends of the project and for Hayden Island. PBAC also recommended development of a future maintenance and security plan that has been endorsed by PSC and committed to by the Oregon and Washington DOTs.

		approaches and throughout the bridge influence area; meet or exceed standards; be adequate to meet the demand considering tolls and other transportation demand measures.	Connections for bicyclists and pedestrians to the local network in downtown Vancouver, Hayden Island, and streets and multi-use paths in the vicinity of Marine Drive and Delta Park are still undergoing refinement. The project is committed to providing good connections that meet or exceed all applicable standards, such as width and grade, that avoid or minimize conflicts among modes of travel, and that seeks to improve the existing circuitous routing patterns in the area. Many features needed to implement this vision for a world class facility in the corridor, such as the precise locations, widths, grades, etc will be determined in the final design phase including consultation with local agencies and stakeholders.
	J	Urban Development Impacts at Re-designed Interchanges – Undertake additional evaluation of the impact of redesigned interchanges and urban development potential; preserve and improve access to the Expo Center.	Several of the interchanges, especially the Marine Drive and Hayden Island interchanges, have undergone considerable additional analyses. Key participants in these evaluations have been the Marine Drive Stakeholder Group and the Portland Working Group. Several options for the Marine Drive interchange were explored. Key issues considered in the designs for the Marine Drive interchange included the impact on freight movements, access to existing industrial uses in the area, access to the Expo Center, and the creation of parcels that could be put to beneficial uses. The Hayden Island interchange also underwent additional study designed to further the Hayden Island Plan and implement features that are supportive of transit, seek to implement a "main street" for Tomahawk Island Drive, and minimize the footprint of the project on Hayden Island. Additional analyses led to a new concept (known as Concept D) utilizing an arterial bridge to provide access between Hayden Island and N. Expo Road with a corresponding elimination of direct freeway ramps within the project design between Hayden Island and the Marine Drive interchange. Efforts are currently underway to incorporate this into a design that will be included as the preferred option in the Final EIS. Additional refinement work addressing urban design characteristics will continue as the project advances toward construction. The Portland Working Group and other stakeholders will be consulted as the project seeks to advance the design. Overall, the combination of improvements at and around the Marine Drive and Hayden Island interchanges substantially improves local connectivity and access apart from the freeway improvements and the resulting removal of the congestion bottleneck. Access to/from Expo is substantially improved and representatives from Expo have been involved in the process.
	K	Bridge Design – Consider bridge type and aesthetics before the final design.	In seeking to achieve a quality design meeting aesthetic values, the project has made extensive use of advisory groups including the Urban Design Advisory Committee (UDAG), a Sustainability Working Group, the Independent Review Panel (IRP), the Hayden Island Design Group, and a constructability working group. The Urban Design Advisory Committee (UDAG) developed design guidelines and recommended a two-level, two-bridge concept that is being advanced. Overall guidance has been provided by the IPS and PSC to meet these objectives. UDAG's recommended guidelines are currently being developed into "architectural standards" by WSDOT and CRC staff to use as the project moves into final design. These standards will be shared with UDAG, the cities of Portland and Vancouver, and other stakeholders and will be used for the bridge and other elements of the project. Beginning on November 3, 2010, the Bridge Expert Review Panel began reassessing bridge types, and constraints. In its final report on February 3, 2011, the Panel offered three more feasible bridge type alternatives for consideration, a tied arch, cable-stayed and deck truss. The panel found all

			three options less expensive and more suitable for the crossing over the Columbia River than the open web box bridge type that had been advanced. At the direction of the governors of Oregon and Washington, the two state DOTs reviewed the Panel's recommendation and reported back to the governors with project findings on February 25, 2011. On April 25, 2011, the governors of Oregon and Washington announced the selection of the deck truss bridge type for the replacement bridge. The governors cited several reasons for the selection including reducing and eliminating risks to schedule and budget; affordability; and the ability to secure funding. The Bridge Panel's final report can be found at: http://www.columbiarivercrossing.com/FileLibrary/GeneralProjectDocs/BRP_Report.pdf The Washington and Oregon DOT's findings can be found at: http://www.columbiarivercrossing.org/FileLibrary/GeneralProjectDocs/DOTs_Draft%20Recommendation.pdf The Governors' announcement can be found at: http://www.columbiarivercrossing.com/FileLibrary/GeneralProjectDocs/DeliverCRC_GovPR.pdf The governors recognized the importance of design and aesthetic considerations and committed to specific actions. They committed to engaging the design community and stakeholders in the design process. They directed the project to add an architect to the project team and establish architectural specifications for the contractor to follow. Details of these actions are being developed and will be announced and advertised by the project. The Governors' April 25, 2011 announcement of the "Next Steps" can be found at: http://www.columbiarivercrossing.org/FileLibrary/GeneralProjectDocs/Gov_BridgeRecommend.pdf

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 11-4264, for the purpose of CONCLUDING THAT THE CONCERNS AND CONSIDERATIONS RAISED ABOUT THE COLUMBIA RIVER CROSSING PROJECT IN EXHIBIT A TO RESOLUTION NO. 08-3960b HAVE BEEN ADDRESSED SATISFACTORILY

Date: May 23, 2011

Prepared by: Andy Cotugno
503-797-1763

BACKGROUND

Overview

The Columbia River Crossing (CRC) is a proposed multimodal bridge, transit, highway, bicycle and pedestrian improvement project sponsored by the Oregon and Washington transportation departments in coordination with Metro, TriMet and the City of Portland as well as the Regional Transportation Council of Southwest Washington, CTRAN and the City of Vancouver, Washington. (More detailed project information may be found at: http://www.columbiarivercrossing.org/).

The CRC project is designed to improve mobility and address safety problems along a five-mile corridor between State Route 500 in Vancouver, Washington, to approximately Columbia Boulevard in Portland, Oregon, including the Interstate Bridge across the Columbia River.

The project would be funded by a combination of Federal Transit Administration (FTA) New Starts funding for the transit component, Federal Highway Administration (FHWA) funding for highway, freight, bicycle and pedestrian improvements, with local match being provided by the states of Oregon and Washington through toll credits and other funding. Tolls are also proposed for a new I-5 bridge to pay for a portion of the capital project and manage transportation demand.

Locally Preferred Alternative Approval

In July, 2008 the Metro Council adopted Resolution No. 09-3960B endorsing the Locally Preferred Alternative (LPA) consisting of replacement of the I-5 Interstate Bridge with three through lanes each direction plus auxiliary merging and weaving lanes, extension of light rail transit to Vancouver, Washington, provision of bike and pedestrian facilities on the bridge and connecting to the regional network and implementation of congestion pricing as both a demand management and revenue tool.

However, that resolution also raised a number of concerns and considerations needing to be addressed prior to finalizing the project through publication of a Final Environmental Impact Statement. Some of the concerns and considerations dealt with issues that could potentially change specific aspects of the project design (such as the number of lanes or the design of the Hayden Island Interchange) while other concerns dealt with development of further information about the potential impacts of the project (such as the impact on traffic on I-205).

This staff report and Exhibit B to this resolution provide information relating to those concerns and considerations and analyses and conclusions reached since that action. The overall purpose of this resolution is to provide sufficient information to demonstrate that all of the concerns and considerations have been adequately addressed, thereby allowing the project development to be completed.

The underlying policy direction calling for the project in the first place is laid out in the Regional Transportation Plan adopted and periodically updated by Metro. In addition the staff report for Resolution No. 08-3960B approving the Locally Preferred Alternative provides considerable background on the alternatives considered, impacts evaluated and process followed to arrive at that decision, much of which is also published in the Draft Environmental impact Statement for the project.

Adoption of concerns and considerations to be addressed further

While the Metro Council expressed their support for this LPA, they also expressed concern about a number of issues they felt needed to be addressed before the project development is completed. As such the resolution also identified those concerns and considerations, calling for them to be addressed by the CRC project. Of particular concern were the following:

1. Assessment of tolling including timing of implementation and whether to extend tolls to I-205 and the traffic impacts if tolls are not extended to I-205;
2. Evaluation of the number of auxiliary lanes in addition to the three through lanes each direction;
3. Consideration of mitigation for any potential adverse human health impacts including community enhancements that address environmental justice;
4. Development of state of the art demand management techniques in addition to tolls;
5. Development of a financing plan with particular attention to how the revenue sources impact other projects in the region;
6. Assessment of greenhouse gases and the potential for induced growth and travel demand;
7. Preservation of the priority for freight access including ensuring that interchange capacity is not diminished by industrial land conversion;
8. Inclusion of light rail as part of any phasing plan that is developed;
9. Development of the bike/pedestrian facilities throughout the bridge influence area as "world-class" facilities;
10. Re-examination of interchange designs to minimize community impacts and maximize LRT station-area development opportunities. Particular attention should be paid to revisiting the Hayden Island Interchange and ensuring adequate access to the Expo Center;
11. Consideration of the bridge type and design to ensure aesthetic considerations are reflected in the final design.

CRC Response to concerns and conditions

In response to the conditions adopted by the Metro Council, as well as numerous other concerns raised by the other participating jurisdictions, the CRC Project responded through a multi-pronged approach:

1. The Project Sponsors Council (PSC) met on a much more frequent basis to review analyses and develop agreements on changes to incorporate into the project or reasons with better support documentation if changes were not warranted.
2. An Integrated Project Staff (IPS) working group was created co-chaired by the PSC co-chairs to carry-out the analyses commissioned to respond to the conditions.
3. Subcommittees of the IPS with participation by multiple partners were convened to focus on the following topics:
    a. Hayden Island Interchange re-design or removal;
    b. Vancouver City Center Interchange removal;
    c. Number of auxiliary lanes;
    d. Induced growth;
    e. Application of performance measures to the project scope decisions;
    f. Definition of construction mitigation travel demand management program;
    g. Definition of post-construction travel demand management program;

h. Post-construction governance and the role of a Mobility Council;
i. Phasing strategies.

4. The Governors of Oregon and Washington commissioned an Independent Review Panel which met from April to July of 2010. It was comprised of eight nationally recognized experts in developing, financing and implementing large complex multi-modal projects to do a thorough independent review of the project. They made recommendations for changes, and actions to be taken to reduce risk. The full recommendation report can be accessed at: http://crcreview.columbiarivercrossing.org/documents/IRP_report.pdf
5. In response to one of the recommendations of the Independent Review Panel, the Governors of Oregon and Washington commissioned a Bridge Review Panel which met from September 2010 to February 2011. It was comprised of 11 internationally recognized bridge experts plus the state bridge engineers for the states of Oregon and Washington and representatives from TriMet and C-TRAN. They were charged with evaluating the viability of the bridge type being pursued and recommend whether to proceed with the current bridge type proposal or an alternate bridge type, including consideration of whether some of the constraints that have controlled key aspects of the bridge design could be altered. The full report from the Bridge Panel can be accessed at: http://www.columbiarivercrossing.com/FileLibrary/GeneralProjectDocs/BRP_Report.pdf
The decision of the Governors on the recommendation of the bridge panel can be accessed at: http://www.columbiarivercrossing.com/FileLibrary/GeneralProjectDocs/DeliverCRC_GovPR.pdf
6. The City of Portland contracted with the engineering consulting firm URS to provide independent expertise in examining design options to remove or revise the Hayden Island Interchange and traffic operations and engineering analysis of 8, 10 and 12 lane bridge options.

Satisfaction of Concerns and Considerations

Exhibit B to this resolution provides documentation on how each condition has been satisfied. Presented in the table is a brief restatement of the condition being addressed and a synopsis of the conclusions and recommendations about each condition. In addition, in most cases there is an electronic link to the CRC web-site providing direct access to the full report on that subject. In this manner, the reader can review the overall conclusion but also access greater detail if desired. Also presented as part of Exhibit B is an assessment by the Project Sponsors Council and the Independent Project Staff of whether the concern is fully and finally decided and will be reflected as such in the Final Environmental Impact Statement or whether there is agreement in principle with further decisions still pending later in the process. For example, there is agreement in principle about the parameters for tolling although the specific toll rates will not be made until much closer to opening day. In each case where a future decision will be necessary, the character of that future process is provided.

The conditions and conclusions presented in Exhibit B are as follows:

A. Tolling
B. Number of Auxiliary lanes
C. Impact Mitigation and Community Enhancement
D. Demand Management
E. Financing Plan
F. Greenhouse Gases and Induced Demand
G. Preservation of Freight Access
H. Light Rail Transit
I. Bike/Pedestrian Facilities
J. Interchange redesign and urban development impacts
K. Bridge Design

ANALYSIS/INFORMATION

1. **Known Opposition**

   The CRC is a very large and complex transportation project. There are strong feelings – pro and con – associated with the project. Opposition to the project includes concerns raised regarding the need for the project, greenhouse gas emissions that could be generated by the project, costs, tolls, the light rail extension to Vancouver, Washington and the aesthetic qualities of the bridge type. Opposition to tolls and light rail in Clark County has been well organized and aggressive. Opposition on the Oregon side has included concern that the project will simply worsen the bottleneck on I-5 in the vicinity of the Fremont Bridge and I-84 interchange. While it does not worsen that bottleneck, there remains criticism that the project shouldn't be built if it doesn't address an equally severe bottleneck just downstream.

   Support for the project includes addressing the severe bottleneck and safety issues, the impact on freight movement and the opportunity to significantly improve transit service to Vancouver.

2. **Legal Antecedents**

   Federal
   - National Environmental Policy Act
   - Clean Air Act
   - SAFETEA-LU
   - FTA New Starts Process

   State
   - Statewide Planning Goals
   - State Transportation Planning Rule
   - Oregon Transportation Plan
   - Oregon Highway Plan
   - Oregon Public Transportation Plan
   - Oregon Bicycle and Pedestrian Plan

   Metro
   - Resolution No. 02-3237A, "For the Purpose of Endorsing the I-5 Transportation and Trade Study Recommendations," adopted on November 14, 2002.
   - Resolution No. 07-3782B, "For the Purpose of Establishing Metro Council Recommendations Concerning the Range of Alternatives to Be Advanced to a Draft Environmental Impact Statement For the Columbia River Crossing Project," adopted on February 22, 2007.
   - Resolution No. 07-3831B, "For the Purpose of Approving the Federal Component of the 2035 Regional Transportation Plan (RTP) Update, Pending Air Quality Conformity Analysis," adopted on December 13, 2007.
   - Resolution No. 08-3911, "For the Purpose of Approving the Air Quality Conformity Determination for the Federal Component of the 2035 Regional Transportation Plan and Reconforming the 2008-2011 Metropolitan Transportation Improvement Program," adopted on February 28, 2008.
   - Resolution No. 08-3938B, "For the Purpose of Providing Metro Council Direction to its Delegate Concerning Key Preliminary Decisions Leading to a Future Locally Preferred Alternative Decision for the Proposed Columbia River Crossing Project," adopted on June 5, 2008.

- Resolution No. 08-3960B "For the Purpose of Endorsing the Locally Preferred Alternative for the Columbia River Crossing Project and Amending the Metro 2035 Regional Transportation Plan with Conditions." adopted July 17, 2008.
- Ordinance 10-1241B "For the Purpose of Amending the 2035 Regional Transportation Plan (Federal Component) and the 2004 Regional Transportation Plan to Comply With Federal and State Law; to Add the Regional Transportation Systems Management and Operations Action Plan, the Regional Freight Plan and the High Capacity Transit System Plan; to Amend the Regional Transportation Functional Plan and Add it to the Metro Code; to Amend the Regional Framework Plan; and to Amend the Urban Growth Management Functional Plan." Adopted on June 10, 2010.

3. **Anticipated Effects**

The approval of this resolution would be to "perfect" the endorsement of the Locally Preferred Alternative and remove the conditions imposed by Resolution No. 08-3960B. This would allow the project scope to be finalized through the Final Environmental Impact Statement, would allow Metro to consider approval of the Land Use Final Order and allow the Federal Highway Administration and Federal Transit Administration to issue a Record of Decision. With these actions in place, the project can proceed from the current development stage into final design.

4. **Budget Impacts**

If there is a role for Metro to play, the CRC project would reimburse Metro for any costs incurred for such work (this could be additional updated travel forecasting and updated rating information for the New Starts submission, for example).

RECOMMENDED ACTION

Adopt Resolution No. 11-4264 For the Purpose of Concluding that the Concerns and Considerations Raised About the Columbia River Crossing Project in Exhibit A to Resolution No. 08-3960B have been Addressed Satisfactorily.

Materials following this page were distributed at the meeting.

Columbia River CROSSING

A long-term, comprehensive solution

Metro Council Workshop: Status of LPA Conditions

Metro Council
May 31, 2011

Oregon Department of Transportation

Washington State Department of Transportation

Federal Transit Administration • Federal Highway Administration
City of Vancouver • City of Portland • SW Washington Regional Transportation Council • Metro • C-TRAN • TriMet

Today's presentation

- **Project history and background**
  - NEPA Process
- **Status report on Metro's LPA conditions**
- **Next Steps**

Columbia River CROSSING

Project history and background

Oregon Department of Transportation

Washington State Department of Transportation

Federal Transit Administration • Federal Highway Administration
City of Vancouver • City of Portland • SW Washington Regional Transportation Council • Metro • C-TRAN • TriMet

Timeline

- **Regional planning**
- **CRC Begins: Identify problems and solutions**
  - Purpose and Need
  - Evaluation criteria
- **Preliminary alternatives**
- **Draft EIS**
  - Select alternatives; analyze effects
  - Publish results and receive public comment

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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
1999-02	2005	2006	2007-08	2008-11	2011	2012 ⟶

Timeline (continued)

- **Preferred alternative**
  - Local partners select preferred alternative
  - Refine designs with partners and public
- **Final EIS and Record of Decision**
  - Analyze effects and publish results
  - Receive federal approval to proceed into next phase
- **Final engineering and construction**

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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
1999-02	2005	2006	2007-08	2008-11	2011	2012 ⟶

Portland/Vancouver I-5 Transportation and Trade Partnership

- **26 Member Bi-state Governors' Task Force**
  - Metro, Tri-Met, Portland, ODOT, Ports, WTC, C-Tran, Vancouver, Clark and Multnomah counties, neighborhoods, businesses, industry, citizen groups
- **Address growing congestion on I-5 from I-205 to I-84**
- **Determine investments needed for highway, transit and heavy rail, and how to manage transportation and land use systems to protect investments**

I-5 Transportation and Trade Partnership

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I-5 Transportation/Trade Partnership Recommendations for BIA

- **Fix three I-5 bottlenecks:**
  - I-5 Salmon Creek in Clark County **- Completed 2006**
  - Delta Park in Portland **- Completed 2010**
  - Interstate Bridge and nearby interchanges **- FEIS to be submitted 2011**

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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
1999-02	2005	2006	2007-08	2008-11	2011	2012 ⟶

I-5 Transportation/Trade Partnership Recommendations for BIA (CRC project area)

- **Construct new transit and vehicle capacity**
  - 3 through-lanes and up to 2 aux or arterial lanes in each direction across the river
  - Add LRT service across the river in I-5 Trade Corridor
  - Redesign freeway to balance ons and offs
  - Include safety considerations
- **Undertake an EIS**
  - 8- or 10-lane freeway concepts
  - Replacement or supplemental bridges
  - Joint use or non-joint use freeway/LRT bridge
  - HOV throughout corridor

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Public process to develop solutions

- **2001 – 2002**
  I-5 Transportation and Trade Partnership
- **2005 – 2008**
  39-member CRC Task Force
- **2008 – today**
  Project Sponsors Council and citizen advisory groups
- **More than 27,000 people engaged at over 900 events**

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Early Steps in the NEPA Process

- **Form project partner team beginning early 2005**
- **CRC Task Force formed early 2005**
  - Representing local agencies, businesses, civic organizations, neighborhoods, freight, commuter, environmental groups
  - Finalized Problem Definition in Dec. 2005
  - Finalized Vision and Values in Oct. 2005
- **Notice of Intent – Sept 27, 2005**
- **Open Houses start new phase of involvement – fall 2005**
- **Purpose and Need – Jan. 2006**
  - Built on past studies and new analysis
  - New stakeholder input
- **Evaluation Framework – April 2006**

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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
1999-02	2005	2006	2007-08	2008-11	2011	2012 ⟶

Purpose and Need: Address Six Problems

- **Congestion**
  Growing travel demand exceeds capacity
- **Public transit**
  Service and reliability are limited by congestion
- **Freight**
  Mobility through the area is impaired
- **Safety**
  Crash rates are too high
- **Bicyclists and pedestrians**
  Paths and connections are inadequate
- **Earthquake safety**
  Bridges don't meet current seismic standards

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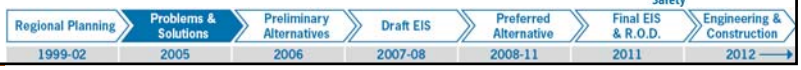

Major Steps in Screening:

1. **Gather ideas (transit, river crossing, interchanges, bike/ped) – Fall 2005**
2. **Develop Evaluation Framework – Early 2006**
3. **Apply Steps A and B to ideas (70 components) - 2006**
   - Pass/Fail criteria (Step A) - purpose and need
   - Detailed Screening Criteria (Step B)
4. **Package remaining ideas into a "reasonable range" of alternatives (12) – Summer 2006**
5. **Evaluate alternatives against the screening criteria – Summer - Fall 2006**
6. **Carry forward promising alternatives into the DEIS – Fall 2006**

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Task Force Screening and Evaluation Criteria

1. Community Livability and Human Resources
2. Mobility, Reliability, Accessibility, Congestion Reduction, and Efficiency
3. Modal Choice
4. Safety
5. Regional Economy/Freight Mobility
6. Stewardship of Natural Resources
7. Distribution of Benefits and Impacts
8. Cost Effectiveness and Financial Resources
9. Growth Management and Land Use
10. Constructability

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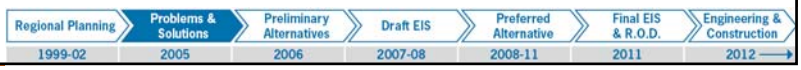

70 Ideas to Solve Transportation Problems

- **Six categories:**
  - River Crossing – 23 ideas
  - Transit – 14 ideas
  - Bicycle and Pedestrian – 6 ideas
  - Freight – 5 ideas
  - Transportation Demand/System Management – 18 ideas
  - Roadways North and South – 2 ideas

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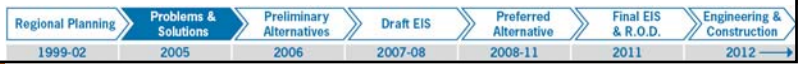

River Crossing – 23 ideas

- **Replacement Bridge – Downstream**
  - Low-level/Movable
  - Mid-level
  - High-level
- **Replacement Bridge – Upstream**
  - Low-level/Movable
  - Mid-level
  - High-level
- **Supplemental Bridge – Downstream**
  - Low-level/Movable
  - Mid-level
  - High-level
- **Supplemental Bridge – Upstream**
  - Low-level/Movable
  - Mid-level
  - High-level
- **Tunnel to Supplement I-5**
- **New Corridor Crossing**
- **New Corridor Crossing plus widen existing I-5 Bridges**
- **New Western Highway (I605)**
- **New Eastern Columbia River Crossing**
- **I-205 Improvements**
- **Arterial Crossing to Supplement I-5**
- **Replacement Tunnel**
- **33rd Avenue Crossing**
- **Non-Freeway multi-modal Columbia River Crossing**
- **Arterial Crossing with I-5 Improvements**

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Transit – 14 ideas

- **Express Bus in General Purpose Lanes**
- **Express Bus in Managed Lanes**
- **Bus Rapid Transit (BRT) – Lite**
- **Bus Rapid Transit (BRT) – Full**
- **Light Rail Transit (LRT)**
- **Streetcar**
- **High Speed Rail**
- **Ferry Service**
- **Monorail System**
- **Magnetic Levitation Railway**
- **Commuter Rail in BNSF Trackage**
- **Heavy Rail**
- **Personal Rapid Transit**
- **People Mover/Automated Guideway Transit (AGT)**

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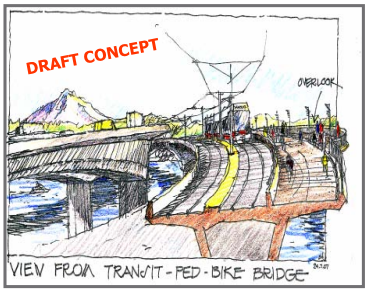
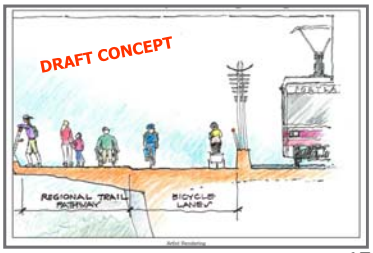
Bicycle and Pedestrian Components – 6 ideas

- Enhance Existing Pathway
- New I-5 Bridge and Pathway
- New I-5 Pathway-Only Bridge
- Enhanced Vancouver Connectivity
- Enhanced Hayden Island Connectivity
- New North Portland Pathway (Hayden Island to Marine Dr)





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Freight Components – 5 ideas

- I-5 Mainline Freight-Only Lanes
- Interchange Ramp Freight Bypass Lanes
- Peak Period Truck Freight Restrictions
- Allow Increased Freight Truck Size and Weight
- Freight Direct Access Ramps at Select Interchanges

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Transportation Demand/System Management –18 ideas

- Northern I-5 Managed Lane Through Re-striping
- Northern I-5 Transit-Only Lane Through Re-striping
- I-5 Managed Lane within the Bridge Influence Area
- I-5 Transit-Only Lane within the Bridge Influence Area
- Reversible Express Managed Lane
- Direct Access Ramps to Managed Lanes
- Preferential Managed Lane Merge(s)
- Ramp Queue Bypass Lanes
- Increased Bus Service
- Enhanced Park and Ride Capacity
- Enhanced Intelligent Transportation System Technology
- Improve Employer and Government Demand Management Policies
- Reduce Passenger Travel Time on Interstate MAX
- Transit Priority Signal System
- Congestion Pricing on I-5
- Highway On-Ramp Metering
- Arterial Managed Lanes
- Ramp Terminal Improvements

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Roadways North and South Components – 2 ideas

- Further definition and refinement of river crossing and transit components
- Ongoing analysis of I-5 Partnership concepts

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Step A Overview

- **Six Pass/Fail questions derived from the P&N/Problem Definition**
- **A "fail" answer to any of the six questions removes the component from further consideration**
- **Step A screening process applied only to components within the Transit and River Crossing categories**
  - Other 6 categories don't lend themselves to Step A/B screening
  - Evaluation within these categories depends on pairing transit and river crossing components
  - Components in other 6 categories will be available for alternative packaging

TR-11 Commuter Rail Transit

TRANSIT

Advance:

Yes ☐

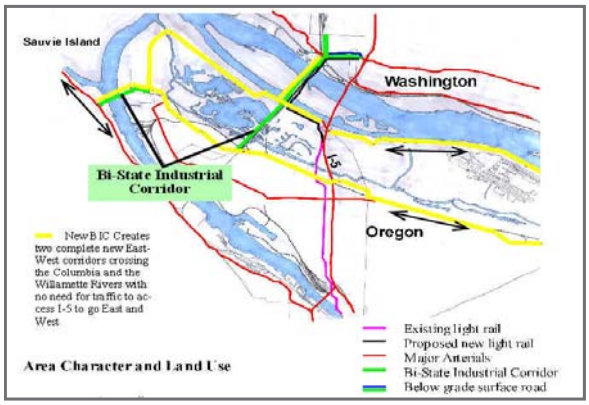
No ☑

RC-14 New Corridor Crossing Near BNSF Rail Crossing

Advance:

Yes ☐

No ☑



Columbia River CROSSING

Packaging the most promising components into multi-modal alternatives

- **July 2006 – 12 alternative packages created**
- **Combined different river crossing types and transit modes**
  - No action
  - TSM/TDM focus
  - Supplemental bridge for arterial traffic with light rail
  - Supplemental bridge for I-5; light rail on existing bridge
  - Supplemental bridge for I-5; BRT on existing bridge
  - Supplemental bridge for I-5; BRT-lite on existing bridge
  - Supplemental bridge for I-5 and express bus
  - Replacement bridge for I-5 with light rail and express bus
  - Replacement bridge for I-5 with light rail
  - Replacement bridge for I-5 with BRT
  - Replacement bridge for I-5 with BRT-lite
  - Replacement bridge for I-5 with express bus

Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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Alternative packaging

Columbia River CROSSING

Table 3-1. Draft Alternative Packaging Matrix

Revision date: July 11, 2006

			Alternative Packages											
			Existing Bridges Only		Supplemental Bridge with Existing Bridges				Replacement Bridge					
			#1	#2	#3	#4	#5	#7	#8	#9	#10	#11	#12
Alternative Package Title			No Action	Trans. System Management/Trans. Demand Management	Supplemental Bridge for Arterial Traffic with Light Rail	Supplemental Bridge for I-5 Light Rail on Existing Bridge	Supplemental Bridge for I-5 Bus Rapid Transit on Existing Bridge	Supplemental Bridge for I-5 Bus Rapid Transit Lite on Existing Bridge	Supplemental Bridge for I-5 and Express Bus	Replacement Bridge for I-5 with Light Rail and Express Bus	Replacement Bridge for I-5 with Light Rail	Replacement Bridge for I-5 with Bus Rapid Transit	Replacement Bridge for I-5 with Bus Rapid Transit Lite	Replacement Bridge for I-5 with Express Bus
Alternative Package Themes			No Action	Minimum Investment/ TDM/ TSM Emphasis	Maximum Transit Ridership, Minimum I-5 Improvements	Balanced Transit/Highway Improvements with LRT	Balanced Transit/Highway Improvements with BRT-Full	Balanced Transit/Highway Improvements with BRT-Lite	Maximum Vehicle Capacity	Balanced Transit/Highway Improvements with LRT	Balanced Transit/Highway Improvements with LRT	Balanced Transit/Highway Improvements with BRT-Full	Balanced Transit/Highway Improvements with BRT-Lite	Maximum Vehicle Capacity
High Capacity Transit Mode across Col. River			None	None	LRT	LRT	BRT-Full	BRT-Lite	None	LRT	LRT	BRT-Full	BRT-Lite	None
Other Transit Mode(s) across bridge			Express bus, local bus	Express bus, local bus	Express bus, local bus	Local bus	Local bus	Local bus	Express bus, local bus	Express bus, local bus	Local bus	Local bus	Local bus	Express Bus, local bus
Function of Existing Bridges			I-5 (SP lanes)	I-5 (SP lanes)	I-5 (SP lanes)	Arterial+LRT	Arterial+BRT	Arterial + BRT	Arterial	N/A	N/A	N/A	N/A	N/A
Function of New Bridge			N/A	N/A	Arterial + LRT	I-5 NB 6SB (w/ ML)	I-5 NB 6SB (w/ ML)	I-5 NB 6SB (w/ ML)	I-5 NB 6 SB (w/ ML)	I-5 NB 6SB (w/ ML) & LRT	I-5 NB 6SB (w/ ML) & LRT	I-5 NB 6SB (w/ ML) & BRT	I-5 NB 6SB (w/ ML) & BRT	I-5 w DP lanes
River Crossing Components	RC-3	Repl/Down/Mid								✓	✓		✓	
	RC-4	Repl/Up/Mid										✓		✓
	RC-9	Supl/Down/Mid				✓	✓	✓						
	RC-23	Arterial (New Bridge)			✓									
Roadways North/South	RND-1	Interchange Improvements				✓	✓	✓	✓	✓	✓	✓	✓	✓
	RND-2	Arterial improvements			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RND-3	I-5 Safety Improvements		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Transit Components	TR-1	Express Bus in GP	✓	✓	✓				✓	✓				✓
	TR-2	Express Bus in Managed Lanes												
	TR-3	BRT-Lite					✓						✓	
	TR-4	BRT-Full				✓						✓		
	TR-8	LRT			✓	✓	✓	✓	✓	✓	✓			
Bicycle/ Pedestrian Components	B/P-1	Enhance Existing		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B/P-2	Path on New Bridge			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B/P-4	Vanc. Connectivity		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B/P-6	Hayden Is. Conn.		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	B/P-8	N. Portland Pathway		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Freight Components	F-1	Freight in Managed Lanes			✓	✓	✓					✓		
	F-2	Fr. Bypass Lanes			✓	✓	✓					✓		
	F-4	Fr. SA Ramps										✓		
TSM/TDM Components	T-B	Basic	✓											
	T-A	Aggressive		✓[4]	✓[4]	✓	✓	✓	✓	✓	✓	✓	✓	✓

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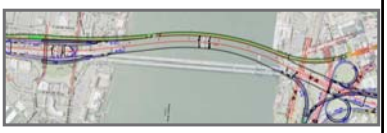
River Crossing Concepts Evaluated

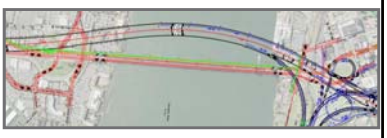
RIVER CROSSING

- **RC-3: Replacement Bridge Downstream/Midlevel**

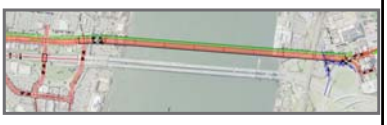


- **RC-4: Replacement Bridge Upstream/Midlevel**

- **RC-9: Supplemental Bridge Downstream/Midlevel**



- **RC-23: Arterial Crossing with I-5 Improvements**



Key Findings from Preliminary Alternatives

- **Delays associated with lift spans degrade transit reliability**
- **HCT modes in exclusive guideways increase reliability and decrease delay**
- **Replacement bridge options performed better in most of the criterion**
- **Supplemental bridge options created more displacements on Hayden Island and the Vancouver National Historic Reserve**
- **Marine and aviation navigation are important constraints**

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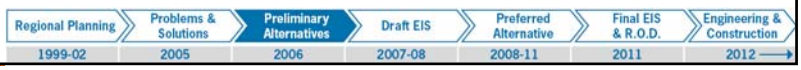
Columbia River CROSSING



Supplemental Bridge Alternative Added

- **Staff recommended 3 alternatives for DEIS**
  - No Build
  - 2 alternatives with a replacement bridge
- **Task Force requested a supplemental bridge that could meet the Purpose & Need be added**
  - A subcommittee of task force members was established
  - CRC technical staff assisted the subcommittee
  - A revised supplemental bridge alternative was added into the DEIS analysis

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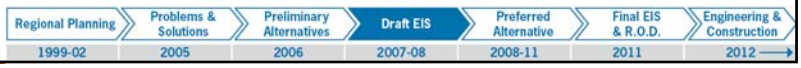
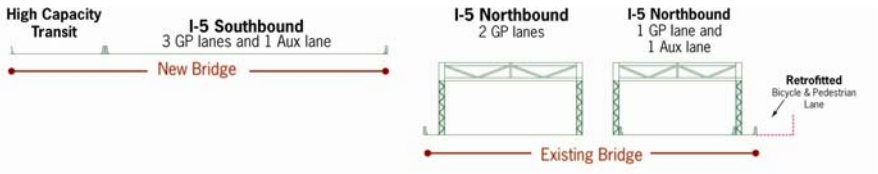
Columbia River CROSSING



Mid-River Cross Section of "Fourth Alternative" – Supplemental Bridge



Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
1999-02	2005	2006	2007-08	2008-11	2011	2012 ⟶

Alternatives for Analysis in Draft Environmental Impact Statement

1. **No build**
2. **Replacement bridge with bus rapid transit**
3. **Replacement bridge with light rail**
4. **Supplemental bridge with bus rapid transit**
5. **Supplemental bridge with light rail**

All "build" alternatives include interchange, freight, and pedestrian/bicycle improvements between SR-500 and Delta Park.

Columbia River CROSSING

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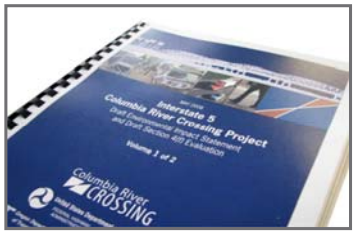
Draft EIS issued May 2, 2008

- **60 day public comment period:**
  - Extensive outreach and notification
  - Open houses and public hearings
  - 1,600 public comments received
- **CRC Task Force**
  - Members learned early DEIS findings and discussed LPA preferences in January 2008
  - Public and written testimony provided; summary of 700 DEIS comments also provided
  - Task Force voted 37-2 to adopt LPA resolution June 24, 2008



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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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LPA Endorsement and Adoption

- **July 2008 - All 6 local sponsor agencies vote in favor of LPA resolutions**
  - Some held public hearings in advance of vote
- **Represents regional agreement**
- **Some sponsor agency leaders had questions for the FEIS process, including:**
  - Need independent review of travel demand analysis
  - Need independent review of GHG analysis
  - Can tolling or other TDM strategies further reduce demand?
  - Can increasing transit service further reduce demand?
  - Raised concern over induced growth and costs
- **Adopted into MTP and RTP in July 2008**

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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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Locally Preferred Alternative

- **Replacement I-5 bridge**
  - 3 through lanes with up to 3 auxiliary lanes
  - 2 or 3 bridge structures
- **Improvements to closely-spaced highway interchanges**
- **Light rail extension to Clark College**
- **Pedestrian and bicycle facility improvements**

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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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Columbia River CROSSING

Status report on Metro's LPA conditions

Oregon Department of Transportation

Washington State Department of Transportation

Federal Transit Administration • Federal Highway Administration
City of Vancouver • City of Portland • SW Washington Regional Transportation Council • Metro • C-TRAN • TriMet

Metro Resolution 08-3960B Endorsing the Locally Preferred Alternative – July 17, 2008

- Endorsed a multi-modal solution with highway, high capacity transit, freight, transportation demand management, and bicycle/pedestrian solutions
- Endorsed a replacement bridge with three northbound and three southbound through lanes
- Endorsed tolls for finance and demand management
- Endorsed light rail as the high capacity transit alternative
- Endorsed a light rail terminus in Vancouver
- Identified eleven areas of concern to be addressed as the project moves forward

Columbia River CROSSING

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Metro's Conditions (from Resolution 08-3960B)

A. Tolling
B. Number of Auxiliary Lanes
C. Impact Mitigation and Community Enhancement
D. Demand Management
E. Financing Plan
F. Capacity Considerations, Induced Demand and Greenhouse Gases
G. Preservation of Freight Access
H. Light Rail
I. Design of Bicycle and Pedestrian Facilities
J. Urban Development Impacts at Redesigned Interchanges
K. Bridge Design

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A. Tolling

- **Analyses of Tolling**
  - Tolling analysis for DEIS/FEIS (2008 – 2011)
  - Tolling Study Report to the Legislatures (2009 – 2010)
  - Oregon Treasurer's Analysis (Underway)
  - Investment Grade Analysis (Future)

Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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Tolling Study Scenarios

	Scenarios Analyzed	Min/Max Toll Rate (2006$)	Min/Max Toll Rate (2018$)	Tolls Collected	Toll Schedule Type	Tolling Start Date
Tolling I-5 Only	**Scenario 1A** *DEIS Toll Rate*	$1.00 / $2.00	$1.34 / $2.69	Each Way	Symmetric Variable Toll Schedule	July 1, 2018 (FY 2019)
	Scenario 1B *Lower than DEIS Toll Rate*	$1.00 / $1.50	$1.34 / $2.02			
	Scenario 1C *Flat Toll Rate*	$1.65	$2.22		Symmetric Fixed Toll Schedule	
	Scenario 1D *Additional Price Points*	$1.00 / $2.50	$1.34 / $3.36		Symmetric Variable Toll Schedule	
	Scenario 1E *1.5x DEIS Toll Rate*	$1.50 / $3.00	$2.02 / $4.03			
	Scenario 1F *2x DEIS Toll Rate*	$2.00 / $4.00	$2.69 / $5.38			
	Scenario 1G *3x DEIS Toll Rate*	$3.00 / $6.00	$4.03 / $8.07			
	Pre-Completion Tolling[1] *DEIS Toll Rate*	$1.00 / $2.00	$1.34 / $2.69	Each Way	Symmetric Variable Toll Schedule	July 1, 2013 (FY 2014)
Tolling I-5 and I-205	**Scenario 2A** *DEIS Toll Rate*	$2.00 / $4.00	$2.69 / $5.38	Southbound Only[2]	Symmetric Variable Toll Schedule	July 1, 2018 (FY 2019)
	Scenario 2B *Lower than DEIS Toll Rate*	$2.00 / $3.00	$2.69 / $4.03			
	Scenario 2C *Lower I-205 Toll*	I-5: $2.00 / $4.00 I-205: $2.00 / $3.00	I-5: $2.69 / $5.38 I-205: $2.69 / $4.03			

[1] Pre-Completion Tolling to be added to any other scenario

[2] A round-trip toll is collected on scenarios tolling Southbound only

Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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Tolling Study Report Traffic Conclusions

- For most I-5 only toll scenarios, majority of drivers would not change travel patterns though some would choose new destination or diversion.
- Tolling and transit improvements reduce auto travel across the river on I-5 by about 40,000 trips per day relative to No-Build. (Varies by toll scenario.)
- Higher tolls cause more diversion. Diversion tends to be lower during peak periods than during off-peak.
- Tolling of both I-5 and I-205 causes higher volumes on I-5 and lower on I-205 relative to tolling only I-5. The no-toll, no-build scenario results in highest congestion on I-205 due to the severe congestion on I-5.

Columbia River CROSSING

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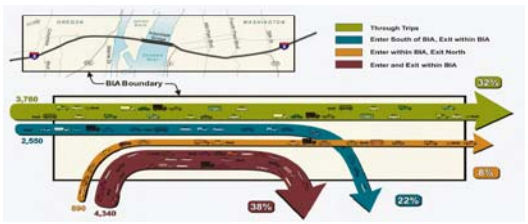
B. Number of Auxiliary Lanes

- Closely spaced interchanges and high volumes of traffic entering and exiting the corridor complicate operations and design.



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Number of auxiliary lanes recommendation and decision

- Additional study during summer 2010 through Integrated Project Staff (IPS) and Project Sponsors Council (PSC) and included 8, 10, and 12 lane scenarios.
- Recommendation for three through lanes and two auxiliary lanes across the bridge.
- Results in a narrower bridge section and two fewer lanes than studied in DEIS.

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Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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C. Impact mitigation and community enhancement

DEIS and FEIS include information in the following topic areas related to human health

- Air Quality
- Noise and Vibration
- Land Use and Economics
- Neighborhoods
- Pedestrians and Bicycles
- Traffic and Transit
- Visual and Aesthetics
- Parks and Recreation
- Public Services
- Environmental Justice
- Hazardous Materials
- Water Quality

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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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Conclusions related to health impacts

- **Project increases opportunities for physical activity:**
  - Improved pedestrian and bicycle facilities
  - Transit Oriented Development
- **Noise impact from highway traffic will be lower than no-build due to mitigation, including sound walls. All light rail transit noise can be mitigated.**
- **Currently, all runoff from river crossing and much of I-5 is untreated. Project will treat all runoff from river crossing plus much of I-5.**
- **All criteria air pollutants and mobile source air toxins will be lower in 2030 than today. Long-term mitigation for air quality is not proposed.**

Community enhancements

- **Project will provide multi-modal transportation improvements and enhancements for the community within the project area**
- **Example community benefits include:**
  - Light rail transit in the corridor
  - A safer system for all users
  - Local street system improvements, including Tomahawk Island Dr.
  - Separate arterial bridge from north Portland to Hayden Island
  - Public art component of transit element
  - Significantly improved bicycle and pedestrian pathways and connections

D. Transportation Demand Management

TDM Working Group developed a comprehensive program with:

- **Pre-construction activities – to have it ready when needed**
- **Construction phase – focused on "saving vehicle trips" in the corridor to reduce possible capacity losses resulting from construction**
- **Post-construction phase – to be implemented by the Mobility Council**

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Columbia River CROSSING

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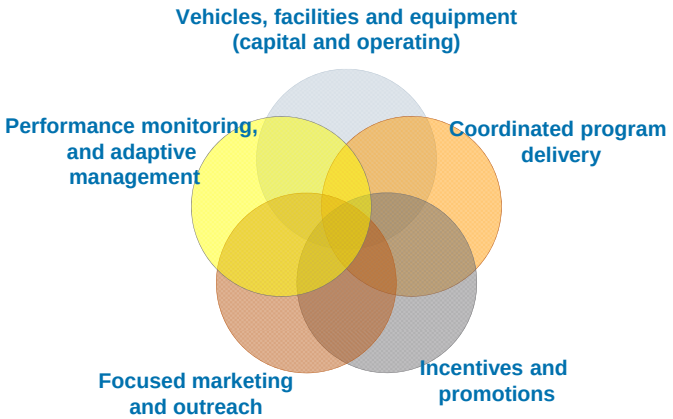
Elements of the TDM program



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Columbia River CROSSING

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Implementation of construction phase TDM

- **Actual targets for "vehicle trips saved" for:**
  - Telecommuting and flexible schedules
  - Vanpooling, carpooling, and transit
  - Bicycles and pedestrians
- **One-Time Capital Programs**
  - Buses for additional service and minor transit facility improvements
  - Additional vans beyond the WVIP funding level

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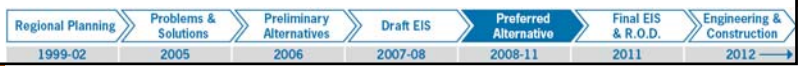

Implementation of construction phase TDM

- **Operating Expenses**
  - Expanded employer outreach and focused marketing
  - Expanded area-wide and corridor marketing and promotions (e.g. Drive Less / Save More, Southbound Solutions)
  - Short-term incentives for vanpool start-ups
  - Operating costs for higher frequency local bus service connecting to MAX
  - Monitoring and adaptive management costs

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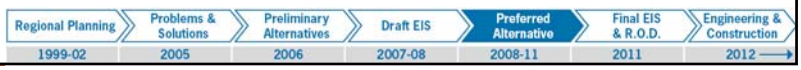

Post-construction TDM programs

- **A post-construction TDM program can adapt to the new transportation environment (LRT and other facilities) to help extend the life of the entire transportation system.**
- **The Integrated Project Staff developed scenarios with high targets of non-single occupant vehicle modal use.**

2030 LPA PM Peak 4-Hours I-5 NB without Enhanced TDM Program					
	Vehicles	% of Vehicles	Occupancy	Persons	% of Persons
Drive Alone	23,815	77%	1.0	23,815	54.3%
Carpool	5,025	16%	2.2	10,925	24.9%
Carpool >4 / Vanpools	90	0%	5.0	450	1.0%
Trucks	1,900	6%	1.0	1,900	4.3%
Vehicles(subtotal)	**30,830**	**99.9%**	**1.20**	**37,090**	**84.5%**
Buses	25	0%	51.0	1,275	2.9%
LRT				4,750	10.8%
Transit (subtotal)	**25**	**0.1%**		**6,025**	**13.7%**
Pedestrians				80	0.2%
Bicyclists				700	1.6%
Ped/Bike (subtotal)				**780**	**1.8%**
Total River Crossings	**30,855**	**100.0%**		**43,895**	**100.0%**

Columbia River CROSSING

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Post-construction TDM programs

- **The Mobility Council could direct the post-construction TDM program to achieve desired results based on the framework developed by the Performance Measures Advisory Group (PMAG).**
- **PMAG's goal areas covered:**
  - System access, mobility, and reliability
  - Financial responsibility and asset management
  - Climate, energy security, and health
  - Safety and security
  - Economic vitality
  - Land use

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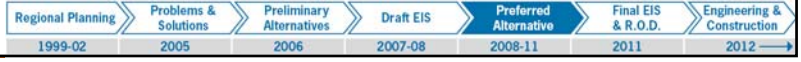
Columbia River CROSSING



Post-construction TDM programs

- **PMAG's identified a need to coordinate:**
  - Traditional transportation actions under state DOT jurisdiction (tolls, freeway operations)
  - Other agencies' transportation actions (arterial operations, transit fares)
  - Other agencies' indirect policies and actions (land use, parking policies)

E. Finance plan

Conceptual Financing Plan presented to PSC in January 2010

New Starts Assumes full FTA New Starts request granted. CRC may fulfill FTA local match requirements using local highway expenditures, per Congressional action.	**$850 million**
Projects of National Significance Additional funding above and beyond existing allocations. Assumed likely based on scope of CRC project and historical success in securing Federal discretionary funding.	**$400 million**
Additional WSDOT/ODOT Funding Assumes additional funding generated from both DOTs.	**$900 million**
Toll Bond Proceeds	**$1.1 - $1.4 billion**

Status of finance plan activities

- **Revised project cost estimates are being prepared.**
- **Updated financial element for Final EIS is being prepared.**
- **At the direction of the Oregon governor, the state treasurer is currently conducting an independent review.**
- **An investment grade study will be conducted prior to bonding.**

F. Capacity considerations, induced demand and greenhouse gases

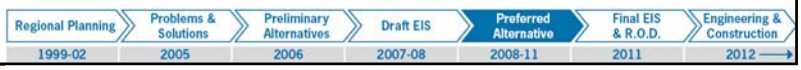
Capacity Considerations and Induced Demand

- Strategies to enhance mobility and reduce traffic volumes were developed by the Transportation Demand Management Working Group, the Performance Measures Advisory Group and Integrated Project Staff (IPS).
- The Travel Demand Expert Review Panel concluded the project would have a low impact to induce growth.
- Metro conducted a quantitative study using Metroscope and concluded the project would have negligible impact on population and employment growth in Clark County.

Capacity considerations, induced demand and greenhouse gases

Greenhouse Gases

- DEIS analysis showed that the project would reduce GHG emissions relative to no-build.
  - Used Metro's model results
- Greenhouse Gas Emissions Analysis Expert Review Panel, convened in 2008, validated methodology and findings in DEIS and recommended refinements.
- Updated analysis using latest EPA model showed even greater emission reductions than previously estimated.
- The GHG and Climate Change analysis for the DEIS was recognized with a 2009 NEPA Excellence Award from National Association of Environmental Professionals.



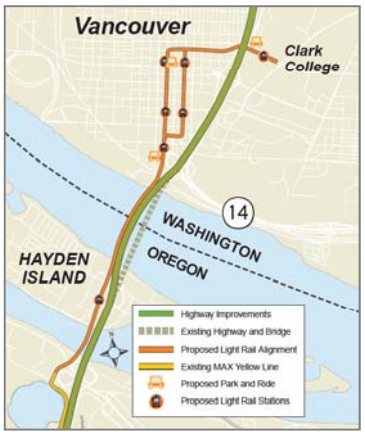
G. Preservation of freight access

- **The Freight Working Group has been a key participant, especially with regard to the Marine Drive interchange.**
- **A flyover ramp to further improve freight access could be constructed later at the Marine Drive interchange.**

- **An arterial bridge connect to Hayden Island, instead of additional ramp connections to I-5, frees capacity for freight movements at the Marine Drive and Hayden Island interchanges.**
- **Interchange Area Management Plans for Marine Drive and Hayden Island interchanges use access management strategies and land use tools to help protect the interchanges.**

H. Light rail transit

- Light rail transit is being advanced as a key element of the project.
- The terminus selected is near Clark College.
- The route through Vancouver and station locations have been identified and are included in the project.
- Three park-and-ride facilities have been identified for Vancouver and are included in the project.



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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
1999-02	2005	2006	2007-08	2008-11	2011	2012 ⟶

I. Bicycle and pedestrian facilities

- The project is seeking to implement a “world class” facility.
- The Pedestrian and Bicycle Advisory Committee helped with all aspects and recommended developing a safety and security plan.
- The width on the main span will be greater than other crossings in the region and far exceed minimum standards.

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I. Bicycle and pedestrian facilities

- Capacity is calculated to be more than adequate for predicted use.
- Width, grade and other features will meet or exceed design standards.
- Connections will be provided to north Portland, Hayden Island and Vancouver.
- Special efforts are being made to minimize at-grade conflicts with arterial streets and improve upon the existing, circuitous routing.

PBAC Recommendations: Maintenance and Security Program Summary

- Reliable funding for maintenance and security
- Programming of activity space for “eyes on the pathway”
- Visible and regular monitoring by security personnel with cameras, and call boxes
- Appropriate lighting
- Posting of laws and ordinances

PBAC Recommendations: Maintenance and Security Program Summary

- **Advance notification of maintenance closures and detours**
- **Citizen and volunteer participation for maintenance, operations and programming**

PBAC's recommendation was endorsed by PSC with commitment by the DOTs.

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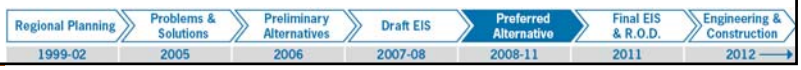

J. Urban development impacts at redesigned interchanges

- **The Marine Drive Stakeholder Group and Portland Working Group have been key participants in redesign efforts.**
- **Several options were explored for the Marine Drive interchange with emphasis on access to and preservation of Expo Center and creation of parcels for beneficial uses.**
- **The Hayden Island interchange was redesigned to further the Hayden Island Plan, to support transit, and implement a "main street" concept for Tomahawk Island Drive.**

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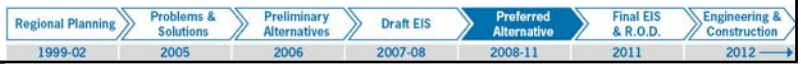

J. Urban development impacts at redesigned interchanges

- The Hayden Island and Marine Drive interchange designs are matched with the arterial bridge connecting Hayden Island and north Portland.
- Refinement continues on design details for several interchanges and treatment at ramp terminals.

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Columbia River CROSSING

Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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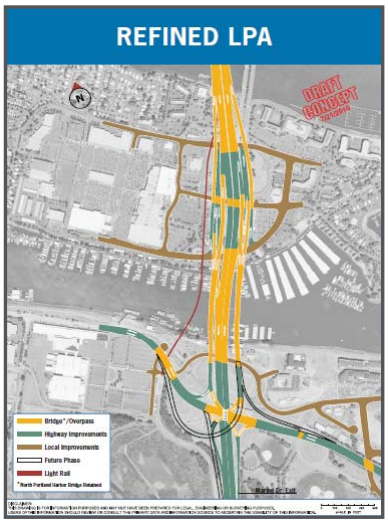
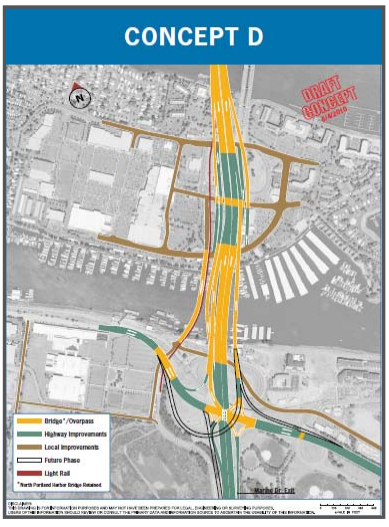
Hayden Island interchange examples – original LPA vs Concept D





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Marine Drive interchange examples – original LPA vs current design

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K. Bridge design

- The project has utilized many groups including the Urban Design Advisory Group (UDAG), a Sustainability Working Group, and Hayden Island Design Group.
- UDAG's design guidelines are being developed into "architectural standards" for the project.
- Beginning in November 2010, the Bridge Review Panel reviewed project constraints (marine and aviation) and the bridge type.
- The Bridge Review Panel identified three bridge types more suitable than the open web truss design that had been advanced.
- The governors of Oregon and Washington selected a bridge type on April 25, 2011 and directed that the project add a bridge architect to the project.

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Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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Bridge design

The Governors' decision to select the bridge truss type was based on:

- Reducing and eliminating risks to schedule and budget
- Affordability
- Securing funding

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Status of Metro's LPA conditions

- Resolved or will be resolved with FEIS/ROD
- On track, but requires additional actions/decisions beyond FEIS/ROD
- Unresolved

A. Tolling
B. Number of Auxiliary Lanes
C. Impact Mitigation and Community Enhancement
D. Demand Management
E. Financing Plan
F. Capacity Considerations, Induced Demand and Greenhouse Gases
G. Preservation of Freight Access
H. Light Rail
I. Design of Bicycle and Pedestrian Facilities
J. Urban Development Impacts at Redesigned Interchanges
K. Bridge Design

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Regional Planning	Problems & Solutions	Preliminary Alternatives	Draft EIS	Preferred Alternative	Final EIS & R.O.D.	Engineering & Construction
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Next Steps

Oregon Department of Transportation

Washington State Department of Transportation

Federal Transit Administration • Federal Highway Administration
City of Vancouver • City of Portland • SW Washington Regional Transportation Council • Metro • C-TRAN • TriMet

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Project schedule

- Update cost estimates
- Refine financial plan
- Land use final order
- Legislative review
- Final Environmental Impact Statement
- Federal Record of Decision
- Property acquisition process begins
- Final Design Phase
- Legislative review
- Begin construction
- I-5 Bridge opens

PUBLIC OUTREACH

2011 2012 2013 2014 2015 2016 2017 2018

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FEIS topics

- Interstate Travel Time, Safety
- Local streets
- Transit System
- Pedestrians and bicycles
- Land use and economics
- Property acquisitions
- Neighborhoods
- Environmental justice
- Aviation and navigation
- Visual resources and aesthetics
- Air quality and greenhouse gasses
- Noise and vibration
- Ecosystems
- Water resources and wetlands
- Geology and soils
- Hazardous materials
- Historical and archaeological resources
- Parks and recreation areas
- Secondary and cumulative effects

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How is the FEIS different from DEIS?

- LPA adopted and design refined to a higher level of detail
- More detail on environmental impacts and mitigation
- Mitigation concepts are commitments
- Comment responses
- Updated data and analysis
  - Detailed impacts to threatened/endangered salmon runs
  - Specific demographics of the displacements
  - Information about archeological sites

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How was public / agency input used to develop the FEIS information?

- Comments about Hayden Island resulted in a public process where Option A in the FEIS was chosen
- Concerns about the open web box girder design resulted in the Bridge Review Panel and recommendations
- Transit alignments in downtown Vancouver were selected through the Vancouver Working Group
- Minimizing salmon impacts through drilled shaft construction techniques
- Marine Drive interchange was refined through the Marine Drive Stakeholders group

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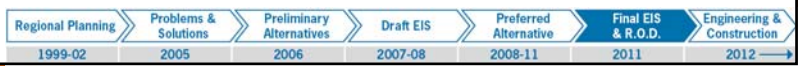

Next steps in 2011

- Continued coordination with local agency project sponsors
  - FEIS
  - Land Use Final Order
- Coordination with both governors, state legislatures and federal partners on finance plan
- Continued bridge design and engineering work
- Final EIS and Record of Decision expected in 2011

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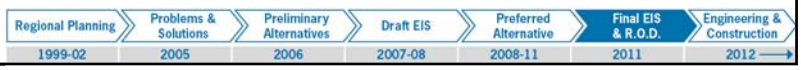

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