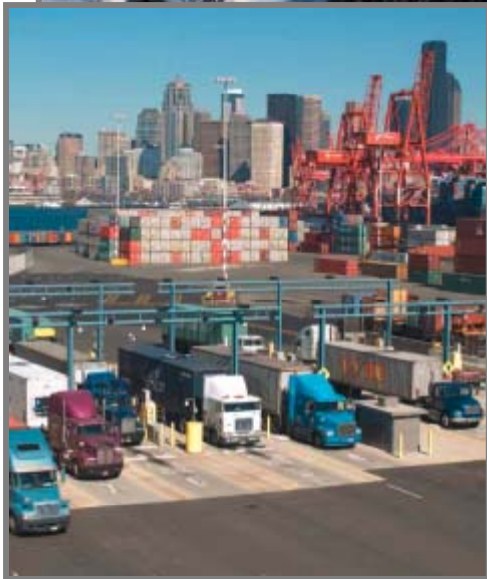


# A long-term, comprehensive solution

October 15, 2012



# Washington State Freight & Trade



- Washington is the most trade-reliant state in the nation
- Nearly 740,000 workers depend on exports, and 161,000 workers depend on imports
- 1 in 4 jobs are tied to trade

\*Information and image courtesy of the Port of Vancouver

# Trade/Transportation and Oregon Jobs

- Oregon has the 5<sup>th</sup> largest export-supported job base in the U.S.
- 1 in 5 Oregon jobs are trade-related
- For every \$1 million in export sales lost, Oregon loses 10 jobs

\*Information and image courtesy of the Port of Portland



# Sample of businesses that depend on network



\*Information and image courtesy of the Port of Portland

# Project costs and funding



# Project construction cost estimates and fund sources



Oregon Roadway and Interchanges	Cost	Funding Source	Columbia River Bridge and Approaches	Cost	Funding Source	Light Rail Transit Extension	Cost	Funding Source	Washington Roadway and Interchanges	Cost	Funding Source
Oregon Roadway and Interchanges Total	\$595 million	State and/or federal funds	Columbia River Bridge and Approaches Total	\$1.2 billion	Tolls and State or Federal funds	Light Rail Transit Extension Total	\$850 million	FTA New Starts	Washington Roadway and Interchanges Total	\$435 million	State and/or Federal Funds

Total costs based on 2011 CEVP and assume a 95-foot bridge height = \$3.1 billion

Targeted Columbia River Crossing Funding Sources	Amount (billions)
FTA New Starts (light rail).....	\$0.85
FHWA.....	\$0.4
Tolls.....	\$0.9 - \$1.3
OR/WA.....	\$0.9
<b>TOTAL FUNDING SOURCES</b>	<b>\$3.05 - \$3.45</b>

# Governor's request to the CRC

- Alternatives to full build which include a smaller first phase foot print
- A smaller capital investment
- A smaller state investment for Oregon
- Maintain the project's purpose and need
- Engineering feasibility matched with kinds of funds available and tightening fiscal realities

# Phase 1 savings

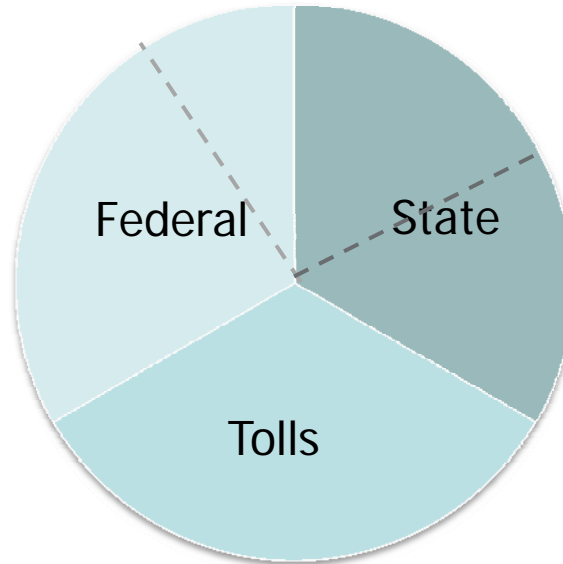
Project element	Cost savings
Local roads around Hayden Island interchange	\$10 million (approximate)
Bridge over N. Portland Harbor and Hayden Island bridges over Tomahawk Island Drive and Jantzen Drive	\$100 million (approximate)
Local roads around Marine Dr. interchange	\$20 million (approximate)
Eastside suspended bicycle/pedestrian path over N. Portland Harbor	\$15 million (approximate)
	<b>\$145 million (approximate)</b>



# Marine Dr. and Hayden Island – Phase 1

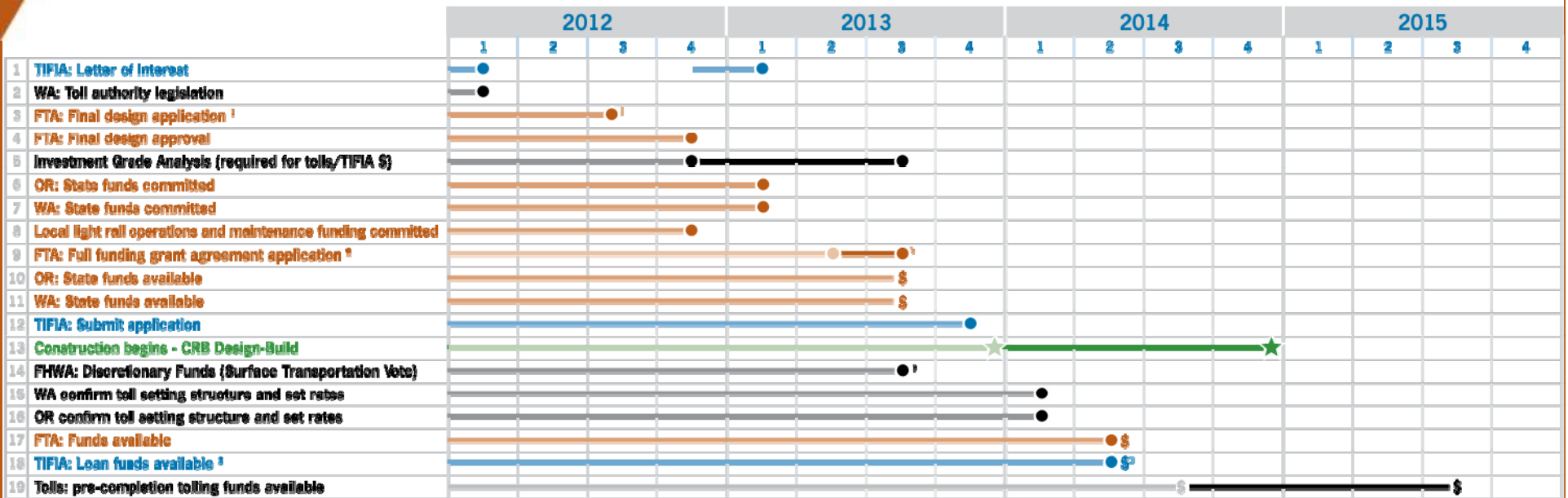


# Funding sources for CRC



Targeted Columbia River Crossing Funding Sources	Amount (billions)
FTA New Starts (light rail).....	\$0.85
FHWA.....	\$0.4
Tolls.....	\$0.9 - \$1.3
Washington .....	\$.45
Oregon.....	\$.45
<b>TOTAL FUNDING SOURCES</b>	<b>\$3.05-3.45</b>

# Funding timeline (subject to change)



## Estimated funding sources

Federal Transit .....	\$850 M
Federal Highway .....	\$400 M
Tolls * .....	\$900 M - \$ 1.3 B
OR/WA state funds (\$450/each) .....	\$900 M

\*TIFIA is a federal loan and credit program. Tolls are the revenue source for the loan. The federal backed loan program reduces coverage rate for tolls.

<sup>1</sup> Must have 50% non-FTA funds committed or budgeted. Tolling authority in 2012 expected to meet this requirement.

<sup>2</sup> Must have all funds authorized.

<sup>3</sup> TIFIA is typically the last funding source. Must have full finance plan and FTA approved.

## KEY

● ● ● ★ = Date Data    BLUE = TIFIA    BLACK = Tolling    ORANGE = FTA and State Funding

DWT: 09/11/13

# FTA requirements for FFGA

- **Commitment of 100% of the non-New Starts funding for the entire project**
  - WA and OR contribution both assumed at \$450m (if vote is required, it must have occurred)
  - Toll revenues assumed to be \$900-\$1.3b
  - TIFIA loan if pursued would need to be approved by USDOT
- **Commitment of all operating funding sources for transit**
- **Resolution of bridge height issue with receipt of Coast Guard permit**

# Bridge permitting



# Work to date and draft findings

- 1. Completed preliminary engineering analyses to assess technical feasibility, cost and impacts associated with vertical clearance alternatives of 95, 100, 105 and 110 ft. to avoid some impacts to users**
  - **Draft finding:** Adjustments up to 110 ft. appear to be technically feasible, with moderate cost increases and without significant additional environmental impacts
- 2. Completed extensive survey of potentially affected vessels**
  - **Draft finding:** Mid-level bridge appears to address navigation needs for all but a small number of river users

# Work to date and draft findings

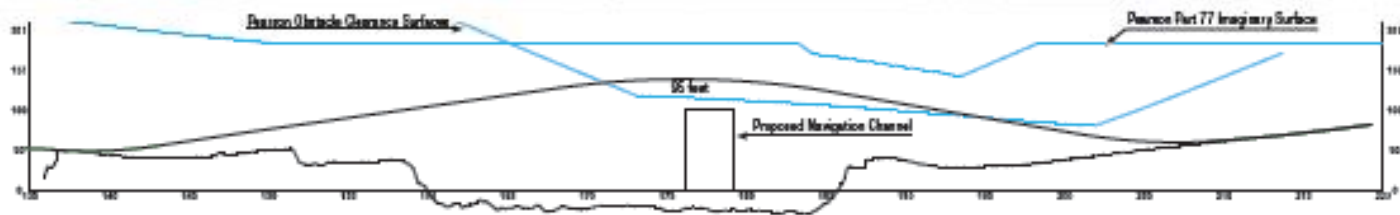
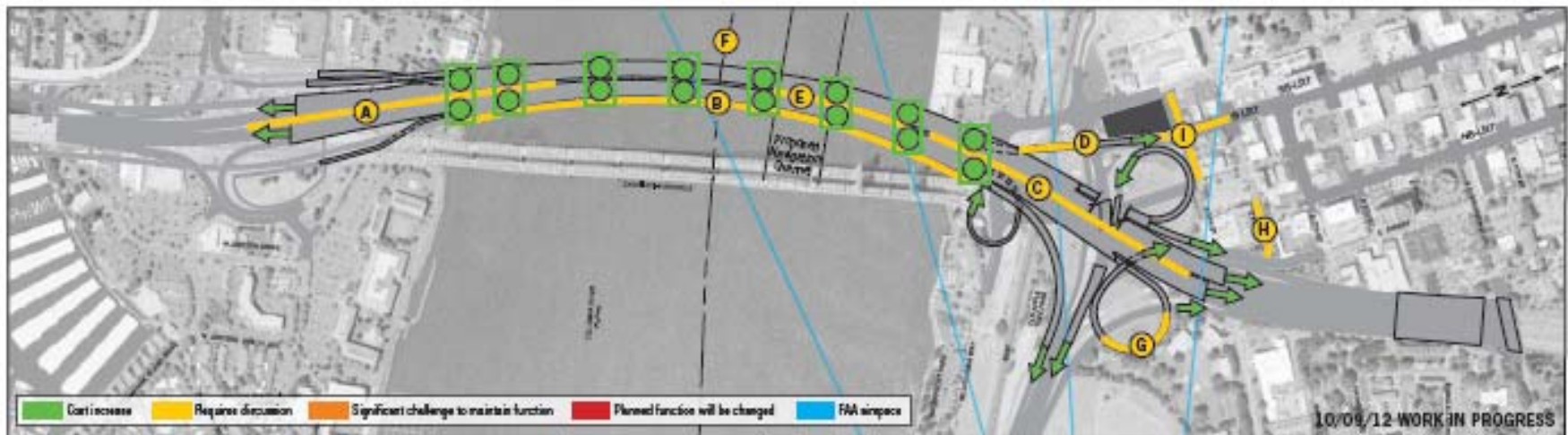
- 3. Inspected USACE dredge Yaquina and prepared conceptual mitigation plan for USACE review**
  - **Draft finding:** Conceptual mitigation plan appears to provide a cost-effective solution that would allow unimpeded travel under the new bridge
  
- 4. Completed preliminary analysis of future river user needs**
  - **Draft finding:** Anticipated future uses are generally consistent with existing types of vessels and clearance requirements

# Work to date and draft findings

5. **Completed preliminary assessment of technical feasibility and cost of adding a lift span to proposed deck truss**
  - **Draft finding:** Appears that an added lift span would result in structure of unprecedented complexity, increase construction cost by approx. \$250 million and require additional environmental evaluation
6. **Continue to conduct outreach to fabricators and property owners**

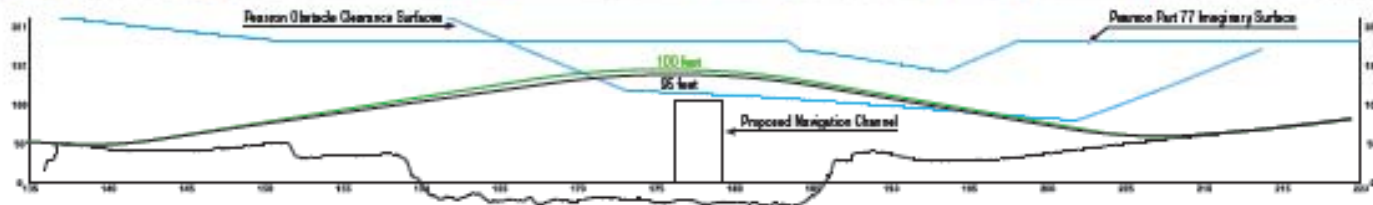
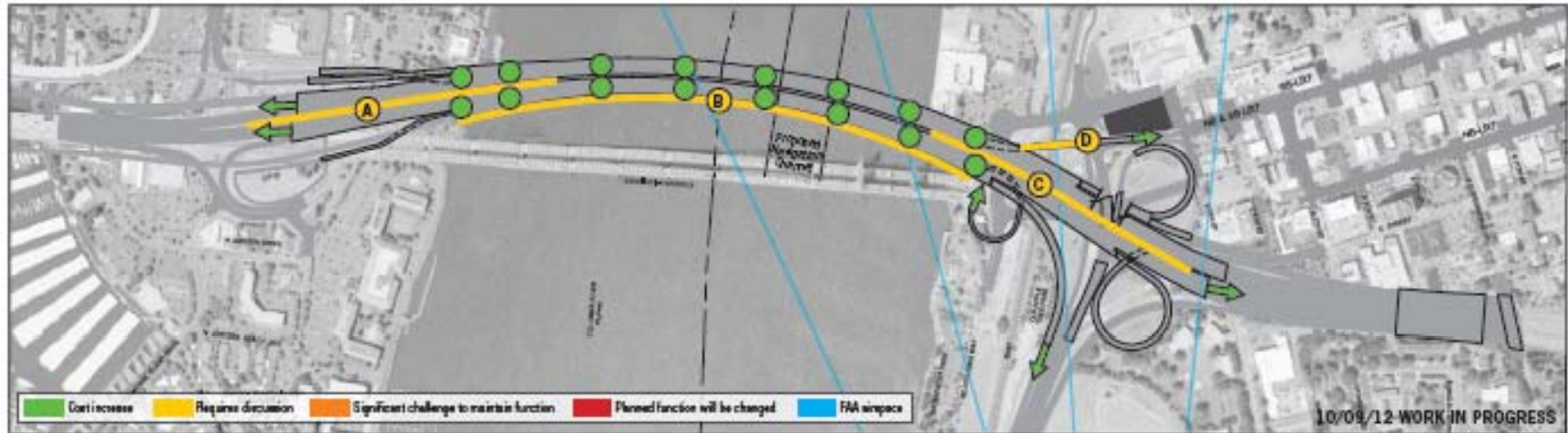


# Vertical clearance - affected areas



- |                              |                           |   |
|------------------------------|---------------------------|---|
| <b>A</b> Mainline grade      | <b>D</b> Transit grade    | <b>G</b> FAA airspace                   |
| <b>B</b> Traffic performance | <b>E</b> FAA airspace     | <b>H</b> 6th Street - I-5 South         |
| <b>C</b> Mainline grade      | <b>F</b> Foundation sizes | <b>I</b> Transit alignment and stations |

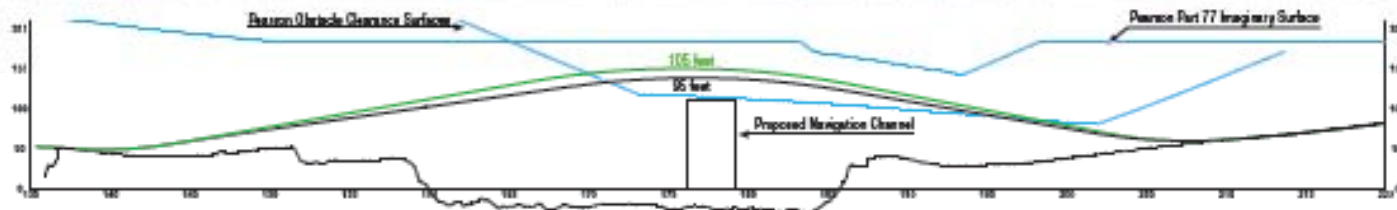
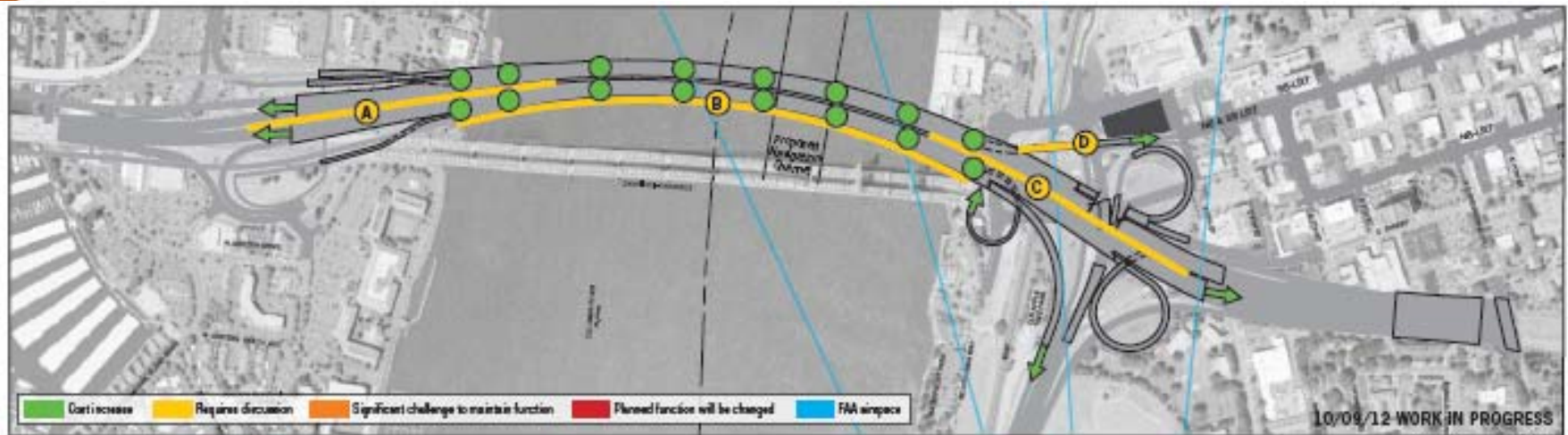
# Vertical clearance - 100 feet



\* Potential impacts at 15 ft over stage and 30 ft air gap. Some of the vessels would pass at a lower over stage and/or with a smaller air gap. For this illustration each tubular was represented by 1 vessel.

		Hayden Island	Main Crossing	Vancouver	Totals
Cost Increase over 95 feet (\$ millions)*	60%	5	2	6	13
Highway/Transit		<p><b>A</b> In Oregon the mainline grade increases to 3.16% from 2.83%. This would need a design exception for a grade above 3%.</p>	<p><b>B</b> More traffic analysis needed to address changes to traffic operations due to increased grades.</p>	<p><b>C</b> In Washington the mainline grade increases to 3.61% from 3.40%.</p> <p><b>D</b> Transit grade on Washington approach to 6% for an additional 120 feet.</p>	

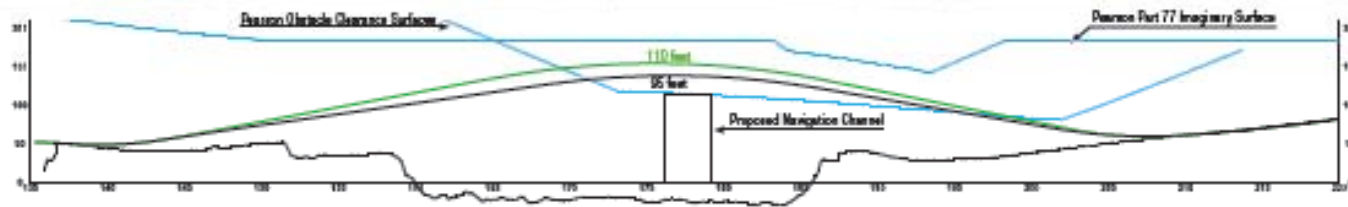
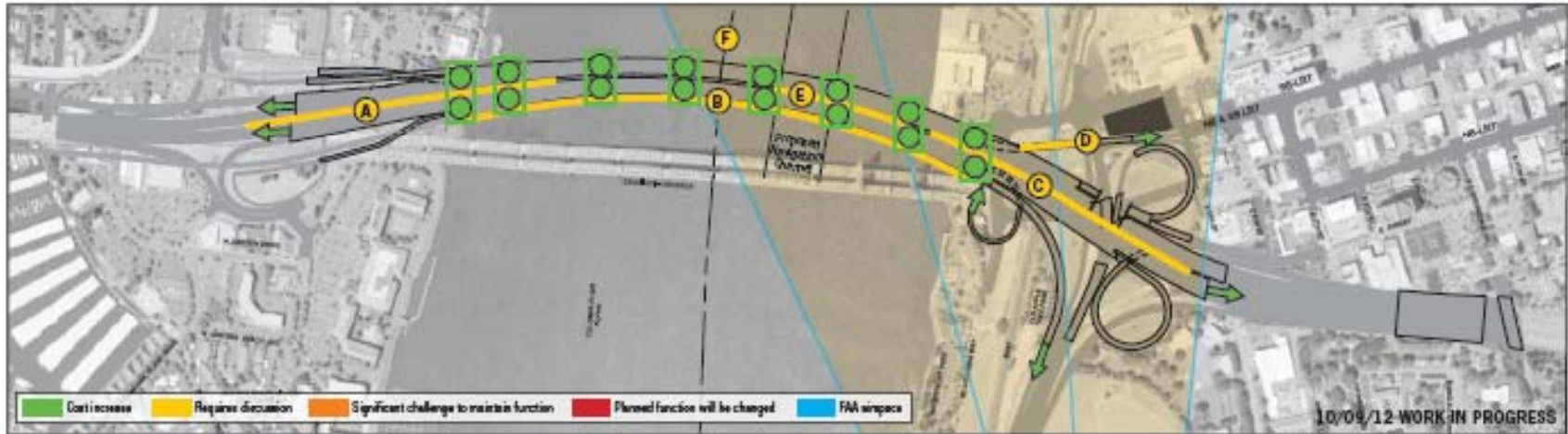
# Vertical clearance -105 feet



\* Potential impacts at 15 ft over stage and 10 ft air gap. Some of the vessels would pass at a lower over stage and/or with a smaller air gap. For this illustration each fabricator was represented by 1 vessel.

		Hayden Island	Main Crossing	Vancouver	Totals
Cost Increase over 95 feet (\$ millions)*	60%	9	3	10	22
Highway/Transit		<p><b>A</b> In Oregon the mainline grade increases to 3.48% from 2.83%. This would need a design exception for a grade above 3%.</p>	<p><b>B</b> More traffic analysis needed to address changes to traffic operations due to increased grades.</p>	<p><b>C</b> In Washington the mainline grade increases to 3.81% from 3.40%.</p> <p><b>D</b> Transit grade on Washington approach to 6% for an additional 120 feet.</p>	

# Vertical clearance – 110 feet



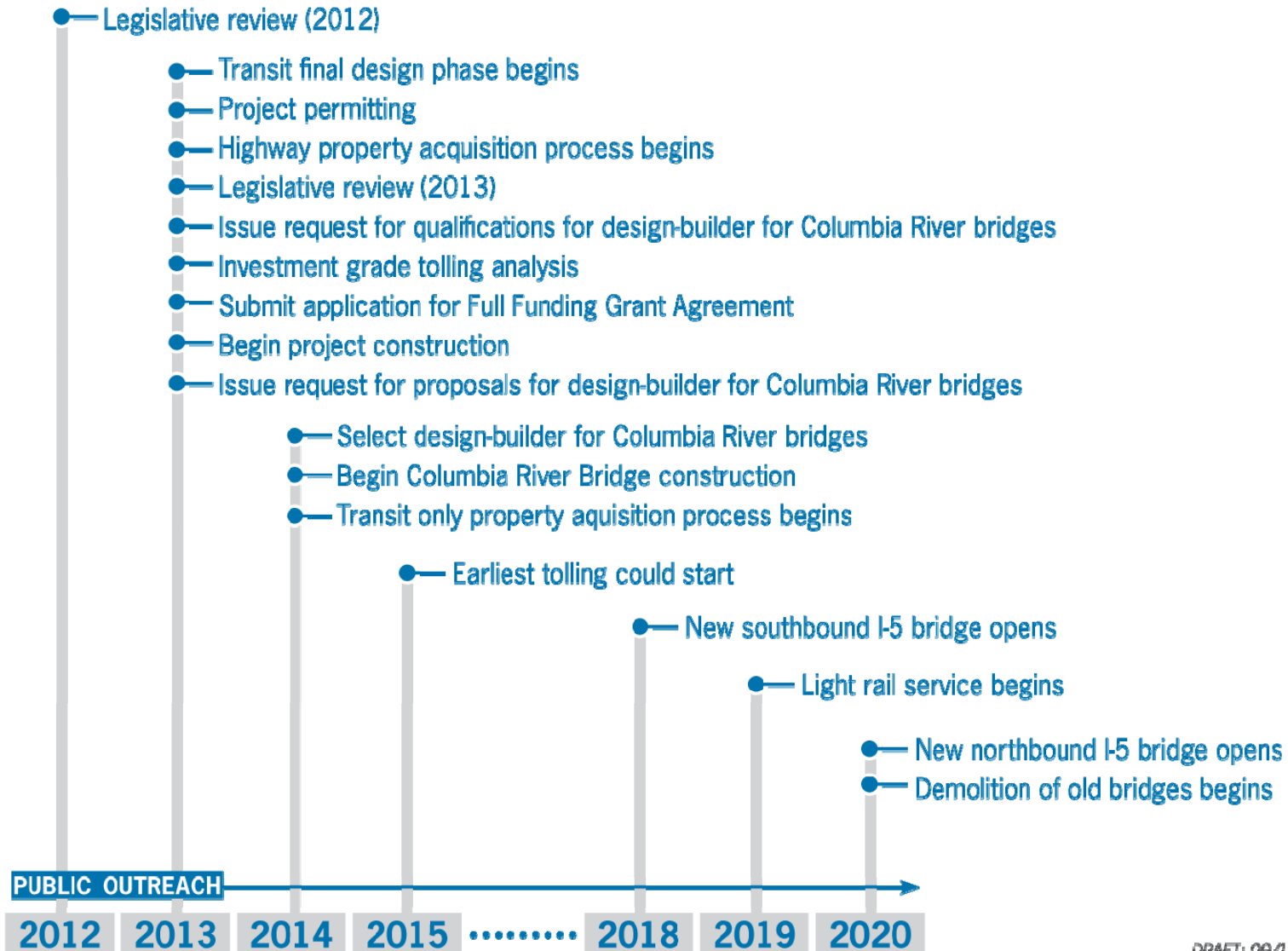
\* Potential impacts at 16 ft over stage and 10 ft air gap. Some of the vessels would pass at a lower over stage and/or with a smaller air gap. For this illustration each fabricator was represented by 1 vessel.

		Hayden Island	Main Crossing	Vancouver	Totals
Cost Increase over 95 feet (\$ millions)*	60%	9	17	10	36
Highway/Transit	*Based on 2011 CEV does not include mitigation costs.	<p><b>A</b> In Oregon the mainline grade increases to 3.73% from 2.83%. This would need a design exception for a grade above 3%.</p>	<p><b>B</b> More traffic analysis needed to address changes to traffic operations due to increased grades.</p> <p><b>E</b> Top of roadway deck at centerline is 2' below FAA surface.</p> <p><b>F</b> Foundation sizes may increase, however, they are still consistent with FBS.</p>	<p><b>C</b> In Washington the mainline grade increases to 3.99% from 3.40%.</p> <p><b>D</b> Transit grade on Washington approach is 6% for an additional 130 feet</p>	

# Next steps



# Project development schedule



DRAFT: 09/18/12

# Columbia River CROSSING

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 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