

PUBLIC COMMENTS FOR IBR PROGRAM COMMUNITY ADVISORY GROUP – APRIL 28TH, 2021 MEETING

Received between March 24 – April 26, 2021

Robert Liberty

4/20/21

Attachment included

** ADA compliant versions of the attachments can be made available upon request*

Bob Ortblad

4/22/21

An Immersed Tube Tunnel UNDER is better than a Bridge OVER the Columbia River.

The United States Coast Guard will require a new vertical and horizontal bridge clearance permit. An immersed tube tunnel (ITT) has no clearance problems.

Sixty-two years ago British Columbia built an ITT under the 38-foot deep ship-channel of the Fraser River. A Columbia River ITT will be less difficult to build with a barge-channel of only 17-foot deep.

British Columbia is planning a new ITT that will include Vancouver's light rail SkyTrain. Light rail will be necessary for any new Columbia River crossing.

An ITT can be half as long as a bridge. An ITT needs to go downing only 50 feet, a bridge needs to go up over 125 feet. This will allow flatter and shorter ITT grades that are better for light rail, truck traffic, bicycles, and pedestrians.

An ITT will create more "Safe Local Jobs" than a steel truss bridge. The Northwest is famous for casting large concrete pontoons for Lake Washington and Hood Canal.

Bob Ortblad MSCE, MBA

Washington Business Alliance

Attachment included

** ADA compliant versions of the attachments can be made available upon request*

February 9, 2021

Robert Liberty

4/26/21

Dear Community Advisory Group,

Attached for your consideration are four documents:

1. "What's in a name?"
2. Draft Purpose and Need Statement for the Interstate Bridge Replacement project based on the assumption the project is actually a proposal to replace the two existing bridges over the Columbia River. It has the advantage of brevity; it is only 207 words long.
3. Draft Purpose and Need statement requiring quantification of proposed benefits, consideration of the actual project impact area and other improvements.
4. Testimony provided to the EAG offering a definition of "equity" and ways of evaluating the equity impacts from the project.

By the way, I assume you know that Administrator Johnson announced to the EAG last week that only he, and he alone, has the responsibility and authority to review and approve the EAG's definition of equity. Is that your understanding as well?

I would appreciate confirmation that this message and the attachments have been received.

Respectfully submitted,

Robert Liberty

Attachment included

** ADA compliant versions of the attachments can be made available upon request*

What's in a name?

The “Interstate Bridge Replacement” Project:
The reality contradicts the name.

Testimony submitted by Robert Liberty, former Metro Council Member.

If you were trying to sell a used school bus to someone who was only interested in buying a bicycle, would you call the school bus a “mountain bike”?

Using a misleading name might make the sale, but would it be honest?

From the IBR website:



Interstate
BRIDGE
Replacement Program



From the IBR website:

Frequently Asked Questions

✓ Why do we need to replace the Interstate Bridge across the Columbia River?

> What are the current plans for replacing the old bridge?

> How will the new bridge be funded, and will it involve tolls?

Does this look like the “replacement” of the Interstate Bridges?

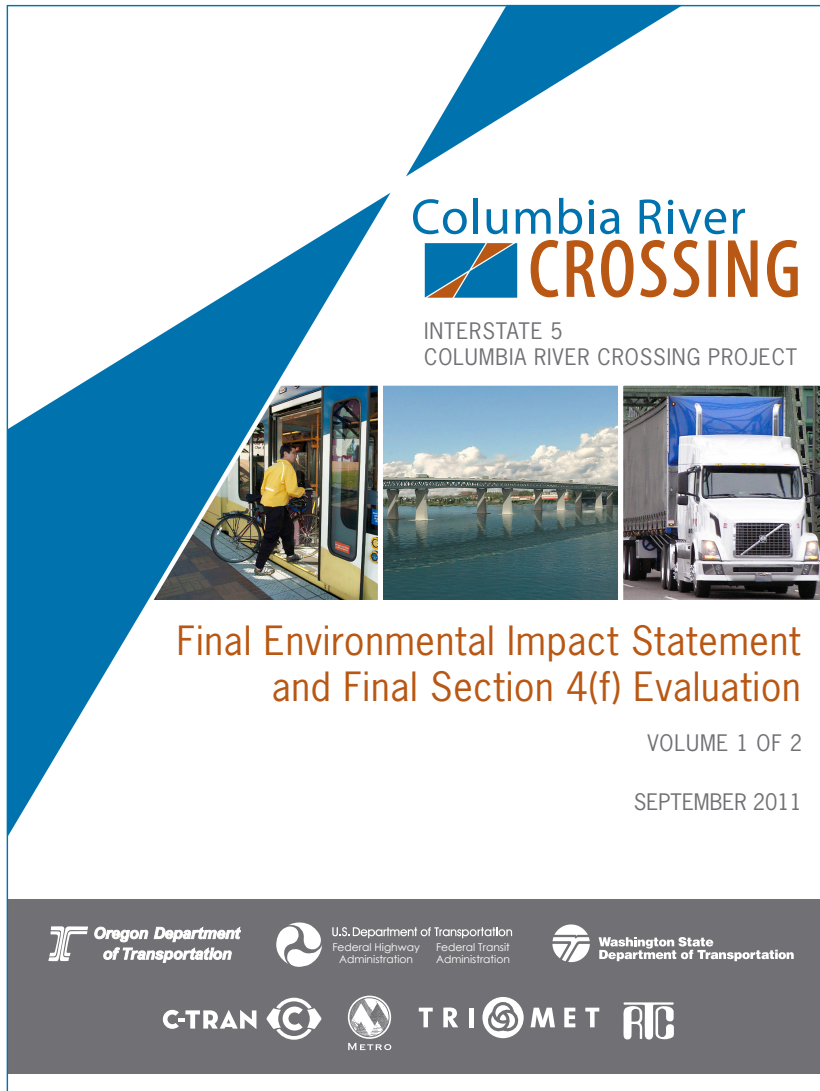
I-5 Bridges



I-5 Bridges



Hayden Island



The “Interstate Bridge Replacement” project leadership is insisting that local officials use the same 2011 “Record of Decision” as the Columbia River Crossing project and the same or very similar statement of purpose of need.

Why?

To prevent anything more than minor design changes to the approved CRC alternative while telling people the project is just about replacing two bridges.

Initial Version of CRC Preferred Alternative

| | |
|--|----------------------|
| • Demolish existing bridges | \$90 million |
| • New bridge over Columbia River | <u>\$900 million</u> |
| <i>Columbia River bridges subtotal</i> | <i>\$990 million</i> |
| • Oregon I-5 freeway investments Hayden Island rebuild and ramps, Marine Drive interchange | \$1 billion |
| • Extend light rail to Vancouver | \$850 million |
| • Washington I-5 freeway investments widening, interchanges at SR 500, Fourth Plain, Mill Plain, SR 14 | \$770 million |
| TOTAL | \$3.6 billion |

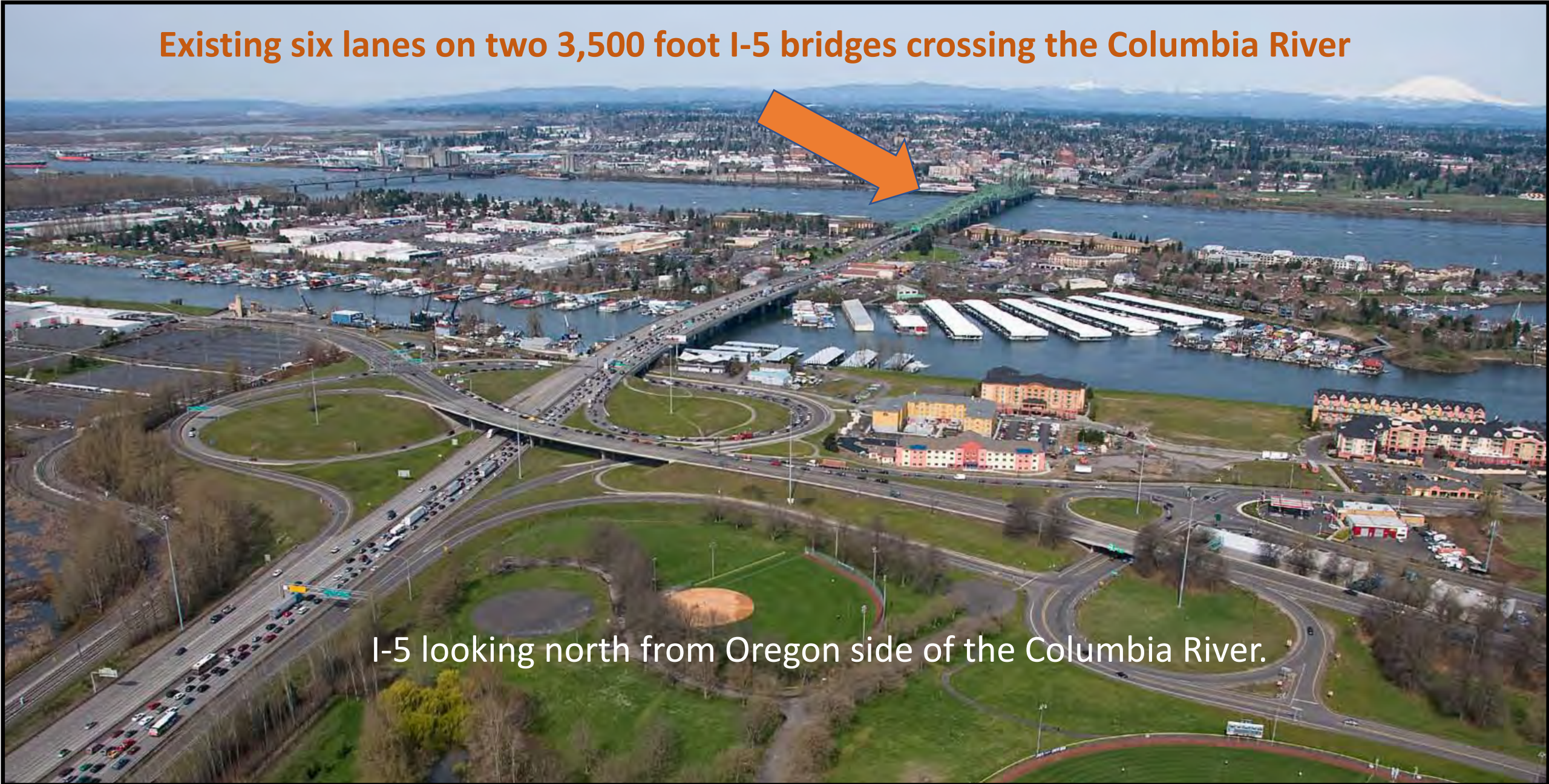
Out of the \$3.6 billion project cost, only **27.5%** would be spent on demolishing and replacing the existing I-5 bridges crossing the Columbia River.

About **49%** of the CRC project cost would have been spent on widening the freeway, building merge lanes and rebuilding freeway interchanges.

The I-5 bridges are about 3,500 feet long. The total CRC project length was about 5 miles (about 26,000 feet).

The maximum budget estimate for the new version of the CRC, the “Interstate Bridge Replacement” (IBR) is almost \$5 billion.

Existing six lanes on two 3,500 foot I-5 bridges crossing the Columbia River



I-5 looking north from Oregon side of the Columbia River.

16-lanes south and north of two new bridges (ten lanes total) over the Columbia River.



Rendering is for discussion purposes only and is subject to change. -08/04/08

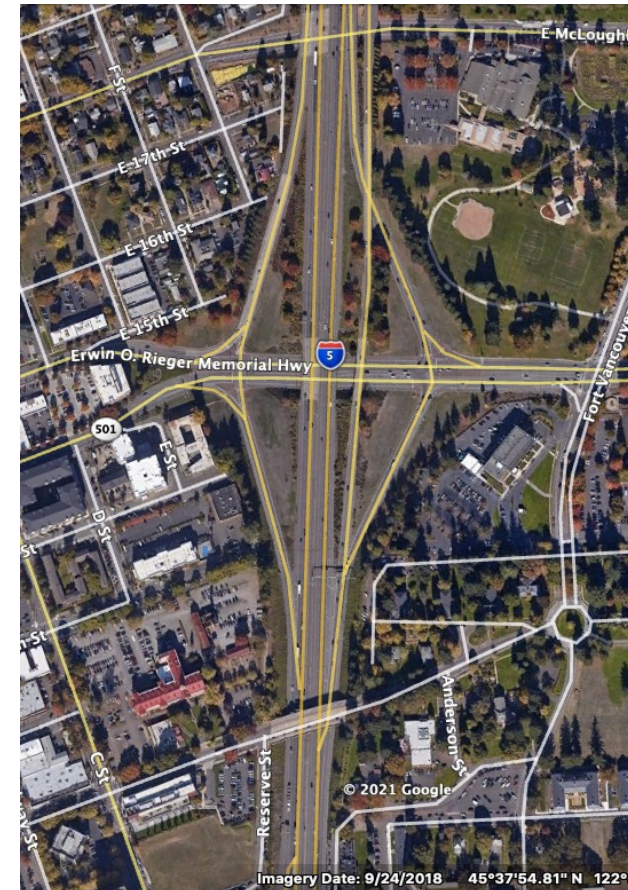
Does widening I-5 to 16-lanes at Evergreen Boulevard in Vancouver look like the “replacement” of the Interstate bridges?

Exhibit 2.2-13

Mill Plain Boulevard Interchange Improvements



Dimensions are approximate.



Today (2018)

What happened to “fixing our crumbling infrastructure”?

The \$1 billion proposed to be spent on interchange rebuilding, new freeway ramps and adding lanes to I-5 for the CRC (now the IBR) in Oregon, is about three times the amount of money needed to bring all National Highway System bridges in the entire state of Oregon into a “state of good repair.” See following documents.



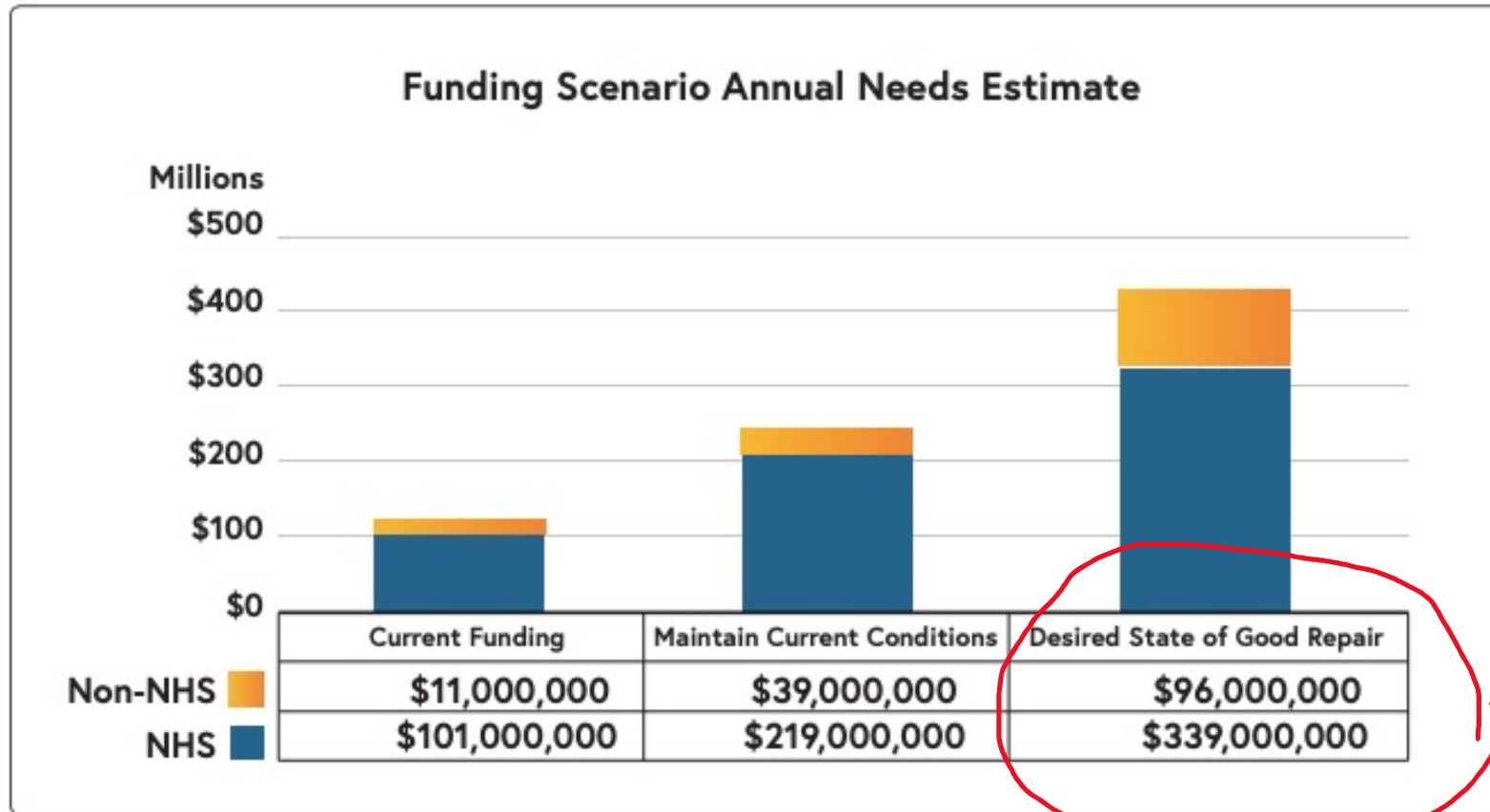
2020

**Bridge Condition Report
& Tunnel Data**

https://www.oregon.gov/odot/Bridge/Documents/Final_2020BridgeConditionReport.pdf

Bridge Funding Gap Analysis

Using 2018 data, an analysis was done to determine the funding needed to maintain current bridge conditions and to reach a Desired State of Good Repair (DSOGR) based upon the Oregon Transportation Commission Investment Strategy available at [OTC_Investment_Strategy](#). The results shown in the figure on the next page compare current funding with the funding needed to maintain or improve conditions.



Compare the \$339 million to bring all NHS bridges in Oregon into a state of good repair with the (2011) cost of \$1 billion for non-bridge freeway improvements in the CRC project area in Oregon and the \$990 million for demolishing and replacing the I-5 Bridges over the Columbia River, bridges which are **not** structurally deficient. (See next image.)

What about equity?

The project provides the most congestion relief to the commuters in Ridgefield, a lower-density, high income and less diverse community north of Vancouver. Why is shaving a few minutes off their commute worth \$billions? What about the delays for car and transit commuters in Aloha, Gresham or Gladstone? Since when is *widening* the freeway that destroyed the heart of Portland's African-American commercial district a way of redressing past injustices?

What about climate change?

Is widening I-5 to 16 lanes (including all the ramps, merge lanes, etc.) to facilitate more and faster driving to the outer suburbs in Washington State, these states' idea of responding to climate change, by making it worse?



Interstate **FREEWAY**

Expansion Megaproject

Sprawl, air pollution, climate change & benefits for the affluent, all for less than \$5 billion from your taxes and tolls.



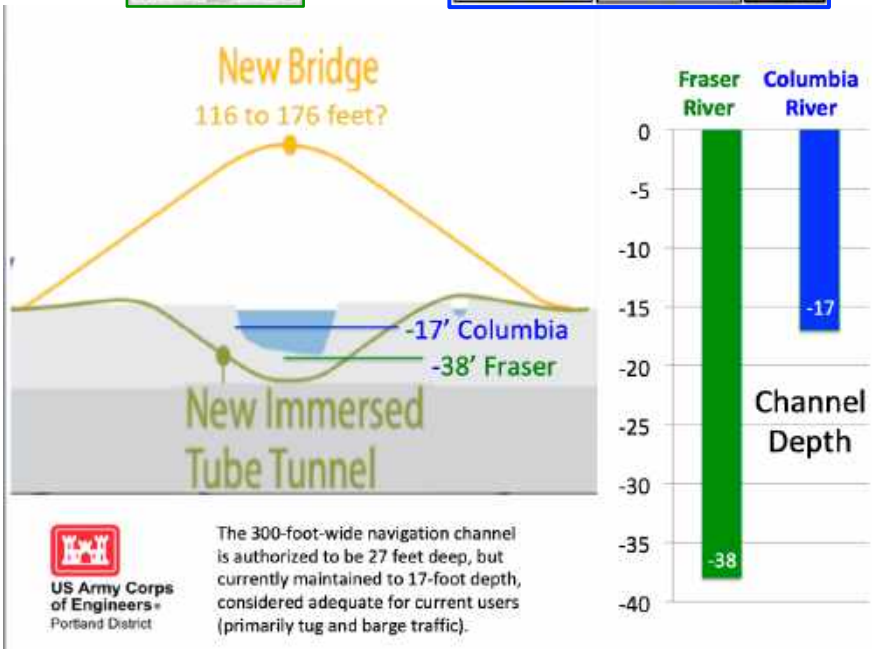
BRITISH COLUMBIA **George Massey Crossing**



Immersed Tube Tunnel Concept



YouTube <https://www.youtube.com/watch?v=8At88ti-yFA>



Safe Local Jobs

on land construction is twice as safe as over water construction

Fraser River – 38 foot channel

George Massey Tunnel - 1958



Trelleborg - How to build an immersed tunnel
<https://www.youtube.com/watch?v=2Xkyyc9PIQA>

Trip through Tingstad Tunnel, Gothenburg
<https://www.youtube.com/watch?v=KoEBbmeecd88>

Trip through Marieholm Tunnel before its Dec. 16 opening, Gothenburg
<https://www.youtube.com/watch?v=BT9s2Pf9Wms&feature=youtu.be>

Construction of the Marieholm Tunnel, Gothenburg
<https://www.youtube.com/watch?v=2kcAIBFCz8w&feature=youtu.be>

Launch of the Marieholm Tunnel elements, Gothenburg
<https://www.youtube.com/watch?v=JC4mRlgwXU0>

Elizabeth River Tunnel, Norfolk, VA.
<https://www.youtube.com/watch?v=NsNBdPFMuQY>

George Massey Crossing Tunnel Concept, Vancouver, Canada
<https://www.youtube.com/watch?v=8At88ti-yFA>

Immersion Tunnel Coatzacoalcos by Volker Construction International, Mexico
<https://www.youtube.com/watch?v=VFWkoZMja0k>

DERSA - Santos Guarujá Immersed Tunnel Project, Brazil
<https://www.youtube.com/watch?v=du8KZob7Pkw>

Busan-Geoje Fixed Link in South Korea
<https://www.youtube.com/watch?v=-aykpUulHJo>



**Immersed Tube Tunnel
better than a
New High Bridge**

What's in a name?

The “Interstate Bridge Replacement” Project:
The reality contradicts the name.

Testimony submitted by Robert Liberty, former Metro Council Member.

If you were trying to sell a used school bus to someone who was only interested in buying a bicycle, would you call the school bus a “mountain bike”?

Using a misleading name might make the sale, but would it be honest?

From the IBR website:



Interstate
BRIDGE
Replacement Program



From the IBR website:

Frequently Asked Questions

✓ Why do we need to replace the Interstate Bridge across the Columbia River?

> What are the current plans for replacing the old bridge?

> How will the new bridge be funded, and will it involve tolls?

Does this look like the “replacement” of the Interstate Bridges?

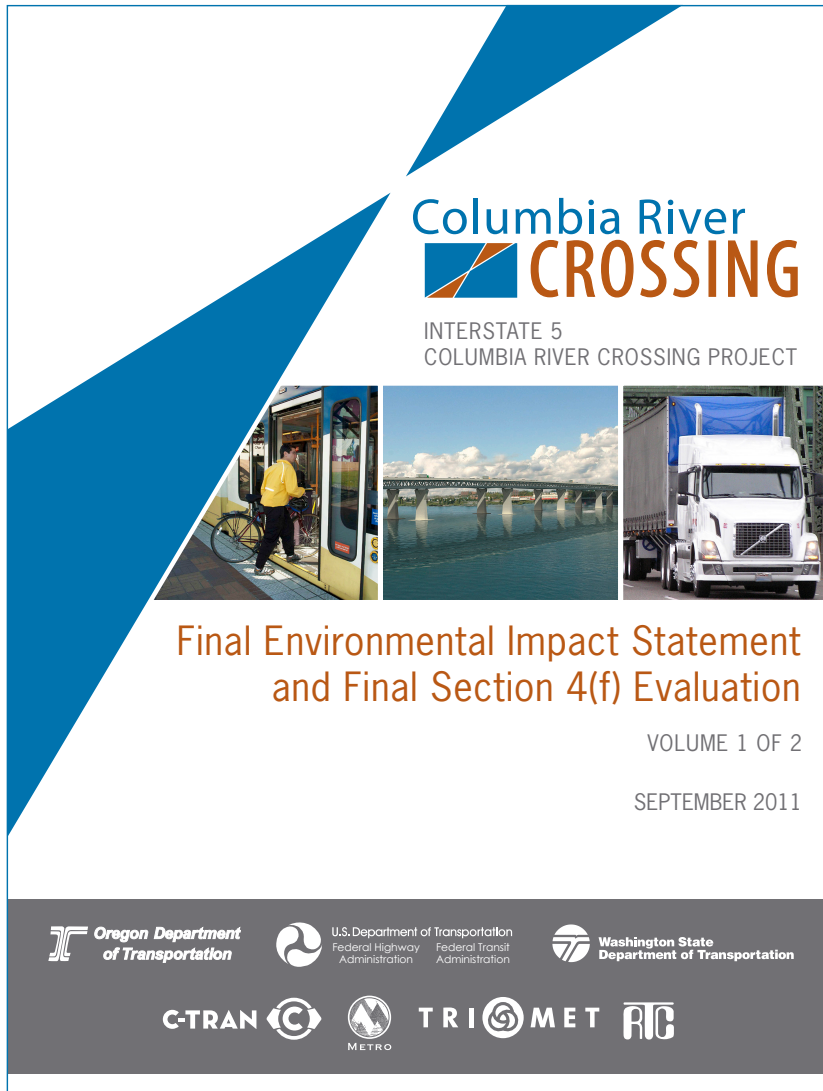
I-5 Bridges



I-5 Bridges



Hayden Island



The “Interstate Bridge Replacement” project leadership is insisting that local officials use the same 2011 “Record of Decision” as the Columbia River Crossing project and the same or very similar statement of purpose of need.

Why?

To prevent anything more than minor design changes to the approved CRC alternative while telling people the project is just about replacing two bridges.

Initial Version of CRC Preferred Alternative

| | |
|--|----------------------|
| • Demolish existing bridges | \$90 million |
| • New bridge over Columbia River | <u>\$900 million</u> |
| <i>Columbia River bridges subtotal</i> | <i>\$990 million</i> |
| • Oregon I-5 freeway investments Hayden Island rebuild and ramps, Marine Drive interchange | \$1 billion |
| • Extend light rail to Vancouver | \$850 million |
| • Washington I-5 freeway investments widening, interchanges at SR 500, Fourth Plain, Mill Plain, SR 14 | \$770 million |
| TOTAL | \$3.6 billion |

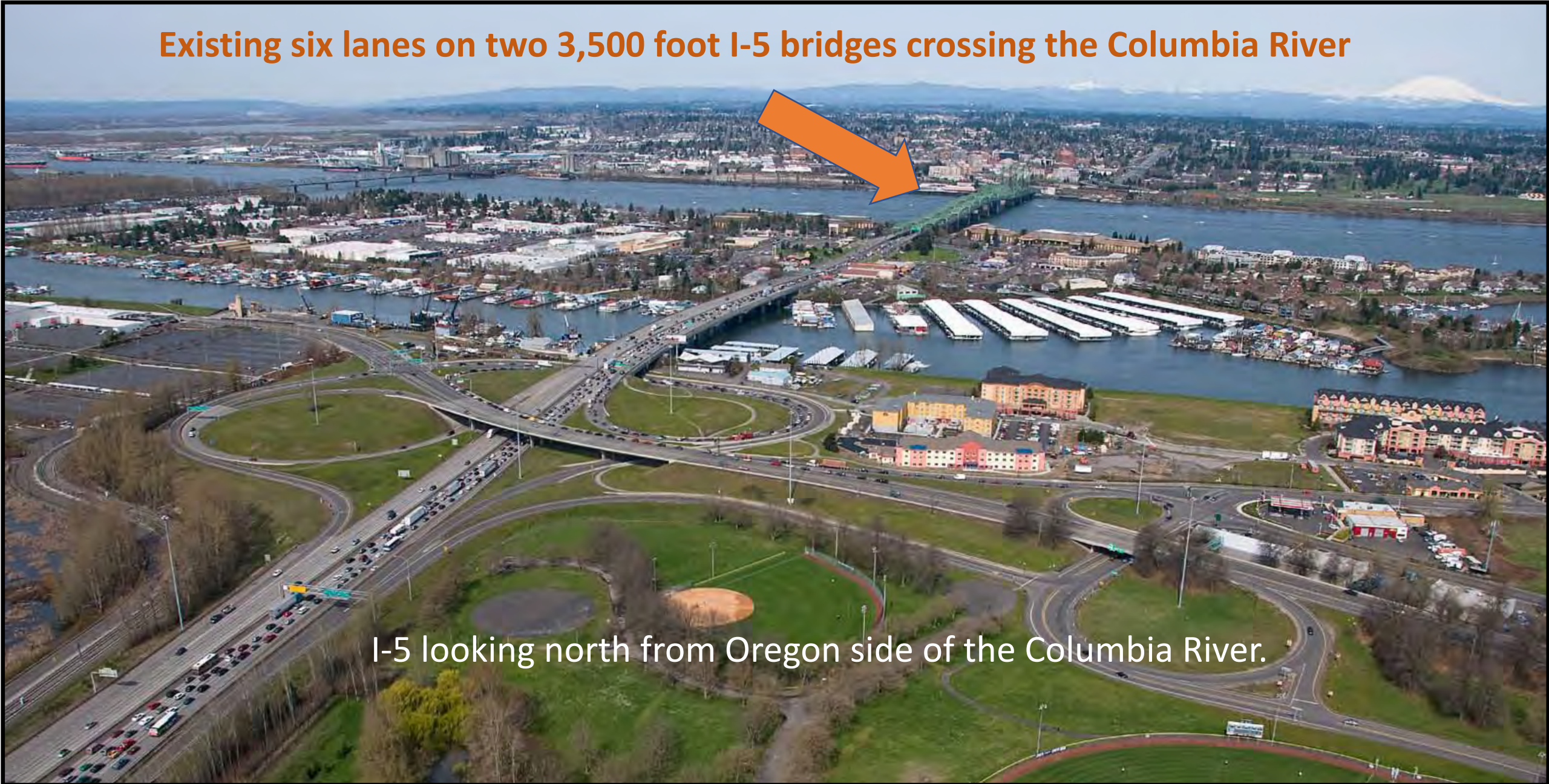
Out of the \$3.6 billion project cost, only **27.5%** would be spent on demolishing and replacing the existing I-5 bridges crossing the Columbia River.

About **49%** of the CRC project cost would have been spent on widening the freeway, building merge lanes and rebuilding freeway interchanges.

The I-5 bridges are about 3,500 feet long. The total CRC project length was about 5 miles (about 26,000 feet).

The maximum budget estimate for the new version of the CRC, the “Interstate Bridge Replacement” (IBR) is almost \$5 billion.

Existing six lanes on two 3,500 foot I-5 bridges crossing the Columbia River



I-5 looking north from Oregon side of the Columbia River.

16-lanes south and north of two new bridges (ten lanes total) over the Columbia River.



Rendering is for discussion purposes only and is subject to change. -08/04/08

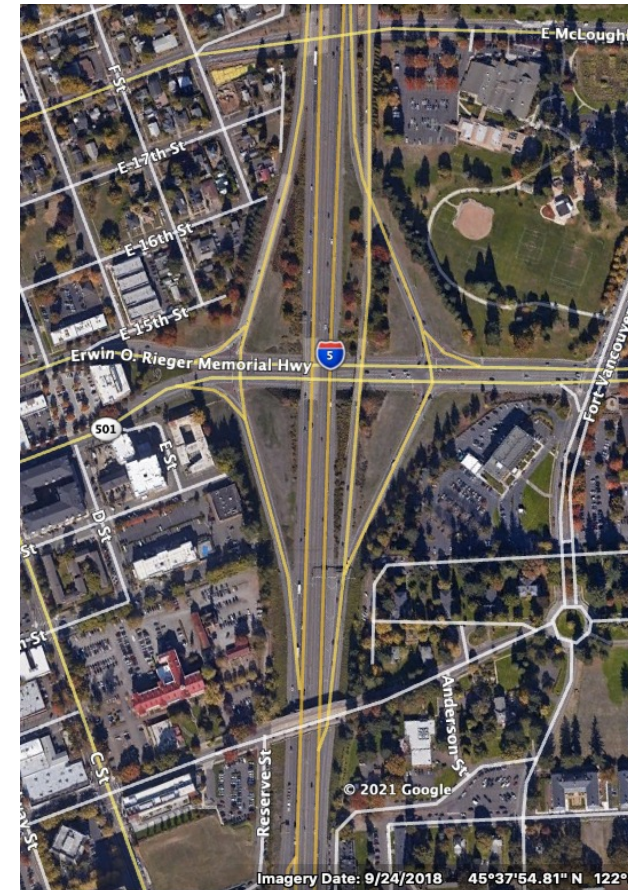
Does widening I-5 to 16-lanes at Evergreen Boulevard in Vancouver look like the “replacement” of the Interstate bridges?

Exhibit 2.2-13

Mill Plain Boulevard Interchange Improvements



Dimensions are approximate.



Today (2018)

What happened to “fixing our crumbling infrastructure”?

The \$1 billion proposed to be spent on interchange rebuilding, new freeway ramps and adding lanes to I-5 for the CRC (now the IBR) in Oregon, is about three times the amount of money needed to bring all National Highway System bridges in the entire state of Oregon into a “state of good repair.” See following documents.



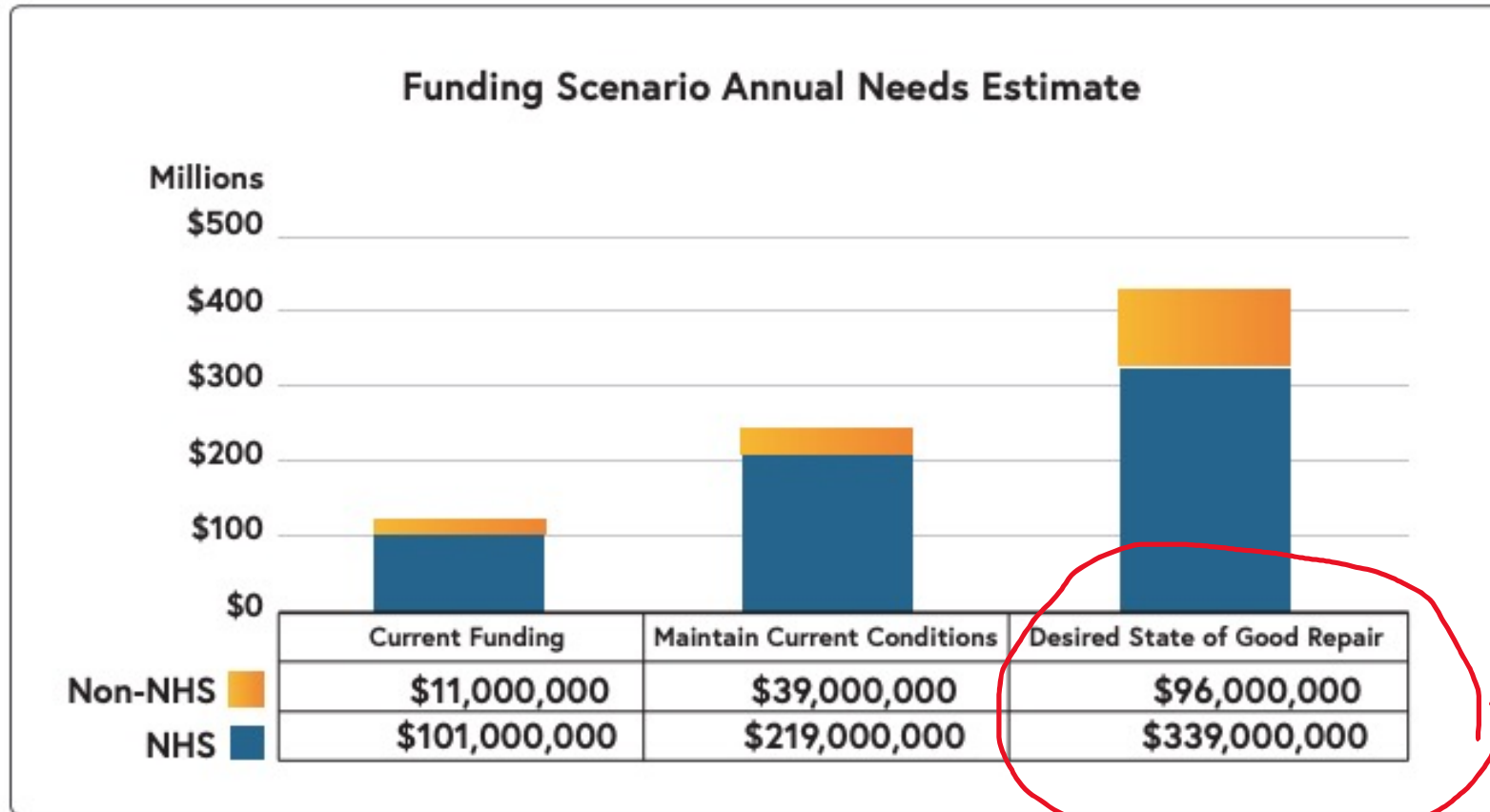
2020

**Bridge Condition Report
& Tunnel Data**

https://www.oregon.gov/odot/Bridge/Documents/Final_2020BridgeConditionReport.pdf

Bridge Funding Gap Analysis

Using 2018 data, an analysis was done to determine the funding needed to maintain current bridge conditions and to reach a Desired State of Good Repair (DSOGR) based upon the Oregon Transportation Commission Investment Strategy available at [OTC_Investment_Strategy](#). The results shown in the figure on the next page compare current funding with the funding needed to maintain or improve conditions.



Compare the \$339 million to bring all NHS bridges in Oregon into a state of good repair with the (2011) cost of \$1 billion for non-bridge freeway improvements in the CRC project area in Oregon and the \$990 million for demolishing and replacing the I-5 Bridges over the Columbia River, bridges which are **not** structurally deficient. (See next image.)

Propose Purpose and Need Statement for the Interstate Bridge Replacement Project

Purpose

To replace the Interstate 5 bridges over the Columbia River.

Need

- **Aging infrastructure:** The existing two Interstate 5 bridges over the Columbia River were built in 1916 and 1958. Although their structural condition is rated “fair” they will require continuing and expensive investments given their age.
- **Automobile congestion:** The bridges are narrower than the freeway north and south of them and have a lift span, contributing to vehicle and freight delays.
- **Impeding marine traffic:** The orientation of the lift span relative to the downstream mainline rail bridge can require dangerous navigation during high water on the river and impedes some marine traffic.
- **Seismic vulnerability:** The bridges are rated as vulnerable to moderate to severe damage in the event of an earthquake. (See the November 2009 Oregon Department of Transportation’s Bridge Engineering Section’s report “Seismic Risk to Oregon State Highway Bridges: Mitigation Strategies to Reduce Major Mobility Risks.”)
- **Poor bike and pedestrian facilities:** The bridges have very narrow bicycle and pedestrian paths. These facilities that do not meet modern standards and demand.
- **The bridges do not provide and will not carry high-capacity transit.**

Replacing the two existing bridges with new bridges would address these needs.

Proposed IBR Purpose and Need Statement
Draft of April 14, 2021

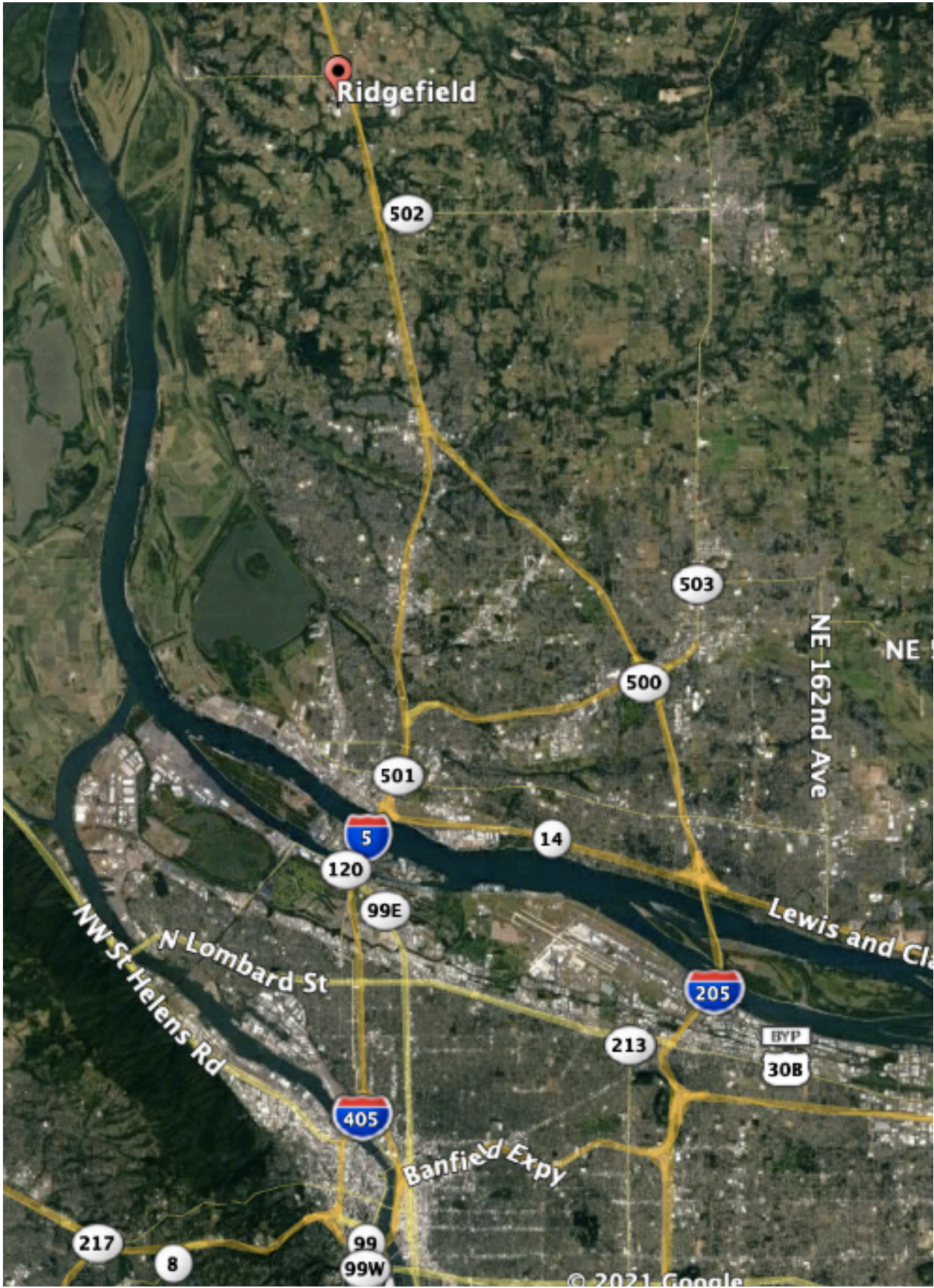
1.3.1 Project Purpose The purpose of the proposed action is to improve mobility and access, safety, equity and sustainability in the impact area of the bridges over the Columbia River (the Bridge Impact Area shown in Figure 1) by addressing present and future travel demand and mobility needs, taking into account racial justice, climate change, land use patterns and cost effectiveness.

Relative to the No-Build Alternative, the proposed action is intended to achieve the following objectives:

- a) Decrease serious deaths and injuries from vehicle collisions in the Columbia BIA by 50%.
- b) improve connectivity, reliability, and reduce travel times by 10%, and increase transportation options in the BIA;
- c) improve freight mobility and address interstate travel and commerce needs in the BIA; and
- d) improve seismic resilience of I-5 water crossings and other bridge structures in the BIA.

Figure 1: Bridge Impact Area

The image below shows the approximate area over which potential freeway and interchange expansions, transit and freight rail improvements and related projects and programs (including tolls) would have measurable effects (potential benefits and detriments) on congestion, safety, access, land values and development patterns, exposure to pollutants, the finances of persons paying tolls several times per week, and other factors.



1.3.2 Project Need The specific needs to be addressed by the proposed action include:

- Growing travel demand and congestion: Existing travel demand resulting in part from current development patterns results in congestion on the I-5 and throughout the BIA leading to congestion on the I-5 Columbia River crossing, associated interchanges, feeder arterials and other parts of the road network in the BIA. This corridor experiences heavy congestion and delay lasting 4 to 6 hours daily during the morning and afternoon peak travel periods and when traffic accidents, vehicle breakdowns, or bridge lifts occur. Due to excess travel demand and congestion in the I-5 bridge corridor, many trips take the longer, alternative I-205 route across the river. Spillover traffic from I-5 onto parallel arterials such as Martin Luther King Jr. Boulevard and Interstate Avenue increases local congestion. In 2005, the two crossings carried 280,000 vehicle trips across the Columbia River daily. Daily traffic demand over the I-5 crossing is projected to increase by more than 35 percent during the next 20 years, with stop-and-go conditions increasing to approximately 15 hours daily if no improvements are made.
- Impaired freight movement: I-5 and the mainline rail line is part of an important freight transport system on the West Coast, linking international, national and regional markets in Canada, Mexico and the Pacific Rim with destinations throughout the western United States. In the center of the project area, I-5 intersects with the Columbia River's deep-water shipping and barging as well as two river-level, transcontinental rail lines. The I-5 crossing and the rail line provides direct and important highway connections to the Port of Vancouver and Port of Portland facilities located on the Columbia River as well as the majority of the area's freight consolidation facilities and distribution terminals. Freight volumes moved by rail and truck to and from the area are projected to increase. Freight transport delay in the Portland-Vancouver area may increase significantly in the next 20 years. Growing congestion may harm freight-dependent businesses working in the BIA, that could be avoided or offset.
- Limited public transportation options, connectivity, and reliability: Due to limited public transportation options, residents of the region lack good choices for access to employment, education, services and recreation. Current congestion in the BIA increases travel time and reduces public transportation service reliability on public transit.
- Safety and vulnerability to incidents causing congestion: The I-5 river crossing and its approach sections experience crash rates more than 2 times higher than statewide averages for comparable facilities although with fewer deaths and serious injuries because of slower speeds. Incident evaluations generally attribute these crashes to traffic congestion and weaving movements associated with closely spaced interchanges and short merge distances. Without breakdown lanes or shoulders, even minor traffic accidents or stalls cause severe delay or more serious accidents (Exhibit 1.3-2).
- Substandard bicycle and pedestrian facilities: The bike/pedestrian lanes on the I-5 Columbia River bridges are about 3.5 to 4 feet wide, narrower than the 10-foot standard, and are located extremely close to traffic lanes, thus impacting safety for pedestrians and bicyclists (Exhibit 1.3-3). Direct pedestrian and bicycle connectivity are poor in the BIA.

- Seismic vulnerability: The existing I-5 and the bridge structures on and over I-5 and accessing I-5 in the BIA are located in a seismically active zone. They do not meet current seismic standards and may be vulnerable to damage or collapse in an earthquake, as analyzed in ODOT's 2009 seismic vulnerability study.

Testimony to the Equity Advisory Group
Of the Interstate Bridge Replacement (sic) Project
Presented orally by Robert Liberty on April 19, 2021

I am Robert Liberty of 3431 SE Tibbetts Street, Portland, Oregon.

I offer the following outcome-oriented definition of equity and a framework for measuring equity impacts from the project:

Equity means that the burdens and benefits of the project are distributed fairly between social and economic groups, taking into account the need to rectify past injustices imposed on marginalized communities.

Potential benefits of the project include:

- Reduced travel times for car drivers and passengers.
- Decreased freight travel times.
- Decreased deaths, injuries and property damage for persons using the new facilities including as a result of earthquake resilience.
- Increases in land values.
- Increased access to jobs within the same travel time.
- Decreased delays and increased safety for marine traffic of different types.
- Increased transportation options for users of transit, cyclists and pedestrians.

Potential burdens (harms) from the project include:

- Taxes and tolls for construction, operation and maintenance.
- Health impacts from increased air pollution.
- Increases in traffic deaths, injuries and property damage attributable to higher speeds travel speeds.
- Additional or offsetting congestion resulting from construction delays, induced demand and displacement of congestion to other routes caused by tolling.
- Decreased land values.
- Increases in climate-changing pollution.
- Adverse impacts on water quality and fish populations from construction and operation of the project.

In order to carry out an equity analysis, both the estimated benefits and estimated burdens in the full project impact area [and not the tiny program study are shown in the slides] must be quantified and allocated to different groups of people, businesses and institutions.

The analysis must consider how this project addresses past inequities and impacts on the tribal treaty rights.