

## **Letter: Tunnel would be safer than bridge**

By Bob Ortblad, Seattle

Published: August 24, 2021

On Sunday, Feb. 14, 2021, Antonio Amaro Lopez on his way home from work plunged off the Interstate 205 Bridge into the Columbia River. Antonio was driving less than 50 mph, hit an ice patch, skidded, and jumped a Jersey barrier.

Ice and the bridge's 2.7 percent downgrade extended his stopping distance more than 10 times. The I-205 Bridge is curved, so Antonio slid across four lanes before hitting a snow ramp that launched his SUV over a Jersey barrier into the river.

Go Safe Labs ranked the I-205 Bridge as the eighth most accident-prone site in the country, with an accident every three days.

A new I-5 Columbia River bridge will be even more dangerous. The 10-year-old \$200 million Columbia River Crossing bridge design has a 4 percent downgrade, curvature similar to the I-205 Bridge, a shaded northern exposure that will retain black ice, and sight distances much shorter than stopping distances in foggy, wet or icy conditions.

The Interstate Bridge Replacement Program administration is eager to recycle the Columbia River Crossing bridge design. The IBR has spent hundreds of thousands of dollars on bridge engineering consultants to discount the possibility of a much safer river crossing design: an immersed tube tunnel.

## **Letter: Bridge program needs to answer**

By Bob Ortblad, Seattle

Published: September 10, 2022

The Interstate Bridge Replacement Program has spent millions to manufacture public consent for its “Modified Locally Preferred Alternative,” a green-washed copy of the failed Columbia River Crossing. The IBR has exploited equity to promote its locally preferred alternative. The poor will get noise, pollution, and the danger of traversing the steepest (4 percent grade) interstate bridge on balder tires. The IBR has staged a Kabuki theater of citizen advisory groups and produced a score of videos with bureaucrats and young interns touting its locally preferred alternative design. The 1,670 @IBRProgram tweets are full of platitudes, puffery, and jargon, but few facts.

These tweets have received few and negative public comments. Critics have demanded IBR create 3D graphics for the LPA’s bridge, interchanges, and bike/pedestrian ramps. The IBR has not responded.

Unfortunately, local municipalities and agencies have trustingly accepted the IBR’s manufactured consent and approved the LPA. The IBR should stop wasting public money to pervert public opinion, and start answering true public opinion questions.



# The Columbia

## **Letter: Build a tunnel, not a bridge**

By Bob Ortblad, Seattle

Published: January 2, 2022, 6:00am

As our roads are covered with ice, the Interstate Bridge Replacement program has presented three dangerous I-5 Bridge options. All three options will have a steep 4 percent bridge grade, plus a 7 percent off-ramp grade to state Highway 14. These will be extremely dangerous when coated with ice. The Interstate Bridge Replacement program has repeatedly promised “data-driven” analysis. The Interstate Bridge Replacement must employ highway safety experts and insurance actuaries to calculate the number of deaths and injuries over the 100-year-life of their bridge options.

We can't change the weather, but we can choose a safer crossing option. An immersed tunnel is protected from the weather and would also be many times safer when the Cascadia earthquakes hits. Gothenburg, Sweden, is the world's most sustainable city and has long, snowy winters. Gothenburg completed its second immersed tunnel in 2020 and its two tunnels have 180,000 weather-protected daily crossings.

## **Letter: Consider tunnel instead of bridge**

By Bob Ortblad, SEATTLE

Published: August 14, 2022

Washington and Oregon are risking \$2.5 billion of federal grants to replace the Interstate 5 Bridge over the Columbia River. The U.S. Coast Guard has suggested the Interstate Bridge Replacement Program consider a tunnel as an alternative to an impractical tall bridge (178-foot clearance). The Coast Guard must see that the bridge program's "tunnel concept assessment" is incorrect and misleading. The program is ignoring the 178-foot clearance requirement and has pressed municipalities and agencies to approve its "locally preferred alternative" of a too-low bridge (116-foot clearance). If the program's plan to politically pressure the Coast Guard to accept its preferred alternative fails, federal funds will go to better projects.

The Washington-Oregon legislative committee should support the Coast Guard's tunnel evaluation recommendation and hire a consultant, independent of the bridge replacement program, to do an honest evaluation of an I-5 immersed tunnel.

## Letter: 'This unnecessary deadly design is criminal negligence'

If the Interstate Bridge Replacement Program's (IBR) extremely steep bridge is built, a semi-truck will fly off the bridge and crash onto downtown Vancouver.

Bridge decks freeze before roadways because the air cools both the top and bottom surfaces. During winter months supercooled liquid droplets in fog will freeze instantly on the North-facing bridge deck forming dangerous black ice. With more warming sunshine the South slope will be ice-free.

A trucker driving north on I-5 will be lulled into the safety of dry roads and an ice-free South slope. The truck will slow to 45 mph climbing the +4 percent ice-free South slope. At the bridge crest, as the grade flattens the truck will gear up to 55 mph and then accelerate to 65 mph on the down-hill slope.

Two-hundred yards past the bridge crest the truck will hit black ice on the country's steepest Interstate Highway bridge grade of -4 percent. Braking is useless on black ice and seconds later the truck will need to make a slight right turn. A 40-ton semi-truck cannot turn on black ice. At 65 mph it will crash through the bridge rail, falling 90 feet onto downtown Vancouver.

This unnecessary deadly design is criminal negligence. The IBR continues to ignore a safer weather-protected immersed tunnel alternative that will protect Vancouver from a falling semi truck, noise, and freeway blight.

**Bob Ortblad MSCE, MBA**  
*Seattle*



Bob Ortblad

## Letter: ‘The Interstate Bridge Replacement program has presented three dangerous I-5 Bridge options’

As our roads are covered with ice, the Interstate Bridge Replacement (IBR) program has presented three dangerous I-5 Bridge options. All three options will have a steep (4 percent) bridge grade, plus a 7 percent off-ramp grade to SR-14. These will be extremely dangerous when coated with ice.

The IBR program has repeatedly promised “data-driven” analysis. The IBR must employ highway safety experts and insurance actuaries to calculate the number of deaths and injuries over the hundred-year-life of their bridge options.

We can’t change the weather but we can choose a safer crossing option. An immersed tunnel is protected from the weather and would also be many times safer when the Cascadia earthquake hits.

Gothenburg, Sweden is the world’s most sustainable city and has long snowy winters. Gothenburg completed its second immersed tunnel in 2020 and its two tunnels have 180,000 weather-protected daily crossings.

**Bob Ortblad MSCE, MBA**



Bob Ortblad MSCE, MBA