

## Plague of problems puts Bay Bridge seismic safety in question

<https://www.sfgate.com/bayarea/article/Plague-of-problems-puts-Bay-Bridge-seismic-safety-6253577.php#photo-7954752>

10 years late and \$5 billion over budget

## Bay Area Commuters Angered Over Mismanagement Of Bridge Project

<https://www.npr.org/2015/10/16/449238071/bay-area-commuters-angered-over-mismanagement-of-bridge-project>



A 1915 truss bridge design  
upgraded to a 2025  
earthquake resistance design  
will be very costly.

**5,000 tons**



**500 tons**



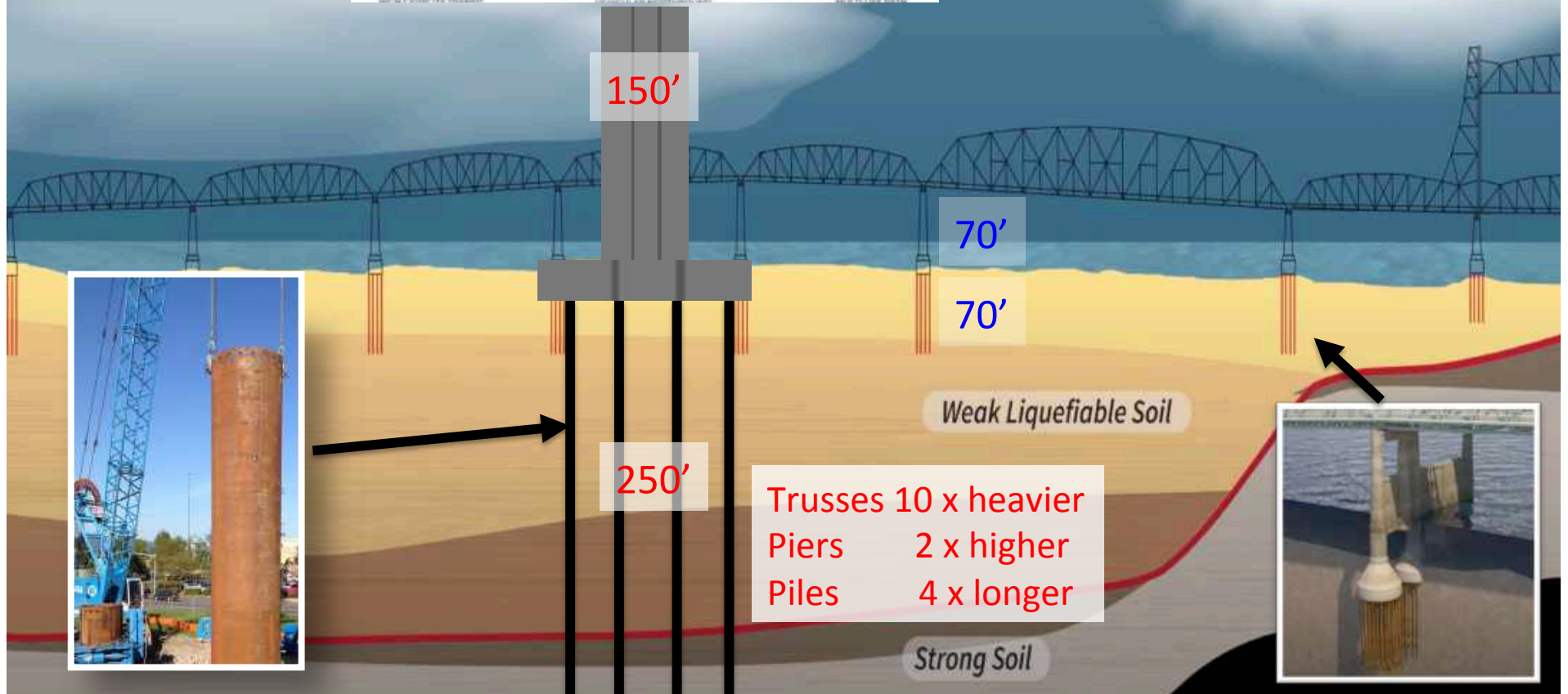
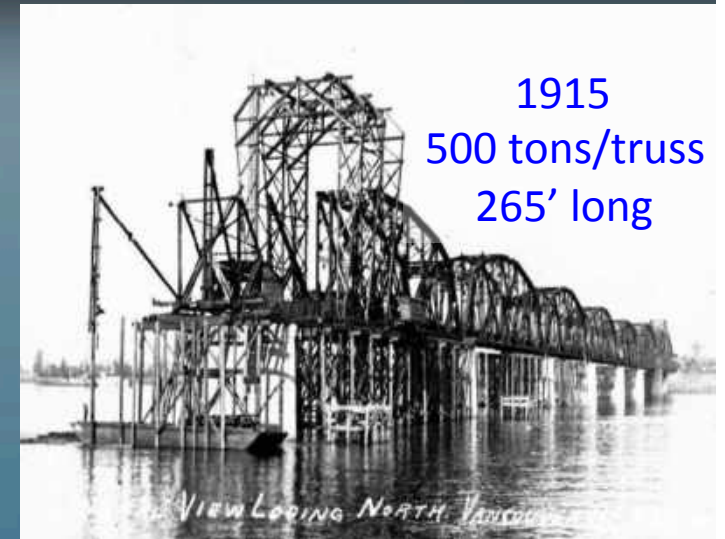
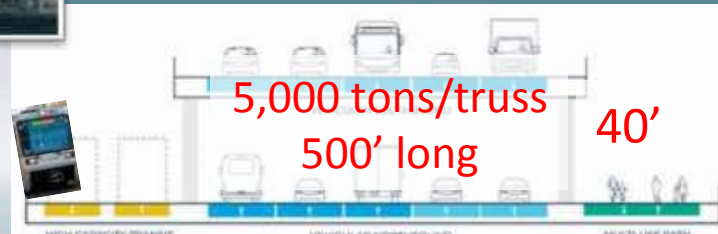
Earthquake Vulnerability

<https://youtu.be/bVo8uUMeMLg>





# 1915 design for 2025 bridge?





Seattle

\$315 million needed to repave the bridge, paint steel beams and do seismic strengthening.

A steel truss bridges are expensive to build or upgrade for earthquake resistance and are costly to maintain.

Buoyancy makes floating bridges almost earthquake proof.

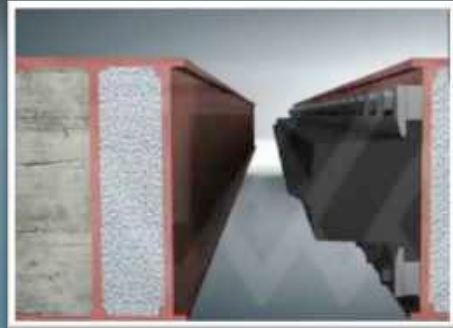


Prior seismic upgrades



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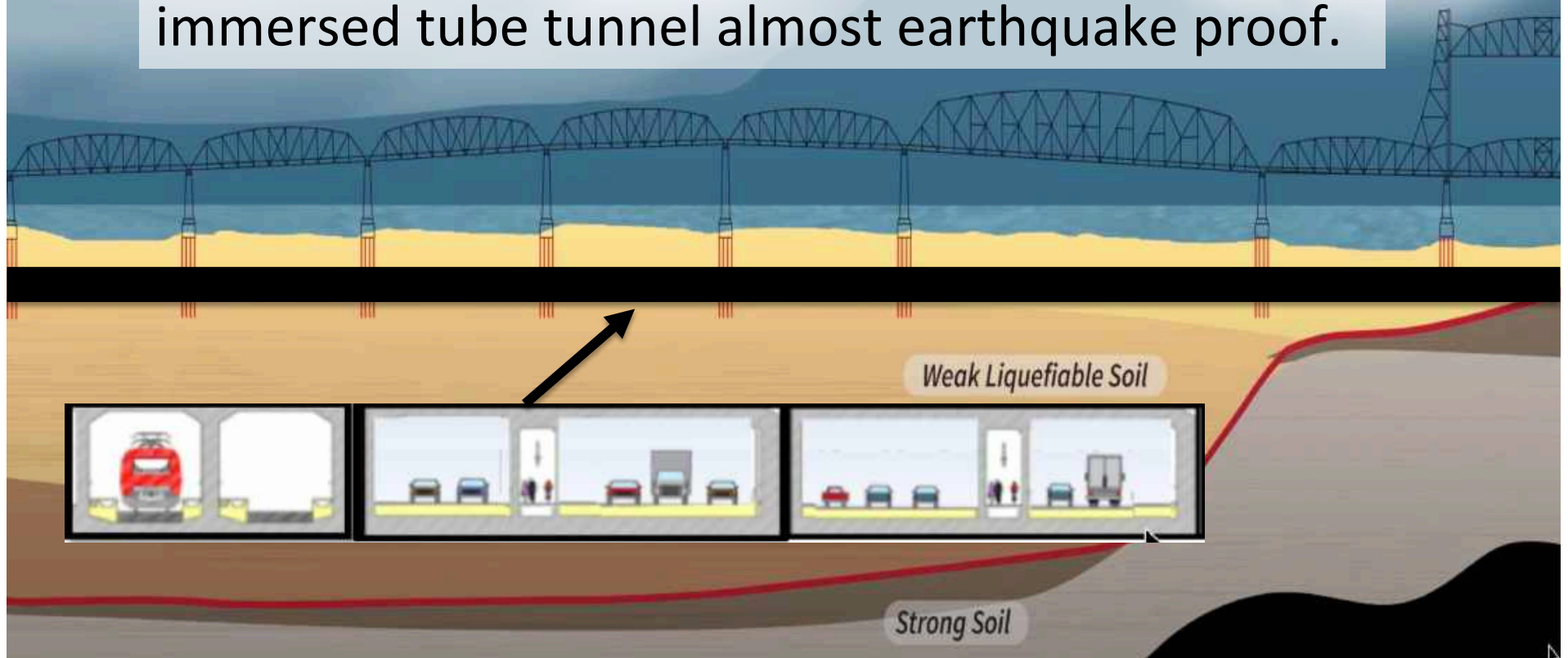


[https://www.youtube.com/watch?v=ELj0\\_fyBHaM](https://www.youtube.com/watch?v=ELj0_fyBHaM)



<https://youtu.be/3wDeACwOTbs>

Like a floating bridge, buoyancy makes an immersed tube tunnel almost earthquake proof.



## BAY AREA QUAKE : BART's Underwater Tunnel Withstands Test

<https://www.latimes.com/archives/la-xpm-1989-10-18-mn-167-story.html>

