



### **Portland Design** Commission **Briefing**

Department of Community Services Transportation Division

October 18, 2018



### Regional Earthquake Risk

- "The Oregon Resilience Plan: Reducing Risk and Improving Recovery for the Next Cascadia Earthquake and Tsunami" Report to the 77<sup>th</sup>
  Legislative Assembly from Oregon Seismic Safety Policy Advisory Commission (OSSPAC), Feb, 2013
- "The Really Big One: An earthquake will destroy a sizable portion of the coastal Northwest. The question is when." The New Yorker, July 20th, 2015
- "Half Of Oregon's Critical Bridges Could Collapse In Quake" OPB, Sept 25th, 2015
- "Unprepared: An Oregon Field Guide Special" Season 27
  Episode #2701 Oct 1st, 2015



Illustration by Christoph Niemann; Map by Ziggymaj / Getty

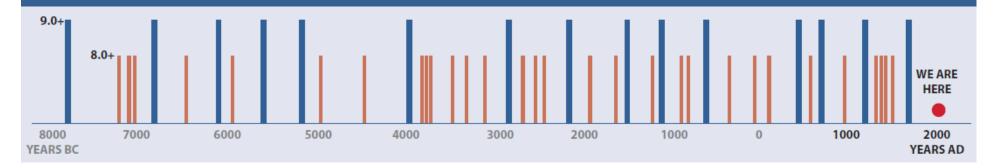




### Regional Earthquake Risk

#### **CASCADIA SUBDUCTION ZONE (CSZ) EARTHQUAKE**

Last major quake in Oregon occurred 317 years ago, a timespan that exceeds 75% of the intervals between the major quakes to hit Oregon over the last 10,000 years.







### **Agencies Taking Action**













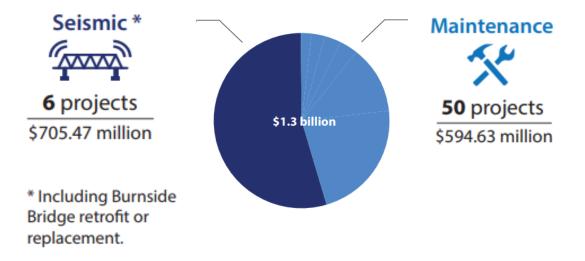






#### 2015 Willamette River Bridges Capital Improvement Plan

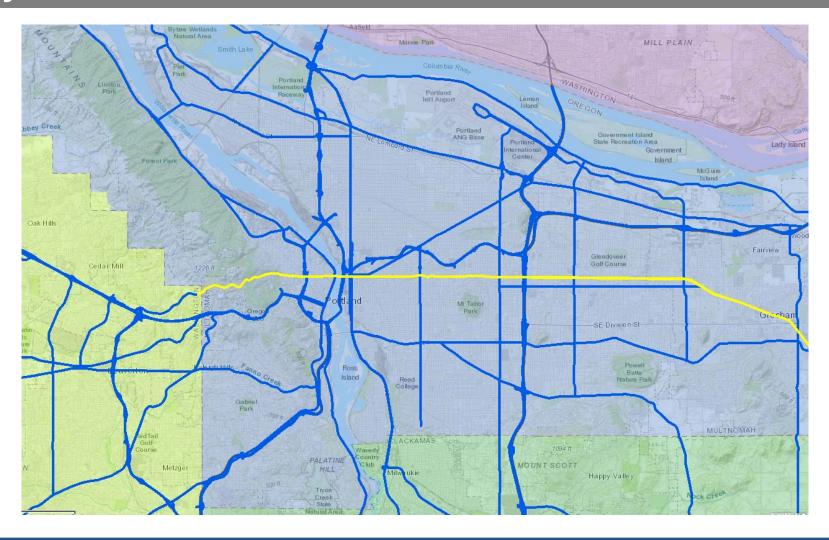








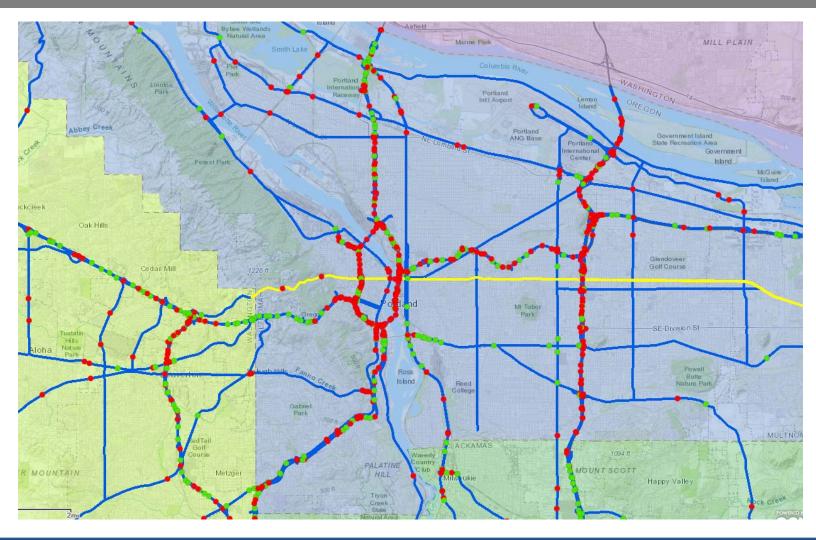
### Why Burnside?







### Why Burnside?







#### Purpose



Create a seismically resilient Burnside Street lifeline crossing of the Willamette River that will remain fully operational and accessible for vehicles and other modes of transportation immediately following a major CSZ earthquake.



Support the region's ability to provide rapid and reliable emergency response, rescue and evacuation after a major earthquake, as well as enable post-earthquake economic recovery.



Provide a long-term, low-maintenance and safe crossing for all users.





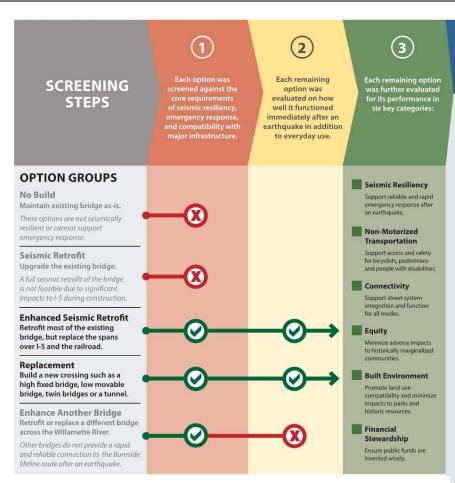
#### **Feasibility Study Process and Findings**







### **Feasibility Study Process and Findings**



#### 4) REMAINING OPTIONS

Four options have risen to the top through the screening process. We will be asking for your feedback before choosing the final range of options for further study in the environmental phase.

# ENHANCED SEISMIC RETROFIT By MOVABLE SPAN E Burnside S

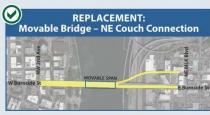
An upgrade of the existing bridge to meet current seismic standards. To reduce the construction impacts on the I-5 corridor and railroad, part of the bridge will be replaced.



A new fixed bridge with a maximum clearance of 97 feet, at about the same location as the current bridge. It doesn't open, but is tall enough to allow ships to pass without halting traffic. The west landing touches down about 3 blocks further west than the current bridge, near NW 5th Avenue.



A new movable bridge at about the same height and location as the current bridge.



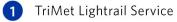
A new movable bridge at about the same height as the current bridge. The east landing splits to connect to NE Couch Street. Westbound traffic uses NE Couch Street. Eastbound traffic uses E Burnside Street.













- 2 City of Portland Roadway (Naito Pkwy, NE/SE MLK, NE/SE Grand)
- 3 City of Portland Combined Sewer Overflow



Oregon Department of
Transportation Highway Facilities
(I-5 and I-84)



Union Pacific Railroad Mainline

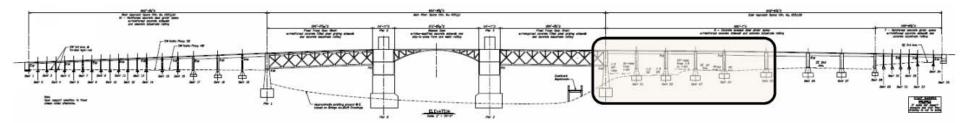


U.S. Coast Guard / River Navigation





#### **Enhanced Seismic Retrofit**











### Replacement: Fixed Bridge







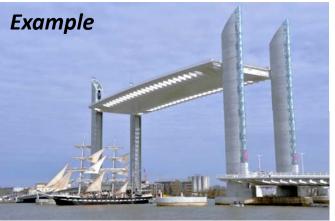




### Replacement: Movable Bridge











### Replacement: Movable Bridge – NE Couch Connection



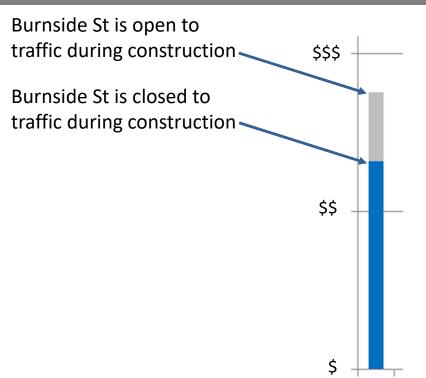








### **Preliminary Project Costs (\$M)**

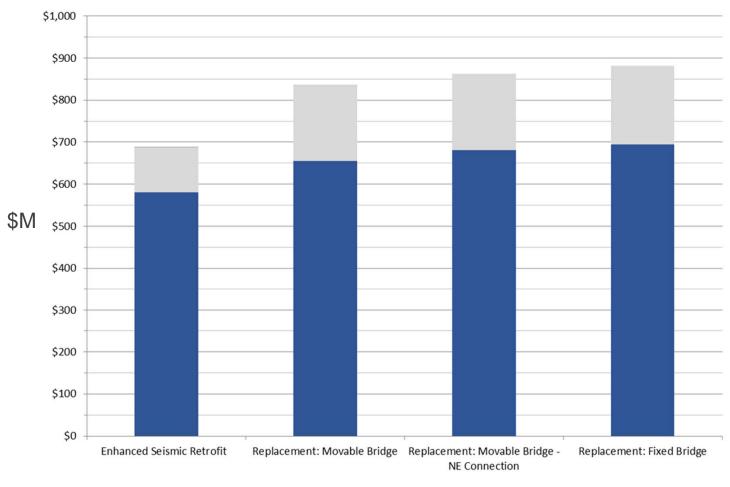








### **Total Preliminary Project Costs (\$M)**



#### Notes:

- Project costs include NEPA, Design, ROW Acquisition, and Construction phases
- Project costs are escalated to the year of construction

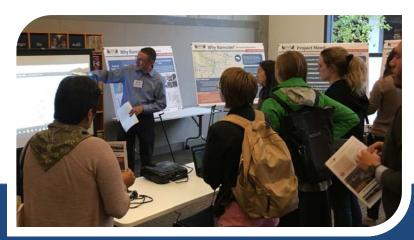


# **Community Engagement**











### **Community Engagement**



#### September Outreach – What We Heard



Urgency to get the project done earlier



Desire for bike paths, pedestrian paths and bus only lanes



Concerns about impacts to nearby buildings and the overall transportation system



Most said they agree or strongly agree with choice of recommended options, remarking that they were reasonable and well thought out



More support for a new bridge than a retrofit, but still some support for retrofit



More support for movable than fixed, but some support for both



Views and aesthetics should still be considered, making the bridge an "iconic" part of Portland



Interest in keeping some historical components/aesthetics of the bridge, concern for demolishing the bridge and its historical importance



### **Environmental Review Phase**



#### National Environmental Policy Act (NEPA) Process



#### **Assess the Impacts and Benefits**



#### **Gather Input**



#### **Decide What to Build**

Feasibility Study



#### Scoping

- Public Outreach
- Stakeholder Briefings
- Regulatory Agency Coordination
- Purpose and Need
- Range of Alternatives
- Research Needs
- Scoping Report



#### **Draft EIS**

- Define Alternatives Including No-Build
- Existing Conditions
- Impacts
- Potential Mitigation
- Regulatory Compliance
- Compare Alternatives
- Publish DEIS
- Public, Regulatory and Stakeholder Input
- Preferred Alternative



#### **Final EIS**

- Respond to Input
- Refine and Update
   Analysis & Alternatives
- Publish FEIS



#### **Record of Decision**

- Formal Decision
- Mitigation Commitments
- Regulatory Compliance
- Sign Record of Decision



Bridge Type
Selection;
Final Design &
Permitting;
Construction

2-4 Months 1-2 Years 6-18 Months

Formal Comment Period

### **Environmental Review Phase**



#### **Project Overview and Milestones**

