1. Welcome & Opening Remarks
2. Project Update
3. Screening Process
4. Screening Results
5. Alternatives Evaluation
6. Schedule Review
7. Public Comment
8. Closing Remarks
2. Project Update

Key Activities

- Board of County Commissioners
- Project Team
- Public
- Stakeholders (Including the Stakeholder Representative Group (SRG))
- Technical Community
- Senior Agency Staff
- Policy Group
2. Project Update

Stakeholder Outreach – Key Activities

- **Committee Meetings**
  - SRG #1, April 17, 2017
  - SASG #2, July 14, 2017

- **Briefings**
  - Kerns Neighborhood Assoc., March 15, 2017
  - MultCo Bike Ped Committee, April 12, 2017
  - Buckman Neighborhood Assoc., April 13, 2017
  - Port of Portland, July 6, 2017
  - USACE, July 11, 2017
  - NAYA, July 13, 2017
  - Mercy Corps, August 3, 2017
  - Senator Merkley Staff, August 11, 2017
  - U.S. Coast Guard, August 14, 2017
  - Burnside Skatepark, August 28, 2017
  - Regional Disaster & Preparedness Org., September 13, 2017

- **Equity & Diversity Outreach**
  - Bridgetown Night Strike, July 11, 2017
  - VOZ, July 21, 2017
  - Central City Concern, August 25
  - MultCo Disability Services Advisory Council, August 28, 2017
2. Project Update

Technical Community – Key Activities

- Emergency Management Roundtable, June 14th, 2017
- Seismic Resiliency Committee Meeting, June 20th, 2017
  - Seismic Design Criteria
  - Technical Design Guidance
Key Finding #1

Assumptions have been made about the availability of transportation routes after a major earthquake
2. Project Update

Technical Community – Emergency Management Round Table

Key Finding #2

- Agencies working towards the same goal
  - Transportation Recovery Plan (PBEM)
  - Debris Management Plan (Metro)
  - URM Seismic Retrofit Project (PBEM)

Key Finding #3

- Many opportunities to coordinate moving forward
2. Project Update

Technical Community – Seismic Resiliency Committee

Key Performance Criteria – For Example:

- What does the earthquake look like?
- When will the bridge be operable following an earthquake?
- What assumptions are being made about crossing design features (height, width, elevation, etc.)?
- What heavy haul or specialty vehicles will need to use the bridge?
2. Project Update

Technical Community – Seismic Resiliency Committee

- Understanding the soils around the bridge
  - What does the soil look like?
  - How bad are the soft soil effects?
  - How much would it cost to fix it?

Soil Profile

Liquefaction Potential
2. Project Update

Key Activities

- Board of County Commissioners
- Public
- Project Team
- Stakeholders (Including the Stakeholder Representative Group (SRG))
- Technical Community
- Senior Agency Staff
- Policy Group
2. Project Update

Key Activities – Public Outreach

Website/Videos

Project Overview - Teaser

Lifeline

Earthquake

Emergency Response

Simulation
2. Project Update

Key Activities – Public Outreach

Simulation Video

- 56,374 views
- 35,000 from Oregon
- Highest number of views for any County video
2. Project Update

Key Activities – Public Outreach

Survey

- What should Multnomah County consider as we begin to look at options for an earthquake ready river crossing?
- What opportunities do you see with this project?
- What questions do you have about this project?
- Is there anything else you want to tell us?
2. Project Update

Key Activities – Public Outreach

Survey Results

➢ 170 responses

What should Multnomah County consider as we begin to look at options for an earthquake ready river crossing?
2. Project Update

Key Activities – Public Outreach

Survey Results - Demographics

How often do you use the Burnside Bridge?

Frequency of use: “Once per week or less” was the most frequent response
2. Project Update

Key Activities – Public Outreach

Survey Results - Demographics

How do you use the bridge?

- **Auto**: 84%
- **Bus**: 24%
- **Walk**: 20%
- **Bike**: 19%
2. Project Update

Key Activities – Public Outreach

Survey Results - Demographics

➤ Stay Informed

About ½ of all respondents signed up for project emails.

Many said they would follow us on social media.
2. Project Update

Key Activities – Public Outreach

Survey Results

Q1: What should Multnomah County consider as we begin to look at options for an earthquake ready river crossing?

- Safety
- Getting something in place quickly
- Reliability
- Several design suggestions
- Improve bridge operations
- Enhance multi-modal use
2. Project Update

Key Activities – Public Outreach

Survey Results

Q2: What opportunities do you see with this project?

- Raising general public awareness of earthquake threat
- Making multi-modal improvements
- Creating jobs
Q3: What questions do you have about this project?

- What option is the best approach to solving the problem?
- How much will it cost, and how is it paid for?
- What other emergency preparedness planning is underway?

NOTE: Website and FAQs address many of the questions asked by respondents. We will use this input to expand our FAQs
2. Project Update

Discussion Break
3. Screening Process

We are here
3. Screening Process

Pass/Fail Criteria

- Major Infrastructure Compatibility
- Seismic Resiliency
- Emergency Response
3. Screening Process

Scoring Criteria

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = Poor</td>
<td></td>
</tr>
<tr>
<td>3 = Fair</td>
<td></td>
</tr>
<tr>
<td>5 = Good</td>
<td></td>
</tr>
</tbody>
</table>

SCORING

Post-Earthquake:
- Seismic Design
- Emergency Response
- Emergency Function
- Emergency Plan Consistency

Pre-Earthquake:
- Everyday Function
- Ease of Maintenance
4. Screening Results

Alternative Groupings

SCORING RANGES

0%  10%  20%  30%  40%  50%  60%  70%  80%  90%  100%

FAIL

FAIL

PRESERVE

SEISMIC RETROFIT

REPLACEMENT

HYBRID

ENHANCE ANOTHER BRIDGE
4. Screening Results

Alternative Groupings Results

SCORING RANGES

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

FAIL

FAIL

Low, Existing Alignment
Low, Offset North
Low, Offset South
Low, Offset N. Twin Multi-Modal
Low, Offset N. Twin Mode-Separated
Low, Offset S. Twin Multi-Modal
Low, Offset S. Twin Mode-Separated
Low, Stacked, Existing
High, Existing Alignment
High, Offset N. Alignment
High, Offset South
High, Offset N. Twin Multi-Modal
High, Offset N. Twin Mode-Separated
High, Offset S. Twin Multi-Modal
High, Offset S. Twin Mode-Separated
Tunnel

Replace River Spans 20-21, No Wide
Replace River Spans 20-21, Widen
Replace River Spans 20-22, No Wide
Replace River Spans 20-22, Widen
Replace East Spans, No Wide
Replace East Spans, Widen
Replace River + East, No Widen
Replace River + East, Widen

Fremont
Broadway
Steel
Morrison
Hawthorne
Marquam
Tilikum
Ross Island
Sellwood
4. Screening Results

Key Findings and Recommendations

Results:
Of the 5 groups of alternative types, 3 groups were eliminated through the screening process.
5. Alternatives Evaluation

PASS/FAIL
SCORING
EVALUATION
NEPA DOCUMENTATION
Guiding Principles

- Measurable at the level of design and information that will be available in this step
- Help differentiate alternatives
- Reflect input received to date
- Narrow range of crossing options to be carried forward into an environmental impact statement
5. Alternatives Evaluation

Potential Criteria Topics

- Equity and Diversity
- Social Resources (neighborhoods, social services, etc.)
- Right-of-Way
- Traffic Congestion
- Recreation
- Facility Use (HazMat, emergency equipment, vessels, heavy haul, etc.)
- Sustainability
- Land Use, Commerce, and Economic Development
- Construction
- Historic/Cultural
- Seismic Performance
- Permitting Requirements
- Bike/Ped/ADA Access
- Natural Environment
- Transit Access and Connectivity
- Others?
5. Alternatives Evaluation

Concepts Development

What’s happening next?

- 22 options moving forward into Evaluation phase
- Advancing alternatives engineering
- Developing cost estimates
- Finalizing design guidelines
- Developing evaluation criteria and measures
- Conducting alternatives evaluations
- Continued technical and public outreach
6. Schedule Review

We are here
7. Public Comment

Questions or comments?
Thank you