



Stakeholder Representative Group Meeting #2

Meeting Summary

July 27, 2017
6:00–8:00 p.m.
Multnomah County Building
501 SE Hawthorne Blvd., Portland

SRG Members Present

Nathaniel Brown, *Portland Business Alliance*
Reid Decker, *Saturday Market*
Marie Dodds, *AAA Oregon*
Chris Dorin, *Neighborhood Emergency Teams*
Mark Ginsberg, *The Street Trust*
Arthur Graves, *Multnomah County Bike/Ped Advisory Committee*
Lisa Gugino, *Saturday Market*

Jana Jarvis, *Oregon Trucking Association*
Dan Lenzen, *Old Town/Chinatown Community Association*
Susan Lindsay, *Buckman Community Association*
Ed Wortman, alternate for Sharon Wood Wortman, *Author of Bridge Stories*
Dan Yates, *Portland Spirit*

SRG Members Absent

Sage Bolyard, *Burnside Skatepark*
Juliana Lukasik, *Central Eastside Industrial Council*
Josh Mehrer, *Univ. of Oregon architecture student*
Kathy Pape, *Central City Concern*
Travis Williams, *Willamette Riverkeeper*

Staff and Consultants

Ian Cannon, *Multnomah County*
Megan Neill, *Multnomah County*
Chris Fick, *Multnomah County*
Karyne Kieta, *Multnomah County*
Heather Catron, *HDR*

Steve Drahota, *HDR*
Jeff Heilman, *Parametrix*
Vaughn Brown, *JLA Public Involvement*
John Todoroff, *JLA Public Involvement*

Member of the Public

Garrett Andrews, *DJC Oregon*

Welcome and Introductions

Vaughn Brown, JLA, welcomed the committee to the second meeting. Committee members, County staff, and consultants introduced themselves. Of the members who were unable to attend the first meeting, all except one were in attendance. Vaughn encouraged those attending for the first time to not be shy about asking for clarification or further explanation of topics presented or discussed during the meeting. He then previewed the meeting agenda.

Project Update

Heather Catron, HDR, began the presentation with a discussion of the multiple committees, technical staff, and members of the public who are working with the project team. She reviewed meetings of the Policy Group and the Senior Agency Staff Group held since the last SRG meeting, as well as stakeholder briefings with community organizations and agencies. Heather reported that at a recent emergency management roundtable meeting with technical staff from multiple jurisdictions, the discussion centered on Regional Emergency Transportation Routes. These routes are intended to facilitate response to a variety of emergency situations, not just earthquakes, and rely on bridges for emergency response. There are many local and state agencies working on emergency management planning who are interested in having a reliable river crossing following a CSZ earthquake. This roundtable group will meet again in the fall of this year.

Steve Drahota, HDR, discussed the recent meeting of the Seismic Resiliency Committee, where engineers, geologists, and other technical experts talked about topics such as earthquake loads, post-quake emergency and other vehicle needs, and bridge and roadway design assumptions. Geologists produced a geotechnical analysis which predicts liquefaction and lateral spreading at the Burnside Bridge site. Based on this analysis, large portions of the east bank are expected to slide into the Willamette River during a major earthquake event. The committee also discussed retrofitting the bridge, which would involve a major addition to the piers, making them wider and founded with new large drilled shafts, and the superstructure would need to be thickened and partially replaced.

Heather summarized recent public outreach efforts, including the project website, social media, an online survey, and five videos. She discussed the purpose of the videos and presented the [Project Overview](#) video. The online survey had collected over 140 responses at the time of this meeting, gathering feedback from participants about their considerations regarding the Earthquake Ready Burnside Bridge project. The survey will be open until mid-August, and results will be presented to the next Policy Group meeting on August 23.

Members of the committee were given the opportunity to comment or ask questions.

Dan Yates, owner of Portland Spirit, asked if every bridge will collapse during an earthquake. Steve responded that the bridges owned by Multnomah County are expected to collapse or be unusable. Dan said that his company has an agreement with the City of Portland to provide emergency transportation services after an earthquake. He is concerned that the City's docks will not survive an earthquake, but it would be relatively inexpensive to reinforce some docks in the short term, as an interim solution.

A committee member remarked that the simulation video has been shared widely on social media. Vaughn asked the committee to contribute ideas about social media content.

Jana Jarvis asked about load weight assumptions in the technical design of the bridge, since there will be a need to haul large construction cargo after an earthquake. Steve responded that engineers are assuming the bridge would be designed to carry large special haul vehicles. He asked Jana to provide input if she believes that design for this weight class would be insufficient. She responded that she would look into it.

Screening Process

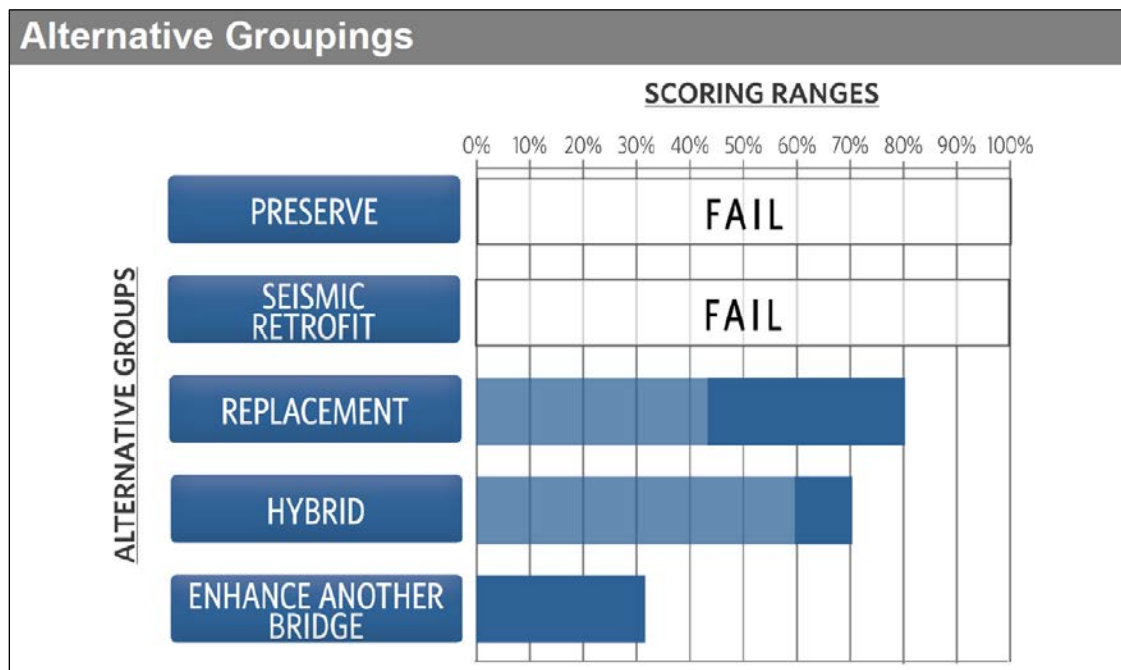
Heather recapped the discussion about screening criteria from the previous SRG meeting. Then Jeff Heilman, Parametrix, talked about the project's current screening process beginning with the Pass/Fail step. There are three main pass/fail criteria: major transportation infrastructure compatibility, seismic resiliency, and emergency response. Any proposed alternative that does not adequately meet these criteria has been eliminated from further consideration. For example, a seismic retrofit option that would require the complete closure of I-5 for several months during construction was considered to have failed the major infrastructure compatibility criterion. The emergency response criteria considered emergency response time as it relates to route length, potential blockages on the route, and the capacity of the crossing to accommodate emergency response traffic (based on having at least a minimum capacity equivalent to three traffic lanes). A committee member questioned the concept of lane capacity equivalent, predicting that there will be no personal vehicles in use during the short-term aftermath of a major earthquake resulting in greater reliance on alternative transportation modes in the long term. Jeff responded that capacity was an important factor regardless of travel mode.

Jeff then discussed the Scoring Criteria. Alternatives were given a score — 1, 3, or 5 — based on how well the alternative would perform on each criterion. Some of the scoring criteria included: how well an alternative supports existing emergency plans; how well it performs during everyday function (independent of an earthquake); and amount of maintenance to achieve its 100-year service life. A committee member asked if the scoring criteria included the consideration of collapsing structures near the bridge that are expected to obstruct roads with debris after an earthquake. Jeff responded that building collapse was not directly evaluated in this phase but was indirectly reflected in the emergency response capacity criterion. More specific consideration of the effect of adjacent buildings will be included in the upcoming Alternatives Evaluation phase.

Screening Results

Steve discussed the calculations that were involved in scoring each alternative, resulting in a score of 0 to 100%.

The alternative groupings were presented in a graph which shows that two of the groups, “Preserve” and “Seismic Retrofit” were eliminated in the Pass/Fail step. Preserving the existing Burnside Bridge would not be seismically resilient without strengthening, and preserving other bridges would not provide adequate emergency response capability. It was determined that the seismic retrofit alternatives would require a long-term closure of I-5, thus causing them to also fail the Pass/Fail step. The “Replacement” and “Hybrid” (combination of new construction and retrofit) groups contained alternatives that scored well enough to be carried into the evaluation phase. Only one alternative from the “Enhance Another Bridge” group, the Morrison Bridge, passed the first screening step; however, it scored low because of its distance from the Burnside lifeline route, and is proposed to be eliminated from consideration.



The highest scored alternatives reached 80%. A committee member asked why none of the alternatives got 100%, and Steve responded that none of the alternatives were able to achieve a maximum score in all criteria because of the nature of the criteria rating definitions. For example, a fixed bridge with a large vertical clearance scores lower for bicycle and pedestrian accessibility but higher for river traffic flow.

A committee member expressed concern about a moveable bridge being able to remain operable after a big earthquake. Steve responded that it would be a challenge that would require creative engineering solutions, but such bridges have been built elsewhere.

Steve clarified that the score of each alternative is a product of the screening process criteria rather than a true measurement of value; so it would be inappropriate to say that an alternative with a 70% score is ten percent “better” than one with 60%.

Two committee members expressed concern that a tunnel option would not serve well after an earthquake. Mechanical ventilation would require generator power during an electricity shutdown, and traffic accidents would be difficult to clear after an earthquake. A tunnel would also be a very unappealing option for pedestrians and bicyclists. Ian Cannon, Multnomah County, responded that the technical team has been debating whether to eliminate the tunnel alternative. Since some people could be interested in a tunnel, and given its current rating, the County recommended that it should remain so that the public can see details about why it may not be a viable option. The committee’s input on the tunnel will be shared with the Policy Group.

Vaughn asked the committee for suggestions about ways to communicate the complicated screening process in a way that is easy for the public to understand. Their ideas included:

- It’s important to clarify that the retrofit alternative will not be viable because construction would shut down I-5. Historic preservation interests will need to understand why this group of options was eliminated.
- Make graphics visually stimulating, simpler, and more appealing.
- Produce an interactive online chart that allows users to easily access levels of explanation of what the alternatives entail.

A committee member suggested that there should be a regional bridge authority district, so that bridge projects can be handled on a regional level. He also asked how other earthquake-prone areas are dealing with similar issues of retrofitting and building bridges. Steve responded that many of the large toll bridges in California, such as the San Francisco–Oakland Bay Bridge, was designed to withstand an earthquake and remain useable afterward.

Schedule Review

Heather discussed next steps. The Policy Group meeting is scheduled for August 23. Following that, the alternatives evaluation process will examine the remaining alternatives to identify the best solutions to move on to the NEPA process.

Sample evaluation criteria are currently being considered for future use. They will be discussed at the next SRG meeting.



Potential evaluation criteria

The committee was asked for input on the evaluation criteria, and what criteria are missing. The discussion raised these ideas:

- Aesthetic design criteria will not be considered during this feasibility study, but will be considered during the NEPA phase, or even after it. As an example, the Sellwood Bridge design was not determined until after NEPA. Steve said that the technical team is attempting to determine a baseline set of aesthetics so that concepts are evaluated on a level playing field.
- Maintenance will be considered as a criteria in the upcoming alternatives evaluation phase.
- Some of the evaluation criteria are duplicated from the scoring criteria (emergency response, for example), but there will be more data and ability to evaluate at each successive level of design.
- The ability of commerce to recover after an earthquake should be an important evaluation consideration.

Public Comment

There was no public comment at the meeting.

Closing Remarks

Vaughn and the project team thanked the committee for attending. The next SRG meeting will be in November.