



Stakeholder Representative Group Meeting #3

Meeting Summary

January 30, 2018
6:00–8:30 p.m.
Multnomah County Building
501 SE Hawthorne Blvd., Portland

SRG Members Present

Chris Dorin, *Neighborhood Emergency Teams*
Arthur Graves, *Multnomah County Bike/Ped
Advisory Committee*
Howie Bierbaum, *Portland Saturday Market*
Reid Decker, *Portland Saturday Market*
Dan Lenzen, *Old Town/Chinatown Community
Association*
Susan Lindsay, *Buckman Community
Association*

Josh Mehrer, *Univ. of Oregon architecture
student*
Sage Bolyard, *Burnside Skatepark*
Travis Williams, *Willamette Riverkeeper*
Ed Wortman, *Author of Bridge Stories*
Sharon Wood Wortman, *Author of Bridge
Stories*
Dennis Corwin, *Portland Spirit*
Nathaniel Brown, *Portland Business Alliance*

SRG Members Absent

Kathy Pape, *Central City Concern*
Marie Dodds, *AAA Oregon*
Mark Ginsberg, *The Street Trust*

Jana Jarvis, *Oregon Trucking Association*
Dan Yates, *Portland Spirit and Central Eastside
Industrial Council*

Staff and Consultants

Ian Cannon, *Multnomah County*
Megan Neill, *Multnomah County*
Mike Pullen, *Multnomah County*
Kim Peoples, *Multnomah County*
Heather Catron, *HDR*
Steve Drahota, *HDR*

Jeff Heilman, *Parametrix*
Andre Baugh, *AGB Group*
Mauricio Leclerc, *PBOT*
Jessica Pickul, *JLA Public Involvement*
Irene Kim, *JLA Public Involvement*

Members of the Public

Allen J. Wheeland
Councilor Cate Arnold, *Beaverton City Council*
Bill Meadowcroft, *Portland Rescue Mission*
Bonnie McLean, *NET Volunteer*
Brad Perkins, *Cascadia High Speed Rail*

Welcome and Introductions

Jessica Pickul, JLA, welcomed the committee, and informed members that she will be replacing the previous facilitator on the project, Vaughn Brown, who has retired. Jessica walked the committee through the meeting agenda and reminded them that the meeting was scheduled to go until 8:30 p.m. to make sure there was enough time to review the screening process and gather committee feedback. Committee members, County staff, and consultants introduced themselves. Megan Neill, Multnomah County Project Manager, thanked committee members for their continued interest in the project.

Project Update and Outreach

Heather Catron, HDR, summarized the key public outreach activities since the last SRG meeting. The project team has held several stakeholder briefings with community groups and partnering agencies to gain feedback on the options and screening results. Project briefings also provided the team with a better understanding of stakeholder interests. Mike Pullen summarized the Red Cross/KGW Keeping You Safe event and the Portland Saturday Market. Megan informed the committee that she participated in a podcast interview with Portland Tribune which helped to get the word out about the project in a new medium. Heather introduced the new fact sheet and let the group know that an online public briefing will launch in late February/ early March which will summarize the screening process to date.

*(Note: See **Appendix** for a full list of who has participated in stakeholder briefings and events)*

Screening Results

Heather recapped the five major option groups that were being considered with the screening process at the time of the last SRG meeting, and reminded the SRG of the two remaining options groups : Enhanced Seismic Retrofit and the Replacement Bridge.

Heather introduced Steve Drahota, HDR, to review the two options. Steve summarized the rebranded Enhanced Seismic Retrofit option, previously called the Hybrid option, and the Replacement option. The Enhanced Seismic Retrofit option is a partial replacement/ partial retrofit. This option would replace the section of the bridge over the freeway and railroad spans. A full retrofit was not feasible without removing large parts of I-5 and the railroad. The Replacement option would build a new crossing such as a high fixed bridge, low movable bridge, twin bridges or a tunnel. Steve clarified that the project team is not looking at a specific bridge type within this phase of the project. Bridge type and design will be discussed in the next phase of the project.

Steve summarized a sampling of the replacement options that the project team is analyzing, noting that many others not shown exist and are being considered during the evaluation process:

- A low movable bridge alignment that is similar to the existing bridge but with a slightly steeper grade.

- Two types of twin movable bridges: mode separated and multi-modal. Mode separated means bike and pedestrian facilities are on a separate structure while only motor vehicles are on the main bridge. Multi-modal means the twin bridges will carry all modes, requiring each bridge will be converted to a one-way street. Steve informed the committee that it's important to consider impacts on the existing street network, right-of-way, nearby cross streets, and then test those impacts against the evaluation criteria.
- A high fixed bridge option that looks at two different elevation options (97 and 120 feet clearances over the main Willamette River channel) which changes the profile grade and alignment depending on the height. One fixed bridge option is a couplet alignment on the east side, which forks and takes advantage of the couplet on Couch Street. Another example looks at a higher fixed bridge alignment on Burnside Street.
- A tunnel option, which did not score well but scored high enough in previous screening to warrant further analysis. The tunnel alignment may need to be extended out as far as NE 28th Avenue. Bike and infrastructure facilities would have to be outside the tunnel; otherwise, it would require a very large portal.

Steve reiterated that the team is looking into how the evaluation criteria will help to further analyze all the remaining options.

Jessica asked the committee if they had any questions or concerns. Committee members asked several questions:

- **What determines the depth and length of the tunnel?**
This option considered a 5% maximum grade (for Streetcar passage) and the size / location of the large pipes on either side of the Willamette River.
- **Is the 97' clearance based on the water level?**
The vertical clearance is measured from the Morrison Bridge datum. The 97' is a threshold number. Less than 97' would have the bridge landings conflict with the light rail vertical clearance envelope on the west side of the river. The actual vertical channel clearance required for ship navigation will be determined by a formal navigational study in the next phase of the project.
- **What's the clearance for the twin movable bridges?**
Depending on the type of movable bridge, there will either be infinite vertical clearance or adequate clearance based on a future navigational study. Further, depending on where the twin bridge is located (i.e. on the north or south side of the existing bridge) the profile will change to provide clearance over other physical features, such as the I-84 ramps to/from I-5. If built on the north side of the bridge, the profile gets higher in order for the bridge to clear the I-84 freeway ramps, which also means the bridge, would extend further on Burnside Street.
- **Will the bridge be movable after the Cascadia Subduction Zone earthquake?**
The seismic design criteria states that the bridge must be operable for vehicles immediately following the earthquake, and operable for vessels within weeks after an earthquake. Heather clarified that the vehicles crossing the bridge include emergency service vehicles and heavy haul vehicles carrying debris.

- **How do you get the energy required to open and close the bridge after an earthquake?**

Part of the design criteria requires that backup power be provided to raise and lower the bridge. In addition, manual operations have been included in the alternatives.

- **Why can't the bridge footings just be retrofitted instead of replaced?**

The soil underneath the bridge is liquefiable, meaning that the footings would require building large diameter shafts to avoid settlement. This type of retrofit would require removing parts of I-5 during construction. Replacing the spans over I-5 would have fewer construction impacts than the retrofit option.

- **The future types of ships using the river should be considered.**

The navigation study to be completed in future phases will look into this, as well as the types of vessels needed to load and unload supplies following an earthquake.

Options Evaluation

Heather recapped the preliminary screening process and let the committee know that the project is now in the evaluation phase which will further evaluate the performance of each option within six broad categories: seismic resiliency; non-motorized transportation; transportation connectivity; equity; built environment; and financial stewardship.

Committee members were provided a handout of the draft evaluation criteria. Heather reviewed the guiding principles for the evaluation criteria.

(Note: materials referenced are available at: <https://multco.us/earthquake-ready-burnside-bridge/project-library>)

Criteria #1: Seismic Resiliency

Steve summarized Criteria #1 Seismic Resiliency. Because the seismic design criteria establishes a minimum standard for all options to adhere to, the team is focusing on the functionality of the bridge after a catastrophic event for this criteria. Potential measures for Criteria #1 include looking at how vulnerable the bridge is to traffic or damage to the bridge from adjacent facilities, and the appropriate width and length required to prevent traffic bottlenecks. Jessica asked the committee to share thoughts or questions.

- **Are you considering efforts to retrofit unreinforced masonry buildings?**
We are assuming that nothing will be done regarding URM buildings within our analysis, and we are working independently from those efforts.
- **Are you considering how to manage access in and out of the bridge in the event of an earthquake to prevent confusion for drivers, bicyclists, and pedestrians?**
That is not considered in the criteria because we don't want to depend on third-party decisions about access when evaluating the options.

Criteria #2: Non-motorized Transportation

Jeff Heilman, Parametrix, summarized Criteria #2 Non-motorized Transportation, which looks at impacts on bikes, pedestrians, and people with disabilities. This criterion can be measured by

looking at how the profile grade affects every day non-motorized bridge use. The criterion is also measured by the safety and convenience between the bridge and other planned bike and pedestrian facilities, such as how the bridge connects to streets on either side, number and height of elevators, stairs, and ramps. In addition, this criterion measures the extent of personal security for pedestrians. Jeff asked the committee for any questions and comments.

- **Can we use direct bridge widths as a proxy for potential space for bike and pedestrian facilities?**

The designs and widths are still conceptual and so the current widths are not an accurate proxy for determining differences in the potential widths of bike lanes, paths or sidewalks. We are currently focusing on evaluating bike and pedestrian connectivity and safety issues. We will have more information in later phases to evaluate the specific width of bike and pedestrian facilities.

- **Are we considering street widths and configurations at the ends of the bridges?**

Yes, the configuration of intersections and street widths are part of the evaluation in this phase.

- **For the mode-separated, twin bridges, will both the bike/pedestrian bridge and the auto bridge accommodate bikes and pedestrians?**

That's not yet decided and will require more discussion and evaluation in the next phase.

- **Did you consider adding bike and pedestrian improvements to the enhanced retrofit bridge?**

The existing bridge has an hour-glass shape, so there is an option within the Enhanced Seismic Retrofit to widen the bridge so it is a consistent 110-foot width throughout the entire length of the bridge. This option provides the opportunity to enhance the bike and pedestrian facilities.

A Committee member commented that it's important to consider cargo bike access in terms of safety. Cargo bikes should be a prioritized mode of transportation, and it's important to think about in the early phases.

Criteria #3: Transportation System

Steve Drahota summarized Criteria #3 Transportation System. This criterion looks at how the option supports street system integration and function with all modes of transportation. Potential measures include how the options connect with the existing street network for all modes.

Another measure looks at how the alternatives affect safety and convenience of the street network at both ends of the bridge, especially if the bridge landings extend further along Burnside Street than its current location. It looks at how bridge openings cause delays in crossing times for all modes of transportation when comparing a movable and a fixed bridge. Jessica asked if the committee had any questions or comments.

A Committee Member suggested that the team consider economic impacts to Old Town and the existing businesses and industries and the economic impacts of creating access barriers for ships coming to the waterfront and downtown.

- **Can the bridge reach the navigable channel height and still be a movable bridge so that bridge lifts can happen less frequently. This could help large ships can get through in emergency situations.**

No, we have not considered that as part of this phase of the study. But we will be looking further into this issue during the next phase.

Criteria #4: Equity

Andre Baugh, AGB Group, summarized Criteria #4 Equity. This criterion is about minimizing adverse impacts to communities of concern and promoting transportation equity. The first potential measure addresses displacement and impacts to accessing existing social services, such as overnight shelters. For instance, elevating the bridge could create access barriers to or even the removal of buildings that provide social services and can also create opportunity costs. Another potential measure looks at how the options impact potential housing, including low-income, on both sides of the bridges. We can't know whether housing will be built or not in the future, but we need to capture the impact of lost opportunity in building housing. The last potential measurement looks at how the option impacts transportation access for communities of concern to existing services and businesses.

A member of the public had a question about whether flooding was a concern in the event of a major earthquake. The project team has not seen any evidence that flooding would occur after a seismic event.

Criteria #5: Built Environment

Jeff provided an overview of Criteria #5 Built Environment. This criterion looks at how the options affect existing land use. This measures the extent of permanent impacts to the context of existing buildings, such as blockage of views, light, or access, depending on the height and location of the bridge. Other potential measures include the number of commercial and industrial properties and long-term housing units that would be permanently displaced. This would also look at how much park and recreation land would be permanently displaced and potential impacts on the National Register of Historic Places resources and districts.

A Committee member commented that Skidmore/Old Town Historic District has building overlays that will need to be considered. A member of the public suggested that the team should consider maintaining important icons such as the Portland sign.

- **How do you value historic properties?**

That level of detail will happen during the next process. One measurement is seeing how buildings are contributing to the historic district. There are buildings that lie within the historic district but are not necessarily contributing to the historic character or significance of the district. We are seeking input from public agencies and other stakeholders.

A committee member commented that the team could show the impacted area from a fixed and a movable bridge by showing the height, length, and alignment. The committee member added that the overall impacts to the fixed bridge would be considerably larger than the impacts of a movable bridge. Steve responded saying that was relatively safe to say, but in terms of function, there's also a benefit to having a fixed bridge. Therefore, the project team is looking at all the impacts to every option.

Mike Pullen asked if impacts to the Burnside Skatepark are considered to the degree of other City of Portland parks. Jeff responded that the skatepark will be considered because it is a recreation facility, although it is not yet determined if it is a Section 4(f) resource.

A committee member asked if the character of the new bridge would be considered. Jeff responded the design and character of the bridge will be addressed at a later phase. Ian Cannon, Multnomah County, added that that level of detail related to the architecture will likely be discussed even beyond the next phase of the project.

Criteria #6: Financial Stewardship

Steve Drahota provided an overview of Criteria #6 Financial Stewardship. This is comprised of two potential measurements: (1) initial capital costs, and (2) the cost to maintain and operate the options over a 100 year life. To establish a cost, the team had to make some baseline assumptions about bridge widths.

A committee member commented that a movable bridge will clearly have more costs because anything that moves will break, which creates more maintenance costs. Steve generally agreed, but noted that fixed bridges could have a larger initial capital cost. The committee member added that at this level, decisions about costs and budgeting will come from the County, but at this point in the phase, the committee's main concern is the impact on communities and people on a day-to-day basis.

Ian added that there isn't a direct measurement of future social impact, but there are a number of ways to measure impacts on facilities and the historic district such as the footprint of potential impacts from the bridge.

A committee member added that a movable bridge can be more costly in the long run, but can also affect the tax base if buildings and jobs are displaced; so there's a need to look at the trade-offs of how money is spent.

One committee member commented that the video from the previous meeting was very telling in terms of how much damage a major earthquake could cause to the existing bridge. They asked if building concrete footings for a bridge is a sustainable solution because it might be vulnerable to future seismic events. Steve added that part of the evaluation criteria was making sure the bridge could withstand a catastrophic event and ensured that the bridge would still be standing. Sustainability will be an important consideration during the next phase.

Ian added that it seems there is a general concern from the committee about the impacts of a bridge with a larger footprint. It's great to hear these comments so we have more informed decision making as we move forward and come to a decision that the community can support.

A member of the public asked the team to be cautious of valuing historic buildings and character and the bridge's long-term impact on historic character and environmental context.

Another member of the public commented that one of the appeals of the Burnside Bridge is its openness and that we should be thoughtful about people who have difficulties with heights and enclosed spaces. They also added that the feel at the west side landing on Hawthorne Bridge does not feel pedestrian-friendly in terms of access and would hate to see the same happen on the Burnside Bridge.

A committee member suggested that the project consider commercial viability of impacted areas. Developers may avoid building if they know what's going to be built and the potential effects on building value and property takings.

Schedule Review

Heather walked the group through project next steps. The project team will refine criteria based on feedback from all the committees and stakeholders and will generally move forward with the criteria as it is now because we have not received input that will make substantial changes to it. The team will apply the criteria to the remaining options, and share the results to the SRG in April to get additional feedback. In May, the team will present the final alternative to the Policy Group and this summer to the general public for feedback via an online and an in-person event. Once the draft report is finalized, the final report will be presented to the Multnomah County Board of Commissioners for adoption. The County is continuing to seek funding for the next phase.

A committee member commented that the City of Portland has a 2035 plan and voted on criteria related to this project. They suggested that the project consider other City plans moving forward.

Public Comment

Members of the public provided comment throughout the meeting. There were no additional comments made during the Public Comment portion of the meeting.

Closing Remarks

Jessica reminded the committee about the online briefing that is launching in February and asked members to help promote the briefing. The team will also be making updates to the project website and will be in touch about the next SRG meeting in April. Jessica welcomed parting comments from meeting attendees and thanked the committee for their attendance and feedback.

A committee member advocated for a committee voting exercise at the end of the project to identify a preferred bridge option. Jessica responded that there would not be a formal voting process but encouraged the committee to share additional comments as the project moves forward.

Members thanked the team for creating a transparent process and for all of the work put into the project thus far.

Other considerations suggested by the committee:

- Important to consider indirect and future impacts.
- How can the bridge be utilized for emergency services in the event of a disaster?
- The Burnside Bridge will define the city and will be an important asset. It would be unfortunate to see the cost dominate the importance of the project.

Jessica thanked the committee for their feedback.



Appendix: Stakeholder Briefings

Over the past year, we have talked to more than 50 community groups, partnering agencies and elected officials about how to create an earthquake-resilient Burnside crossing. Community feedback is critical as we continue to refine options. This list will continue to grow as this project advances.

Community Groups/Non-profit Organizations

- Bridgetown Night Strike
- Buckman Community Association (SRG)
- Burnside Skatepark (SRG)
- Central City Concern (SRG)
- Historic Landmarks Commission
- JOIN
- Kerns Neighborhood Association
- Mercy Corps
- NAYA
- Old Town/Chinatown Community Association (SRG)
- OPAL (Organizing People/Activating Leaders)
- Portland Rescue Mission
- Professional Group of Engineers
- Sharon Wood Wortman (author of Bridge Stories) (SRG)
- The Street Trust (formerly Bicycle Transportation Alliance) (SRG)
- University of Oregon School of Architecture student (SRG)
- VOZ
- Willamette Riverkeeper (SRG)

Businesses/ Business Groups

- AAA Oregon (SRG)
- AMR (American Medical Response)
- Central Eastside Industrial Council (SRG)
- Louis Dreyfus Company
- Oregon Trucking Association (SRG)
- Portland Business Alliance (SRG)
- Portland Saturday Market (SRG)
- Portland Spirit (SRG)
- Saturday Market (SRG)

Government Agencies

- City of Beaverton (PG)
- City of Gresham (PG)
- City of Portland (PG)
- Clackamas County (PG)
- Federal Highway Administration (Oregon) (PG)
- Historic Landmarks Commission
- Metro (PG)
- Multnomah County Bike/Ped Advisory Committee (SRG)
- Multnomah County Disability Services Advisory Council
- Multnomah County (PG)
- Multnomah County Board of County Commissioners
- Multnomah County Health Department
- Multnomah County Office of Diversity and Equity
- Multnomah County Office of Emergency Management
- Multnomah County Sustainability
- Neighborhood Emergency Teams (SRG)
- ONI (Office of Neighborhood Involvement)
- Oregon Department of Transportation (Region 1) (PG)
- Portland Bureau of Transportation, City of Portland
- Portland Bureau of Development Services, City of Portland
- Port of Portland
- Portland Streetcar
- Prosper Portland (formerly Portland Development Commission) (PG)
- Regional Disaster Preparedness Organization, City of Portland
- TriMet (PG)
- US Army Corps of Engineers
- US Coast Guard
- Washington County (PG)



Earthquake Ready Burnside Bridge

Better. Safer. Connected.



Elected Officials

- Oregon State Representative Barbara Smith Warner (District 45) (PG)
- Oregon State Senator Kathleen Taylor (District 21) (PG)
- U.S. Representative Earl Blumenauer's office (PG)
- U.S. Representative Suzanne Bonamici's office (PG)
- U.S. Senator Jeff Merkley's office (PG)
- U.S. Senator Ron Wyden's office (PG)

Community Events

- Red Cross / KGW Keeping You Safe – "Prepare Out Loud"
- Portland Saturday Market