Environmental Justice Supplemental Memorandum

Multnomah County | Earthquake Ready Burnside Bridge Project

Portland, OR

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Earthquake Ready Burnside Bridge Environmental Justice Supplemental Memorandum

Prepared for

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Acronyms, Initialisms, and Abbreviations

ADA	Americans with Disabilities Act
API	Area of Potential Impact
EIS	Environmental impact statement
EPA	U.S. Environmental Protection Agency
EQRB	Earthquake Ready Burnside Bridge
FHWA	Federal Highway Administration
FR	Federal Register
NEPA	National Environmental Policy Act of 1969

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Executive Summary

The potential for disproportionately high and adverse impacts to (environmental justice) EJ populations was determined by considering the following factors:

- Concentrations of EJ populations within the affected environment
- An assessment of any Project-caused environmental impacts that would be predominantly borne by low-income and/or minority populations compared the non-minority or non-low-income population
- Project mitigations, enhancements, and offsetting benefits
- Anecdotal information gleaned from the public involvement process

Because the impacts and benefits to low-income and/or minority populations from the Refined Long-span Alternative would be very similar to the Draft EIS Long-span, the conclusion remains the same. The Refined Long-span Alternative is not expected to have disproportionately high and adverse impacts to EJ populations.

1 Introduction

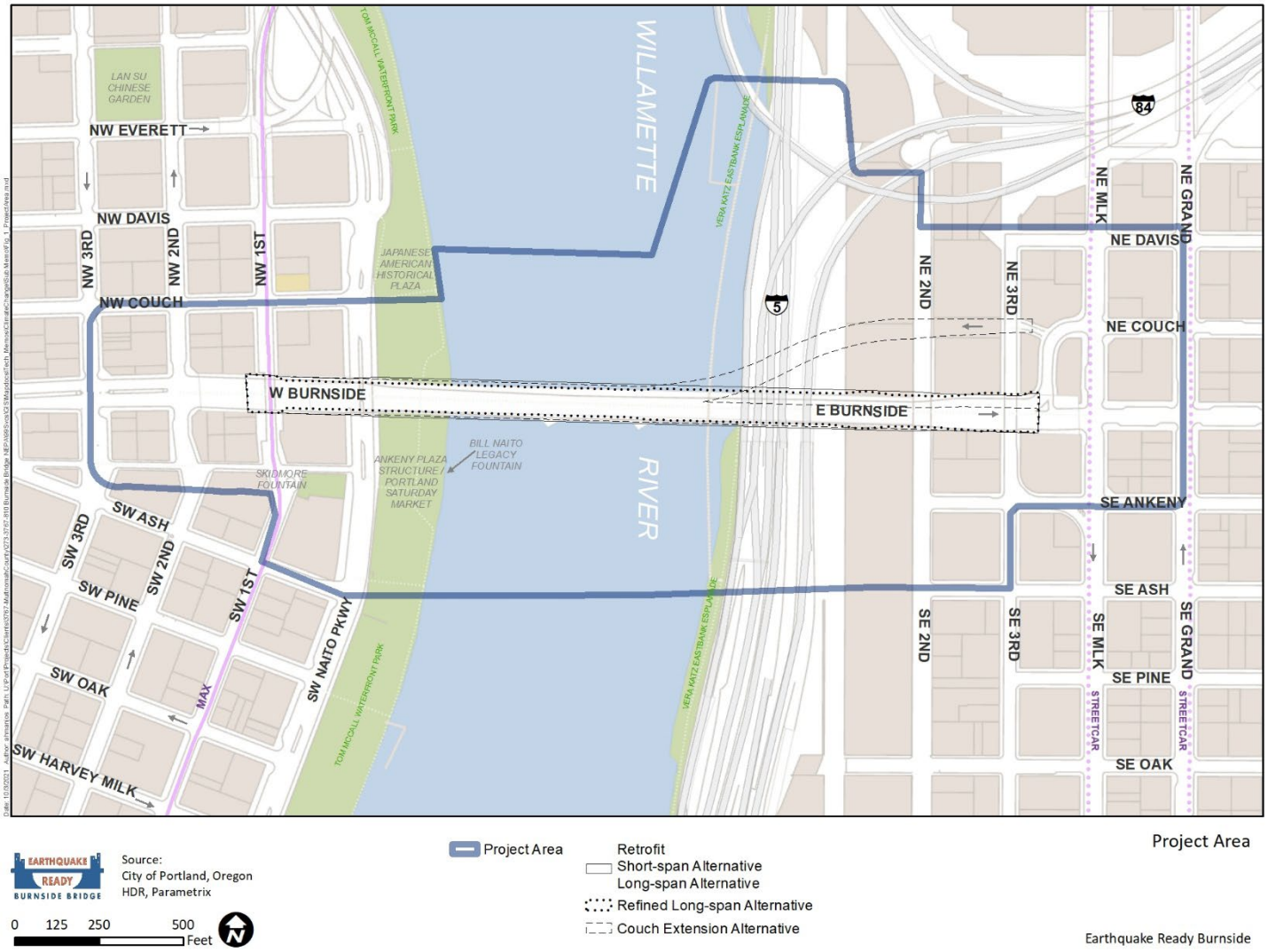
In support of the Supplemental Draft Environmental Impact Statement (SDEIS) for the Earthquake Ready Burnside Bridge (EQRB) Project (Project), this supplemental memorandum has been prepared to evaluate the impacts of potential design refinements to the Draft EIS Preferred Alternative to environmental justice (EJ) populations within the Project's Area of Potential Impact (API). The intent of the design modifications is to reduce the overall cost and improve the affordability of the EQRB Project. This memorandum is a supplement to the Draft EIS technical reports and as such does not repeat all of the information in those reports, but instead focuses on the impacts of the design modification options, how they compare to each other, and how they compare to the version of the Preferred Alternative that was evaluated in the *EQRB Draft Environmental Impact Statement* (Multnomah County 2021b).

Much of the information included in the Draft EIS and Draft EIS technical reports, including project purpose, relevant regulations, analysis methodology and affected environment, is incorporated by reference because it has not changed, except where noted in this technical memorandum.

1.1 Project Location

The Project Area is located within the central city of Portland. The Burnside Bridge crosses the Willamette River connecting the west and east sides of the city. The Project Area encompasses a one-block radius around the existing Burnside Bridge and W/E Burnside Street, from NW/SW 3rd Avenue on the west side of the river and NE/SE Grand Avenue on the east side. Several neighborhoods surround the area including Old Town/Chinatown, Downtown, Kerns, and Buckman. Figure 1 shows the Project Area.

Figure 1. Project Area



1.2 Project Purpose

The primary purpose of the Project is to build a seismically resilient Burnside Street lifeline crossing over the Willamette River that will remain fully operational and accessible for vehicles and other modes of transportation following a major Cascadia Subduction Zone earthquake. The Burnside Bridge will provide a reliable crossing for emergency response, evacuation, and economic recovery after an earthquake. Additionally, the bridge will provide a long-term safe crossing with low-maintenance needs.

2 Project Alternatives

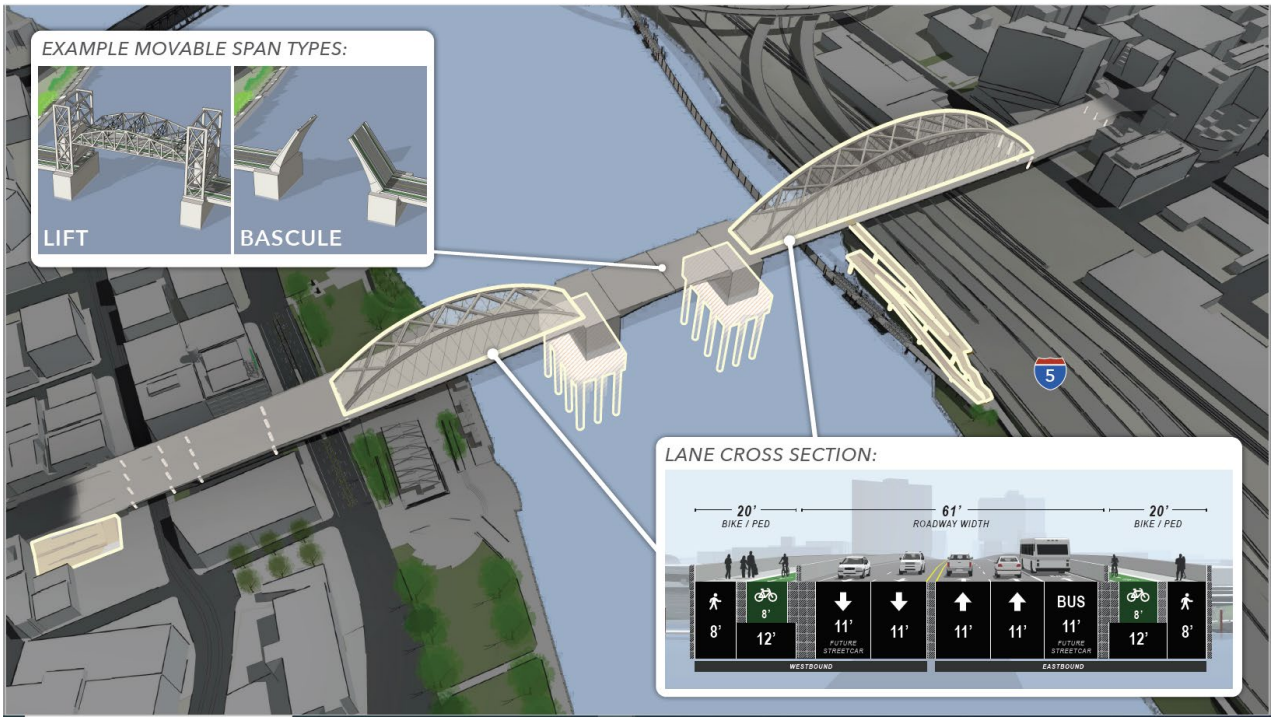
This technical memorandum evaluates potential design refinements to the Draft EIS Preferred Alternative. All of the Project Alternatives evaluated in the Draft EIS are summarized in Chapter 2 of the Draft EIS and described in detail in the *EQRB Description of Alternatives Report* (Multnomah County 2021a). Briefly, the Draft EIS evaluated a No Build Alternative and four Build Alternatives. One of the Build Alternatives, the Long-span Alternative, was identified as the Preferred Alternative. The potential refinements evaluated in this technical memorandum are collectively referred to as the Refined Long-span Alternative (Four-lane Version) or the Refined Long-span. The Refined Long-span includes project elements that were studied in the Draft EIS but have been modified as well as new options that were not studied in the Draft EIS. These potential refinements and new options are intended to provide lower cost and, in some cases, lower impact designs and ideas that could be adopted to reduce the cost of the Draft EIS Preferred Alternative while still achieving seismic resiliency. The potential design refinements, and how they differ from the Draft EIS Long span Alternative, are described below.

- Bridge width – The total width of the bridge over the river would be approximately 82 to 93 feet (the range varies depending on the bridge type and segment). For comparison, the Draft EIS Replacement Alternatives were approximately 110 to 120 feet wide over the river. The refined bridge width would accommodate approximately 78 feet for vehicle lanes, bike lanes, and pedestrians, which is comparable to the existing bridge.
    - The refined bridge design would accommodate four vehicle lanes (rather than five as evaluated in the Draft EIS). The following lane configuration options are being evaluated:
        - Lane Option 1 (Balanced) – Two westbound lanes (general-purpose) plus two eastbound lanes (one general-purpose and one bus-only lane)
        - Lane Option 2 (Eastbound Focus) – One westbound lane (general-purpose) plus three eastbound lanes (two general purpose and one bus only)
        - Lane Option 3 (Reversible Lane) – One westbound lane (general-purpose) plus two eastbound lanes (one general-purpose and one bus-only) plus one reversible lane (westbound AM peak and eastbound PM peak)

    - Lane Option 4 (General Purpose with Bus Priority) – Two westbound general-purpose lanes plus two eastbound general-purpose lanes, plus bus priority access (e.g., queue bypass) at each end of the bridge.
  - The width of the vehicle lanes would be, at minimum, 10 feet and could vary depending on how the total bridge width is allocated between the different modes.
  - The total width of the bicycle lanes and pedestrian sidewalks would be approximately 28 to 34 feet. This is wider than the existing bridge but narrower than what was described in the Draft EIS for the replacement alternatives. Physical barriers between vehicle lanes and the bicycle lanes would be in addition to the above dimensions.
  - The refined bridge would allow narrower in-water piers, due to less weight needing to be transferred to the in-water supports.
- Other design refinements being evaluated:
  - West approach – This memorandum evaluates a refined girder bridge type for the approach over the west channel of the river, Gov. Tom McCall Waterfront Park, and Naito Parkway. Compared to the cable-stayed and tied-arch options evaluated in the Draft EIS, this option would not only reduce costs but also avoid an adverse effect to the Skidmore/Old Town National Historic Landmark District. It would have two sets of columns in Waterfront Park compared to just one with the Draft EIS tied-arch option and five with the existing bridge.
  - East approach – This memorandum evaluates a potential span length change for the east approach tied-arch option that would minimize the risks and reduce costs associated with placing a pier and foundation in the geologic hazard zone that extends from the river to about E 2nd Avenue. The refined tied-arch option would be about 720 to 820 feet long and approximately 150 feet tall (the Draft EIS Long-span Alternative was the same height and 740 feet long). The refined alternative would place the eastern pier of the tied-arch span either on the east side of 2nd Avenue (Option 1) or just west of 2nd Avenue (Option 2). Increasing the length of the tied-arch span would also reduce the length and depth of the subsequent girder span to the east.
  - Americans with Disabilities Act (ADA) access – This memorandum evaluates a refined approach for providing direct ADA access between the bridge and the Vera Katz Eastbank Esplanade, as well as between the bridge and W 1st Avenue and the Skidmore Fountain MAX station. The Draft EIS evaluated multiple ramp, stair, and elevator options for these locations. This SDEIS memo evaluates a refined option that would provide enhanced ADA access at both locations using both elevators and stairs. These facilities would also provide pedestrian and potentially bicycle access. For the west end, there is also the potential for replacing the existing stairs with improved sidewalk access from the west end of the bridge to 1st Avenue.

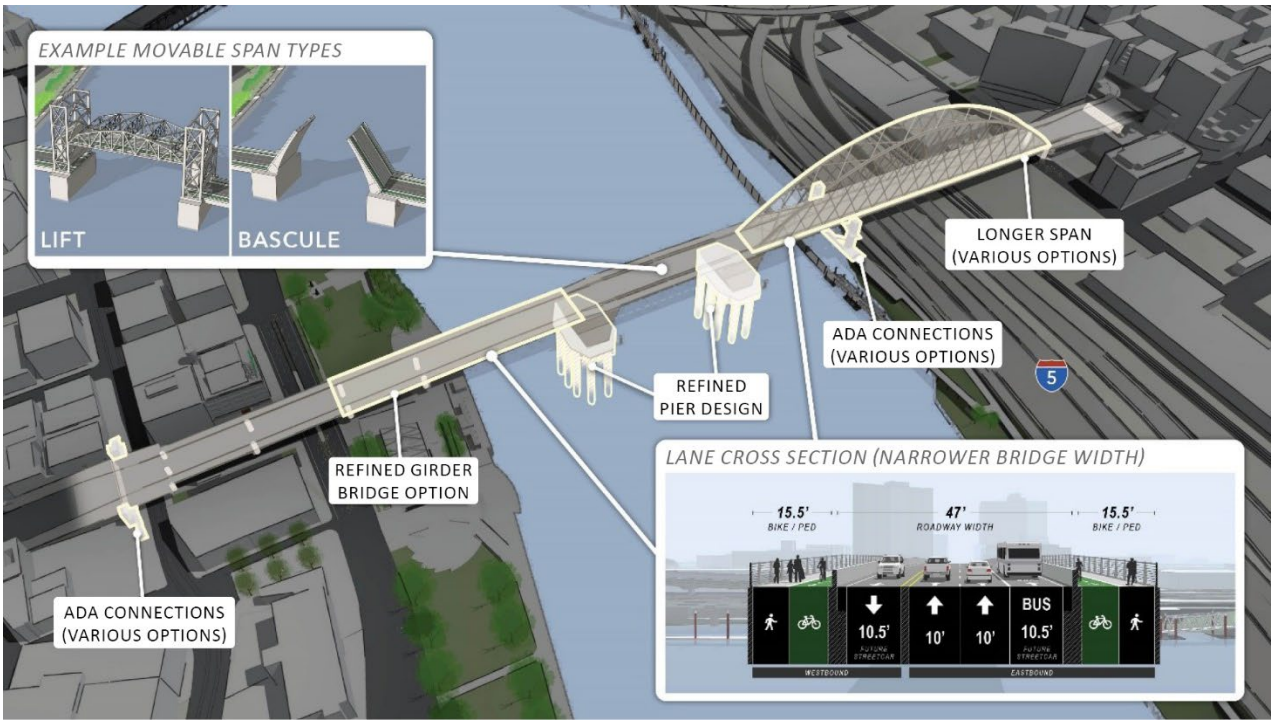
Figure 3 highlights the elements of the Draft EIS Long-span Alternative that have been modified to create the Refined Long-span Alternative, as described above. Figure 2 shows the Draft EIS Long-span Alternative and Figure 3 shows the Refined Long-span Alternative. Both figures include the tied-arch option for the east approach and the bascule option for the center movable span, but the east span could also be a cable-stayed bridge and the movable span could be a vertical lift bridge. For the west approach, the Draft EIS Long-span Alternative shows the tied-arch option while the Refined Long-span Alternative shows the refined girder bridge. The Refined Long-span Alternative image shows just one of the four possible lane configuration options being studied. All four configuration options, as well as more graphics of the Refined Long-span Alternative, and how it compares to the Draft EIS Long-span Alternative, can be found in Chapter 2 of the *EQRB Supplemental Draft Environmental Impact Statement* (Multnomah County 2022b). Figure 3 also shows just one of the possible ways to allocate the bridge width between vehicle lanes, bicycle lanes and sidewalks; the total width of the bicycle and pedestrian facilities could range from approximately 28 to 34 feet.

Figure 2. Draft EIS Long-Span Alternative



Note: The Draft EIS Long-span Alternative included multiple bridge types for both the east and west approaches. This figure shows only the tied arch option.

Figure 3. Refined Long-Span Alternative



Notes: The Refined Long-span Alternative evaluated in this SDEIS includes both cable-stayed and tied-arch options for the east span. This figure shows only the tied-arch option. The Draft EIS studied, and SDEIS further studies, a bascule option and vertical lift option for the center movable span. The inset shows both options but the main figure shows the bascule option. This figure also shows just one of the lane configuration options considered in the SDEIS.

- Construction assumptions:
  - Construction duration – The expected duration of project construction is 4.5 to 5.5 years, dependent upon the design option. See Table 1 for more information regarding construction impact extent and closure timeframes.
  - Construction area – Compared to the Draft EIS Long-span Alternative, the main refinement is that the construction area would be smaller for the west approach south of the bridge, including a smaller area within Gov. Tom McCall Waterfront Park south of the bridge.
  - Construction access and staging – The construction access and staging is expected to be the same as that described in the Draft EIS.
  - Vegetation – The Refined Long-span Alternative would remove slightly fewer trees and vegetation impacts than the Draft EIS Long-span Alternative, primarily within Gov. Tom McCall Waterfront Park south of the bridge.
  - In-water work activity – The in-water work would be similar to that described in the Draft EIS, except that the replacement bridge in-water foundations would consist of a perched footing cap and a group of drilled shafts. Whereas the Draft EIS discusses the use of cofferdams to isolate in water work, the Refined Long-span Alternative would use a temporary caisson lowered to an elevation about mid height of the water column to construct footing caps, avoiding additional disturbance of the riverbed that would needed for a cofferdam.

Additionally, the existing Pier 4 would be fully removed, Pier 1 would be partially removed below the mudline, and Piers 2 and 3 would be removed to below the mudline. Existing in water piles would be removed, subject to the design option advanced.

- Temporary freeway, rail, street, and trail closures – Temporary closures are expected to be the same as those described in the Draft EIS.
- Access for pedestrians and vehicles to businesses, residences, and public services – Access is expected to be the same as that described in the Draft EIS.
- On-street parking impacts – On-street parking impacts are expected to be the same as those described in the Draft EIS.
- Property acquisitions and relocations – Property acquisitions and relocations are similar to those listed in the Draft EIS, except that they have been modified to reflect a narrower set of bridge design options.
- Temporary use of Governor Tom McCall Waterfront Park – The park area that would be temporarily closed for construction has changed since the Draft EIS. On the north side of the bridge, the closure area has been reduced to avoid removing 10 cherry trees and a berm that are part of the Japanese American Historical Plaza; this change would apply to all of the build alternatives. On the south side of the bridge, the park closure area has also been reduced to include only the area north of the Gov. Tom McCall Waterfront Park trellis; this revision applies only to the Refined Long-span Alternative.

Table 1. Construction Impacts, Closure Extents, and Timeframes by Build Alternative

Facility Impacted	Draft EIS Long-Span Alternative	Refined Long-Span Alternative
Gov. Tom McCall Waterfront Park	4.5-year closure within boundary of potential construction impacts	Same; Smaller closure area south of the bridge
Willamette River Greenway Trail	Portion of trail within Waterfront Park closed for same duration as park; detours in place for construction duration	Same
Japanese American Historical Plaza	Southern portion of plaza would be closed for same duration as Waterfront Park	Same
Ankeny Plaza Structure	Closure for duration of construction but no impacts to Ankeny Plaza structure	Plaza structure would not be closed during construction or impacted
Bill Naito Legacy Fountain	No closure of fountain and associated hardscape	Same
Vera Katz Eastbank Esplanade	18 months (this could extend to 3.5 to 4.5 years if project builds ramps rather than elevators and stairs for the ADA/bicycle/pedestrian connection); detours in place for construction duration	Same

Facility Impacted	Draft EIS Long-Span Alternative	Refined Long-Span Alternative
Burnside Skatepark	4-month full closure	Same
River Crossing on Burnside Street	4- to 5-year closure	Same
Saturday Market Location	4.5-year closure or use of alternative location	Same
Skidmore Fountain MAX Station	Approximately 5 weeks	Same
Navigation Channel/Willamette River Water Trail	Intermittent closures; 2 to 10 closures; each closure up to 3 weeks	Same
Overall Construction Duration	4.5 to 5.5 years	Same

3 Definitions

3.1 Geographic Terminology

The following terminology is used when discussing geographic areas in the EIS:

- **Project Area** – The area within which improvements associated with the Project Alternatives would occur and the area needed to construct these improvements. The Project Area includes the area needed to construct all permanent infrastructure, including adjacent parcels where modifications are required for associated work such as utility realignments or upgrades. For the EQRB Project, the Project Area includes approximately a one-block radius around the existing Burnside Bridge and W/E Burnside Street, from NW/SW 3rd Avenue on the west side of the river and NE/SE Grand Avenue on the east side.
- **Area of Potential Impact (API)** – This is the geographic boundary within which physical impacts to the environment could occur with the Project Alternatives. The API is resource-specific and differs depending on the environmental topic being addressed. For all topics, the API will encompass the Project Area, and for some topics, the geographic extent of the API will be the same as that for the Project Area; for other topics (such as for transportation effects) the API will be substantially larger to account for impacts that could occur outside of the Project Area. The same API was used in the SDEIS as was used in the EQRB *Environmental Justice Technical Report* (Multnomah County 2021c). This API refers to a 0.5-mile buffer from the Project Area, denoting where environmental impacts are likely to occur as a result of the Project. Environmental effects are considered for all census geographies intersecting the API, even if partially located outside the 0.5-mile buffer.
- **Direct API** – The environmental justice analysis uses a Direct API, which refers to the broader geographic boundary outside of resource-specific APIs where construction-phase impacts such as traffic detours and diversion are likely to occur. Any effects outside of the Direct API are considered indirect environmental effects. The API and Direct API for environmental justice effects is shown in Figure 4 below.

Figure 4. Environmental Justice Area of Potential Impact

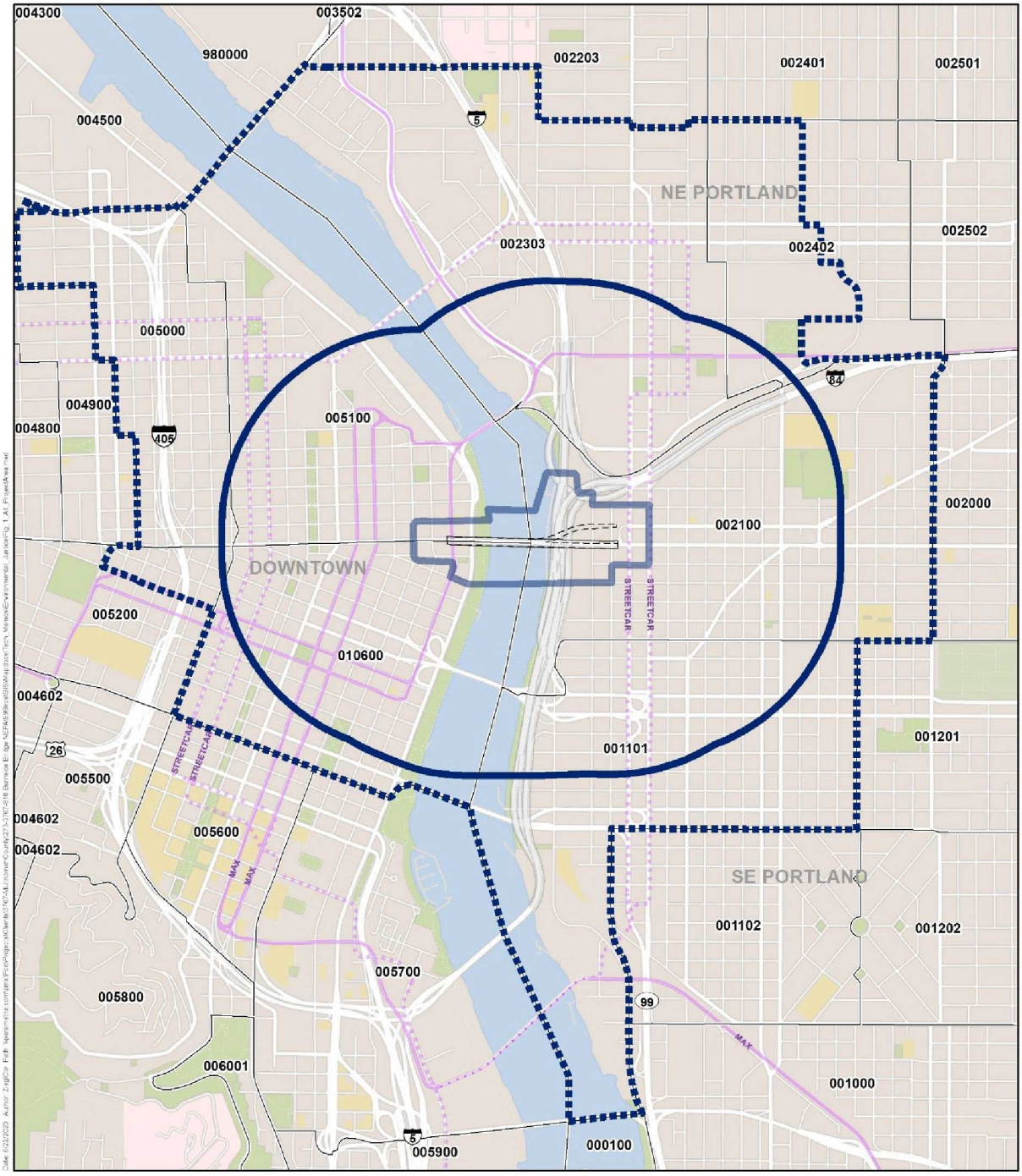


Figure 4
Area of Potential Impact (API)
Environmental Justice

Earthquake Ready Burnside

- **Project vicinity** – The environs surrounding the Project Area. The project vicinity does not have a distinct geographic boundary but is used in general discussion to denote the larger area, inclusive of the Old Town/Chinatown, Downtown, Kerns, and Buckman neighborhoods.

3.2 Demographic Terminology

The following terminology is used when discussing minority and low-income populations within the context of environmental justice.

- Environmental Justice Populations – Minority and/or low-income populations as defined in the DOT Order 5610.2C and FHWA Order 6640.23A on Environmental Justice. The FHWA Order provides the following definitions, which have been used in this analysis:
  - Minority Individual – A person who identifies as:
    - Black: a person having origins in any of the black racial groups of Africa;
    - Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
    - Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia or the Indian subcontinent;
    - American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
    - Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa or other Pacific Islands.
  - Low-Income Individual – Defined in the DOT Order 5610.2C and FHWA Order 6640.23A as a person whose household income is at or below the U.S. Department of Health and Human Services poverty guidelines. The U.S. Census defines low income as a person whose household income is at or below the U.S. Department of Health and Human Services poverty guidelines of $25,750 (2019 guidelines) for a family of four. For the purposes of this analysis, to account for a higher regional cost of living, the level for low-income is considered to be double this guideline, $51,500.[1] Doubling the guideline also helps account for future inflation and further increases in the regional cost of living.[2]

1 This methodology is consistent with demographic variables used by U.S. EPA EJScreen reporting, which utilizes 200 percent of the FPL. Detailed information about this methodology can be found in EPA EJ Screen Technical Documentation: https://www.epa.gov/sites/production/files/2017-09/documents/2017_ejscreen_technical_document.pdf

2 This methodology is also consistent with the Poverty in Multnomah County (2019) report developed by the Multnomah County Department of County Human Services and County Commission for Economic Dignity. The official poverty rate, which is defined as households with incomes below 100% of the Federal Poverty Level (FPL), is the only measure of poverty for which detailed and comprehensive data are available, but it significantly undercounts the number of people experiencing poverty. Many people with incomes above the official poverty rate are still unable to meet their basic needs, and many more

4 Relevant Regulations

There are no updated regulations for this SDEIS supplemental memo. All current relevant regulations are included in the EQRB *Environmental Justice Technical Report* (Multnomah County 2021c).

5 Analysis Methodology

No changes have been made to the analysis methodology for this SDEIS supplemental memo. Analysis methodology is described in the EQRB *Environmental Justice Technical Report* (Multnomah County 2021c).

5.1 Public and Stakeholder Outreach

As of the writing of this SDEIS, there have been four rounds of broad-based public and stakeholder outreach that have taken place between January 2019 to January 2022. For each of these engagement rounds, the public outreach team has contacted neighbors and organizations identified in the EQRB Diversity, Equity, and Inclusion (DEI) Plan to gather feedback around the needs and perspectives of those who belong to or serve EJ communities near the project area.

- Round 1 Engagement (January 2019 to September 2019) informed the public of the status of the Project and sought input on draft evaluation criteria that helped inform the selection of a preferred alternative and the refined bridge alternatives, including options for managing traffic during construction and the allocation of street space to be studied during the environmental review.
- Round 2 Engagement (January 2020 to September 2020) informed the public of the status of the Project and sought input on the Recommended Preferred Bridge Alternative and traffic management option during construction to be included in the Draft EIS in early 2021. The onset of the COVID-19 pandemic in Oregon beginning in March 2020 greatly affected the outreach strategy. The project team had to quickly adjust to digital and socially distant outreach measures. No tabling or in-person focus group events were held. The primary activities for this engagement were focused online, with an online open house and survey, a project webinar, and numerous virtual briefings with community organizations.
- Round 3 Engagement (December 2020 to February 2021) informed the public of the status of the Project and sought input on a range of possible bridge types and a list of evaluation criteria topics for comparing them. After receiving strong community support for the recommended Replacement Long-span as the Preferred Alternative for an earthquake ready Burnside Bridge, Multnomah County proceeded into the bridge type evaluation and selection. Due to the COVID-19 pandemic, no tabling or in-person events were held. The primary activities for this engagement were focused

do not have sufficient resources to achieve their full potential or participate as full and equal members of society.

online, with an online open house and survey, a project webinar, and numerous virtual briefings with community organizations.

- Round 4 Engagement (May 2021 to December 2021) informed and gathered stakeholder feedback on bridge types and cost-saving refinements for the Preferred Alternative that had been identified in the Draft EIS. The project team also asked for input from the public about the type of bridge that should be constructed including consideration of girder, truss, cable-supported, and tied-arch options, as well as bascule and lift options for the bridge's movable span. The primary engagement activities included an online open house and survey, a project webinar, discussion group meetings with members of communities identified in the project's DEI Plan, and numerous virtual briefings with community organizations, agencies, and neighborhood stakeholders.

For detailed information on the public and stakeholder outreach process and a complete summary of each of the EQRB outreach rounds, refer to the following documents:[3]

- EQRB Public Involvement Plan (Multnomah County 2019b)
- EQRB Diversity, Equity, and Inclusion Plan (Multnomah County 2019a), which also provides more information on the Multnomah County Community Engagement Liaisons Program.
- A detailed summary for each round of public and stakeholder outreach, including activities, findings, results, and demographics are documented in the following:
  - EQRB Public Engagement Summary (Round 1) (Multnomah County 2019c)
  - EQRB Public Engagement Summary (Round 2) (Multnomah County 2020)
  - EQRB Public Engagement Summary (Round 3) (Multnomah County 2021d)
  - EQRB Public Engagement Summary (Round 4) (Multnomah County 2022a)

5.1.1 Community Engagement Liaisons Program

Throughout the EQRB Project, Multnomah County has partnered with the Community Engagement Liaisons (CELs) Program to continue building relationships and engaging with currently and historically underserved and underrepresented communities, including EJ communities. The liaisons' efforts have engaged the Black and African American, Native American, Vietnamese, Chinese, Latinx, Japanese, Arabic, and Russian and Ukrainian communities. These communities were identified in the EQRB DEI Plan based on frequently spoken languages within a one-mile radius of the project area and/or because of historical and cultural roots in the project area. The CELs Program has also focused on tracking survey responses and participation from non-English-speaking and BIPOC[4] community groups (Spanish, Vietnamese, Chinese, Arabic, Japanese, Russian/Ukrainian, Black and African American, and Native American).

[3] Project documents available at the following website: https://www.multco.us/earthquake-ready-burnside-bridge/project-library

[4] Black, Indigenous, and people of color

Since the completion of the Draft EIS, the liaisons used online discussion groups and survey methods to help inform and gather input from their respective communities due to restrictions for in-person events during the COVID-19 pandemic. The online open house and surveys were translated by the CELs Program into six languages: Arabic, Simplified Chinese, Japanese, Russian, Spanish, and Vietnamese. For each of the four outreach rounds, CELs Program outreach resulted in the following responses from non-English-speaking and BIPOC participants:

- Round 1 – 182 responses
- Round 2 – 355 responses
- Round 3 – 210 responses
- Round 4 – 263 responses

5.1.2 SDEIS Outreach (2021)

Since the completion of the *EQRB Environmental Justice Technical Report* (Multnomah County 2021c), additional public and stakeholder outreach has been conducted by Multnomah County and the project team. The fourth round of public and stakeholder outreach took place from May to December 2021.

Public outreach was focused on gathering input on bridge types and cost-saving refinements for the Preferred Alternative, with an emphasis on hearing from participants belonging to or representing DEI and EJ communities. This community feedback informed the development of the Refined Long-span Alternative.

Due to the ongoing COVID-19 pandemic, the project team relied on online engagement methods as the primary way of reaching the general public and EJ populations.

45+	Briefings to agencies, individuals, and organizations
490+	Participants who attended briefings
8	Diverse Community Discussion Groups
4,100+	Unique visitors to the online open house and survey
1,500+	Survey responses
6	Language translations of the online open house and materials
150,184	Social media impressions
3,466	Project e-newsletter recipients
148	Text message recipients
596	YouTube video views
10	News releases and e-newsletters (from the project and other organizations)
20	Media stories

Figure 5. SDEIS Outreach Participation Summary.

Source: EQRB R4 Engagement Summary (Multnomah County 2022a)

Online engagement methods consisted of an online open house and survey and a project webinar. The project team also conducted more direct virtual outreach by holding discussion group meetings with members of EJ communities identified in the project's DEI plan. The project team also held numerous virtual briefings with community organizations, agencies, and neighborhood stakeholders to gather feedback on potential

design modifications and cost-saving measures for the Preferred Alternatives. A participation summary for SDEIS outreach is shown in Figure 5.

Community Briefings

Public and stakeholder outreach since completion of the Draft EIS has primarily consisted of online, small group meetings given public health concerns from the ongoing COVID-19 pandemic. Table 2 below summarizes stakeholder meetings that have occurred since the Draft EIS as of this writing.

Table 2. Public and Stakeholder Community Briefings (2021)

Date	Stakeholder	EJ Considerations
May 14, 2021	Burnside Skatepark	None applicable
May 27, 2021	Oregon Walks	None applicable
July 1, 2021	Multnomah County Sustainability and Innovation Committee	None applicable
July 13, 2021	Portland Planning and Sustainability Commission	None applicable
July 14, 2021	Portland Bicycle and Pedestrian Advisory Committee	The committee discussed how considerations around EJ populations were factored into cost savings for the Refined Long-span Alternative. The Project has emphasized ADA improvements and the preservation of transit access as a result of EJ considerations.
July 22, 2021	Portland Rescue Mission	PRM discussed potentially improved ADA connections from the bridge to the Skidmore Fountain MAX station and Eastbank Esplanade, which are expected to benefit PRM clients, a majority of whom are low-income, homeless/houseless, and/or minority individuals. Improved access would also facilitate ADA access to PRM services. PRM expressed support for the sidewalk improvements, elevator, and stairs.
August 17, 2021	Disability Rights Oregon	Potential for improved ADA connections from the bridge to the Skidmore Fountain MAX station and Eastbank Esplanade would be anticipated to benefit ADA users, including people living with disabilities who are also low-income or minority persons.
August 23, 2021	Multnomah County Office of Diversity and Equity	None applicable
September 15, 2021	Burnside Skatepark	None applicable.

Date	Stakeholder	EJ Considerations
September 15, 2021	TriMet Committee on Accessible Transportation	The committee provided input on potential upgrades to ADA access between the bridge, the Skidmore Fountain MAX station, and the Eastbank Esplanade. The committee helped refine options considered in the Draft EIS (including a combination of elevators, ramps, and stairs) to the SDEIS refined option, which uses both elevators and stairs. These facilities would also provide improved pedestrian and potentially bicycle access for all users, including EJ populations. The committee noted that while elevators are more accessible, stairs may be more reliable in a post-earthquake scenario.

ADA = Americans with Disabilities Act; EJ = environmental justices; PRM = Portland Rescue Mission; SDEIS = supplemental draft environmental impact statement

Additional EJ outreach to share and gather input on the potential refinements to the Draft EIS Preferred Alternative included:

- November 2021 – Portland Parks and Recreation – Accessibility Committee meeting – briefing with ADA advocates
- December 8, 2021 – Social Services/DEI Working Group meeting – The working group is composed of social service providers and people representing underserved populations. On this occasion, the group met to discuss and provide input on the proposed cost-saving refinements to the Preferred Alternative, with a focus on gathering feedback from DEI, EJ, and social services stakeholders.
    - The working group members included individuals representing NAACP PDX, Because People Matter, Big Through Projects, Mercy Corps Northwest, Portland Rescue Mission, Janus Youth Programs, Central City Concern, and Union Gospel Mission.
    - The meeting agenda included an overview of proposed cost-saving refinements, west approach bridge type, movable-span bridge type, bridge width, lane configurations, community engagement, connections to the Skidmore Fountain MAX Station and Vera Katz Eastbank Esplanade, and construction impacts.
    - The working group provided input on proposed cost-saving refinements including potential changes to the overall width of the bridge, the bridge and movable-span types being considered, and potential impacts resulting from construction.
    - Social service providers noted that few people typically camp under the bridge given a high exposure to the elements. The group noted that very few people (five to six) will sometimes camp on SW 1st Avenue under the bridge. Social service providers also confirmed that the Night Strike program is back to operating a weekly evening program for the homeless under the bridge in Gov. Tom McCall Waterfront Park.
- November/December 2021 – Emailed organizations that represent EJ populations to encourage them to learn and share input through the online open house and survey open from November 12 to December 14, 2021.

- The interested parties list included over 40 groups and organizations representing DEI and EJ populations, including but not limited to:
  - Multnomah County Office of Homeless Services, Department of Community Justice, Disability Services Advisory Council, Senior Advisory Council, Youth Commission
  - APANO
  - Asian Health and Services Center
  - Bridgetown Night Strike (Because People Matter)
  - Central City Concern
  - Coalition of Communities of Color
  - Multnomah County
  - Elders in Action
  - Hispanic Chamber
  - Home Forward
  - Homeless Veterans Center
  - IRCO
  - Janus Youth Programs
  - Mercy Corps
  - NAACP
  - NARA
  - NAYA
  - OPAL/YEJA
  - Portland African American League Forum (PAALF)
  - Portland Rescue Mission
  - Portland Police Bureau Service Coordination Team
  - Ride Connection
  - Rose Haven
  - Salvation Army Female Emergency Shelter
  - Sisters of the Road
  - TriMet LIFT Paratransit Service
  - Union Gospel Mission
  - Urban League of Portland
  - Vancouver Avenue Baptist Church
  - VOZ

- Email invitations included links to the online open house at burnsidebridge.participate.online where visitors could learn about and provide input on cost saving measures for the preferred alternative.
- The website landing page and online open house were also provided in seven different languages including Spanish, Vietnamese, and Russian.

Discussion Groups

The purpose of the discussion groups was to engage in direct dialog with communities in addition to the online surveys. Effort was made to differentiate comments made by individuals belonging to or representing EJ populations, including BIPOC community members. Each community had one session with 6 to 12 people, and each participant received a $35 gift card for their time.

The content covered in the discussion groups was adapted from the online open house and survey questions. Information was shared using a PowerPoint presentation. Key takeaways for each discussion question are listed below:

1. Please tell us about how you use the Burnside Bridge (commute to work, weekends, via car, transit, walking, etc.?)
   - Most participants, across all communities, primarily use a car when crossing the Burnside Bridge.
   - Some participants use public transportation, and a few walk or bike across the bridge.
   - A participant from the Native American community visited the skatepark as a teen and currently visits with their children.
2. What do you think about the cost-saving strategies we have talked about today? Do they make sense? Do you have questions about them? Please explain.
   - Some participants were concerned about narrowing roads and removing a vehicle lane, ultimately increasing traffic congestion, and advised against those cost-cutting measures.
   - Some participants preferred to postpone construction to allow time to find more funding to build a wider bridge.
   - Some participants shared safety concerns if costs were scaled back.
   - Some Latinx participants suggested working with large companies downtown to provide additional funding.
   - The Japanese participants unanimously agreed with removing a vehicle lane.
   - Native American community members expressed concern about neglecting environmental mitigation efforts due to cost-cutting.
   - African American participants shared an interest in securing the necessary funding to design a bridge that mitigates traffic congestion, provides ample vehicle space, and considers future population growth.
   - Vietnamese participants were largely in support of the cost-saving strategies.

3. Should the County only be able to fund a four-lane bridge, which of the lane configurations would you prefer? Please explain your answer.
    - Most participants preferred the reversible lane option, including most Japanese, Black, and Vietnamese participants.
    - Most participants from the Chinese and Russian communities preferred the balanced option. The Chinese participants preferred this option because they felt it is important to have lanes in both directions and a dedicated bus lane for those who commute on public transit.
    - Some participants preferred whichever was the least expensive option.
    - Some participants shared that the options that preserve the bike lanes are important.
4. What do you think about the bridge-type recommendations for a girder structure type on the west side and a bascule movable-span over the river? Do these recommendations make sense? Do you have any questions about them and why they are being recommended?
    - Most participants agreed on the recommendation for a girder structure on the west side and bascule movable-span over the river to save on costs and provide an open view of the city skyline.
    - Native American participants shared concern about environmental impacts to the river and the impact on downstream communities. Aesthetics were of least concern to this group.

Additionally, the Black and Native American groups prompted discussion around past harms for their communities. Participants in the Native American discussion group shared feedback that the idea of cost-cutting was particularly triggering to their community. This group was very concerned that cost-cutting measures will mean less mitigation for the natural environment and more harm to water quality, fish, wildlife, and vegetation.

Participants in the Black discussion group expressed concerns about mental health impacts related to the increase of traffic congestion in the metropolitan area and the necessity to build a bridge that accommodates community needs. Some participants expressed frustration that cost-saving refinements were needed for the Project given the urgency to build a bridge that could accommodate more emergency response vehicles and personnel that could be influential in saving lives.

Webinar

The project team hosted a public webinar on Wednesday, December 1, 2021. The purpose of the webinar was to:

- Provide a supplemental or alternative way to learn about the cost-saving refinements to the Preferred Alternative and provide feedback.
- Provide an opportunity to virtually meet and interact with the project team, especially because of restrictions to in-person events.

- Provide an opportunity for people to ask questions directly to the project team and get answers in real-time, especially for individuals who do not belong to an organization that may have already received a briefing.

The event was hosted on Zoom and livestreamed to YouTube for greater accessibility. It was promoted with a news release, social media posts, and an e-newsletter. A total of 28 participants joined the Zoom meeting and four viewers tuned in to watch the YouTube livestream.

A recording of the webinar is available to view on Multnomah County's YouTube channel. As of January 31, 2022, the webinar recording had 32 views.

Key questions and comments received:

- Questions about the likelihood of receiving federal funding from the Infrastructure Investment and Jobs Act.
- Understanding bike and pedestrian space requirements on each side of the bridge.
- Clarification about sufficient space needed between bicyclists and vehicle lanes.
- Interest in which modes of travel will be prioritized after an earthquake.
- Question about bridge design options to separate bike and pedestrian spaces.
- Interest in accessible connection options to the Vera Katz Eastbank Esplanade.
- Question about how the middle movable span will be operated. Question about the speed limit for the new bridge design.
- Interest in how the project will align with Multnomah County's Climate Action Plan.
- Suggestion to use a road zipper truck for the reversible vehicle lane allocation.
- Question about using electronic tolling as an option to fund the Project.

Online Open House and Survey

The online open house and survey featuring the cost-saving refinements to the Preferred Alternative were available to the general public from November 12 through December 14, 2021. This online activity provided an opportunity for people to learn about the status of the Project and review and provide input on the proposed refinements. The online open house included an overview video about the status of the Project and proposed refinements, captioned in seven languages.

The online open house and survey received over 4,000 visitors and over 1,500 responses. The survey included a mix of multiple-choice qualitative and open-ended questions. It also requested users' travel mode and demographic information. The online open house and survey were translated by the CELs Program into six languages: Arabic, Simplified Chinese, Japanese, Russian, Spanish, and Vietnamese.

Questions and Survey Results

A total of 1,509 people responded to the Round 4 cost-saving measures survey; similar to the level of engagement with the previous survey opportunity in early 2021. Neither of

the online surveys conducted in 2021 achieved the level of participation reached during the 2020 online survey, which sought input on recommending a preferred alternative.

A summary of the survey questions and results is provided below:

1. Given the cost savings, do you think that removing a vehicle lane makes sense? (Yes/No; Please explain why or why not).
    - *A total of 1,496 participants responded to this question. Overall, 49 percent strongly agreed or agreed with removing a vehicle lane. Nine percent were neutral, and 42 percent strongly disagreed or disagreed.*
2. Each of the four-lane configuration options has traffic and transit operations that are different from the existing five-lane bridge we have today. Should the county only be able to fund a four-lane bridge, which of the following would you prefer? (Please explain)
    - *A total of 1,446 participants responded to this question. Overall, 64 percent preferred Option 3: Reversible Lane. Thirty percent preferred Option 1: Balanced, 25 percent preferred Option 4: Bus Queue Jumps (i.e., expedited lanes for buses at the intersections on either side of the bridge), and 10 percent preferred Option 2: Eastbound Focus.*
3. Given the cost savings, do you think that adjusting the bike and pedestrian widths from 20 to 14-17 feet makes sense? (Strongly Agree – Agree – Neutral – Disagree – Strongly Disagree)
    - *A total of 1,491 participants responded to this question. Overall, 63 percent strongly agreed or agreed with adjusting the bike and pedestrian widths to 14 to 17 feet. Thirteen percent were neutral, and 24 percent strongly disagreed or disagreed*
4. Given the cost savings and open views, do you agree with the girder structure type recommendation for the west approach? (Strongly Agree – Agree – Neutral – Disagree – Strongly Disagree)
    - *A total of 1,469 participants responded to this question. Overall, 68 percent strongly agreed or agreed with selecting a girder structure for the west approach. Twenty-four percent were neutral, and 8 percent strongly disagreed or disagreed.*
5. Given the cost savings and reduced environmental impact, do you agree with the recommendation for a bascule movable bridge-type instead of the vertical lift option? (Strongly Agree – Agree – Neutral – Disagree – Strongly Disagree)
    - *A total of 1,477 participants responded to this question. Overall, 80 percent strongly agreed or agreed with a bascule movable-span type. Seventeen percent were neutral, and 3 percent strongly disagreed or disagreed.*

Survey Results in Languages other than English

Results from the surveys completed in languages other than English were compared to the aggregate results of all survey respondents. Overall, results from surveys completed in languages other than English were fairly similar to the total responses.

Demographic Results

Of all 1,509 participants, 67 percent identified as White/Caucasian. The next largest participating demographic groups were those who identified as Asian (10 percent) and Hispanic/Latinx (6 percent). The remaining participants identified as Slavic (3 percent), African American/Black (2 percent), Indigenous North American (2 percent), Middle Eastern (2 percent), Native Hawaiian or Pacific Islander (1 percent),) and prefer to self-describe (2 percent). Some participants preferred not to answer (12 percent).

6 Affected Environment

The affected environment as described in the *EQRB Environmental Justice Technical Report* (Multnomah County 2021c) has not changed.

7 Impacts from the Design Modifications and Comparison to Draft EIS Alternatives

7.1 Introduction

Most of the impacts to EJ populations would be the same for the Refined Long-span Alternative as are described in the Draft EIS for the Draft EIS Long-span Alternative, including:

- Post-earthquake impacts
- Impacts from off-site staging areas
- Indirect impacts

The pre-earthquake impacts and the temporary construction impacts of the Refined Long-span Alternative would be very similar to the impacts described for the Draft EIS Long-span Alternative. Table 3 below summarizes design elements of the Refined Long-span Alternative that are different than the Draft EIS Long-span Alternative, and that have the potential to result in disproportionately high and adverse impacts on EJ populations. The table also provides a brief description of these impacts compared to the Draft EIS Long-span Alternative and the No-Build Alternative.

Table 3. Summary of Potential Design Refinements and Impacts on Environmental Justice Populations

Refined Long-Span Alternative	How the refinement affects impacts to EJ Populations as compared to the Draft EIS Long-span and No-Build or Existing
Bridge Width – The total width of the bridge over the river would be approximately 82 to 93 feet (range varies with bridge type and segment); by comparison, the Draft EIS Replacement alternatives were approximately 110 to 120 feet wide over the river. The refined bridge width would accommodate approximately 78 feet for vehicles lanes, bike lanes and pedestrians, which is comparable to the existing bridge.	• A narrower shaded area over Waterfront Park and the Eastbank Esplanade compared to the Draft EIS Long-span would create a more open feel under the bridge. • Narrower pedestrian and bike lanes could increase the potential risk for pedestrian/bike interactions compared to the Draft EIS Long-span Alternative, which could affect accessibility and usage.
Lane Configuration – The refined bridge design would accommodate four vehicle lanes (rather than five as evaluated in the Draft EIS). Several different lane configuration options are being evaluated, including eastbound bus priority (Options 1–3) and queue jumps (Option 4).	This option could reduce reliability for bus riders needing to make connections on time or accessing services on either side of the bridge compared to existing lane configurations and the Draft EIS lane configurations.
Bicycle and Pedestrian Lanes – The total width of the bicycle lanes and pedestrian sidewalks would be approximately 31 feet. This is wider than the existing bridge but 9 feet narrower than what was described in the Draft EIS for the Replacement Alternatives. Physical barriers between vehicle lanes and the bicycle lanes would be in addition to the above dimensions.	Narrower pedestrian and bicycle lanes could increase the potential risk for pedestrian/bike interactions which could affect accessibility and usage compared to the Draft EIS Long-span Alternative. The Refined Long-span Alternative provides more space than the No-Build Alternative but narrows the amount of space available by 9 feet from the Draft EIS Long-span Alternative.
West Approach – The Refined Long-span Alternative considers a girder bridge type for the approach over the west channel of the river, Waterfront Park, and Naito Parkway. Compared to the cable-stayed and tied-arch options evaluated in the Draft EIS, this option would reduce costs and avoids an adverse effect to the Skidmore/Old Town National Landmark Historic District. The west approach would include two sets of columns in Waterfront Park compared to just one with the tied-arch option and five with the existing bridge.	• A reduction in the number of columns in Waterfront Park compared to the existing bridge would improve real and perceived safety under the bridge by creating a more open feel and improving sightlines and visibility. • Avoidance of an adverse effect to the Skidmore/Old Town National Historic Landmark District is considered a benefit to EJ populations who reside in and access the area. • The Draft EIS Long-span places one support along Naito Parkway. The Refined Long-span Alternative includes an additional pier reducing open space in the park. But the Refined alternative provides more open space than the No-Build Alternative which has five columns.

Refined Long-Span Alternative	How the refinement affects impacts to EJ Populations as compared to the Draft EIS Long-span and No-Build or Existing
ADA Access to other facilities – This memo evaluates an option to provide ramp/stair access between the bridge and the Esplanade. It also evaluates a ramp/stair option and an improved sidewalk option for upgraded access between the bridge and W 1st Avenue including the Skidmore Fountain MAX station. The Draft EIS evaluated multiple ramp, stair, and elevator options for the Esplanade connection and evaluated potential ramp/stair options for 1st Avenue. For the Esplanade connection, the Project could also reconnect the City's existing stairway and allow any upgraded connections to be implemented by the City as a separate, future project.	• New stairs and elevators would improve access and connections for all users, including EJ populations. • Esplanade ramps or elevators on both sides of the bridge would provide access to both travel directions, increasing accessibility. • Elevators have security and reliability concerns. Ramps have a much larger footprint and have security and safety concerns (an Esplanade connection ramp would be a long climb or descent (about 1,000 feet long) which could discourage some users). This could adversely affect accessibility for some users, including EJ populations.
Construction area – Revised construction area south of the west end of the bridge within Waterfront Park has a smaller footprint than described in the Draft EIS.	Smaller Boundary of Potential Construction Impacts on the south side of bridge means less area would be closed during full construction period. More space would be available for park users, including EJ populations.
Construction duration – The expected duration of project construction is 4.5 to 5.5 years, dependent upon the design option. See Table 1 for more information regarding construction impact extent and closure timeframes.	No difference in impacts to EJ populations compared to the Draft EIS Long-span Alternative.
Construction access and staging – The construction access and staging is expected to be the same as that described in the Draft EIS.	No difference in impacts to EJ populations compared to the Draft EIS Long-span Alternative.
Temporary use of Governor Tom McCall Waterfront Park – Temporary use of the park is expected to be the same as that described in the Draft EIS on the north side of the bridge. On the south side of the bridge, the impacted space has been reduced to an area north of the Waterfront Park trellis.	No difference in impacts to EJ populations compared to the Draft EIS Long-span Alternative.
Property acquisitions and relocations – Property acquisitions and relocations are similar to those listed in the Draft EIS, except that they have been modified to reflect a narrower set of bridge design options.	No difference in impacts to EJ populations compared to the Draft EIS Long-span Alternative.
Access for pedestrians and vehicles to businesses, residences, and public services – Access is expected to be the same as that described in the Draft EIS.	No difference in impacts to EJ populations compared to the Draft EIS Long-span Alternative.
Vegetation – the Refined Long-span would remove slightly fewer trees and have fewer vegetation impacts than the Draft EIS Long-span, primarily within Waterfront Park south of the bridge.	No difference in impacts to EJ populations compared to the Draft EIS Long-span Alternative.

Refined Long-Span Alternative	How the refinement affects impacts to EJ Populations as compared to the Draft EIS Long-span and No-Build or Existing
Temporary freeway, rail, street, and trail closures – Temporary closures are expected to be the same as those described in the Draft EIS.	No difference in impacts to EJ populations compared to the Draft EIS Long-span Alternative.

7.2 Environmental Justice Impacts

The following sections describe the impacts of the Refined Long-span Alternative on EJ populations. Impacts that would be the same as those for the Draft EIS Long-span Alternative are not repeated in this supplemental technical memorandum and are incorporated by reference.

The impacts described in the subsequent sections generally refer to a pre-earthquake scenario, as post-earthquake impacts are the same as the Draft EIS Long-span Alternative. Therefore, impacts refer to temporary and long-term impacts to EJ populations that would be produced as a result of constructing the Refined Long-span Alternative.

7.2.1 Governor Tom McCall Waterfront Park Users

The Refined Long-span Alternative considers a girder bridge type for the approach over the west channel of the river, Gov. Tom McCall Waterfront Park, and Naito Parkway. The west approach would include two sets of columns in Waterfront Park compared to just one set of columns with the Draft EIS Long-span Alternative and five sets of columns with the existing bridge. Figure 6 through Figure 9 below display a conceptual rendering of the columns in Waterfront Park, viewing north from the Ankeny Pump Station. Figure 6 shows the existing bridge; Figure 7 and Figure 8 show bridge options described in the Draft EIS Long-span Alternative (tied-arch and cable-stayed options), and Figure 9 shows the girder bridge type described as part of the Refined Long-span Alternative.

The Refined Alternative would reduce the existing number of columns in Waterfront Park from five sets to two. The removal of three sets of columns, in combination with the narrower shaded area over Waterfront Park due to a reduction in overall bridge width, would increase the amount of usable recreational space under the bridge compared to existing and No-Build conditions. The narrower bridge and reduction in the number of columns would also provide more natural light, reduce “blind spots” under the bridge, and contribute to a more open feel for users and events and activities hosted under the bridge. However, it is important to note that the Refined Long-span Alternative would include one additional set of columns compared to the Draft EIS Long-span Alternative.[5]

A reduction in the number of columns in Waterfront Park over existing and No-Build conditions is considered a benefit to EJ populations that access Waterfront Park, although

[5] Compared to the cable-stayed and tied-arch options evaluated in the Draft EIS, this the girder bridge option would reduce costs and avoid adverse impacts to the nearby Skidmore/Old Town National Historic Landmark District. The avoidance of these impacts is considered a benefit to all people who access the district, including EJ populations.

to a slightly lesser degree than the Draft EIS Long-span Alternative. The main benefits to EJ populations would be increased recreational space in the park, more natural light, and improved sightlines and visibility under the bridge. A more open feel under the bridge is considered a real and perceived safety benefit for all users, including EJ populations. Improved safety under the bridge would also benefit social service providers that provide direct assistance to EJ populations such as Night Strike who distributes free meals to low-income and minority populations who access or camp in the area under the bridge.

Figure 6. Existing Bridge – View from Ankeny Pump Station (five sets of columns)

Figure 7. Draft EIS Long-Span Alternative – Tied-Arch (one set of columns)

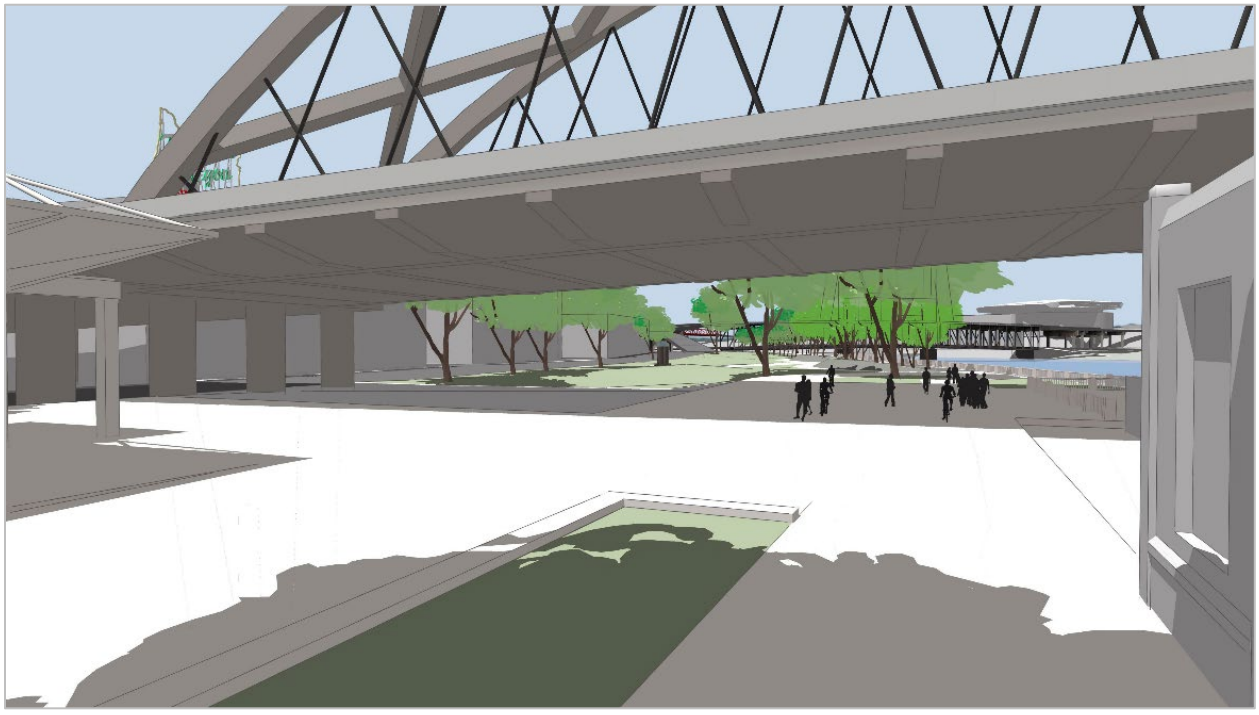


Figure 8. Draft EIS Long-Span Alternative – Cable-Stayed (one set of columns)

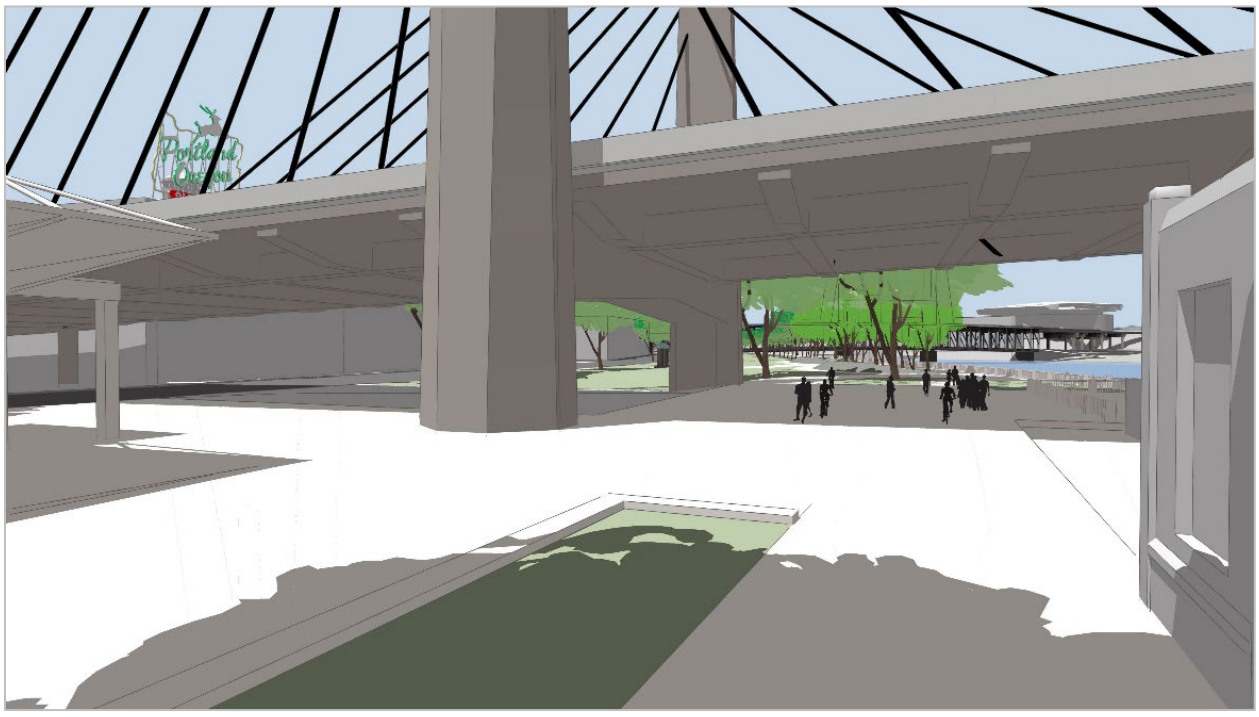


Figure 9. Refined Long-Span Alternative – Girder (two sets of columns)

7.2.2 Bicycle Lanes and Sidewalks

The Refined Long-span Alternative allocates 14 to 17 feet of space for sidewalks and bicycle lanes in each direction compared to the Draft EIS Long-span Alternative which includes 20-foot-wide bicycle and pedestrian facilities. However, the Refined Long-span Alternative would still result in a net increase in the width of sidewalks and on-street bicycle lanes over existing/No-Build conditions. The cross section for the Refined Long-span Alternative also includes a permanent physical buffer between the moving vehicle traffic and bicycle/pedestrian traffic. Figure 10 through Figure 12 below compare the existing bridge cross section with the Draft EIS Long-span and Refined Long-span Alternatives.

The Refined Long-span Alternative's wider pedestrian and bicycle lanes would reduce the potential risk for pedestrian and bicycle interactions compared to existing/No-Build conditions, although to a slightly lesser degree than the Draft EIS Long-span Alternative. The Refined Long-span Alternative provides more space than the No-Build Alternative but narrows the amount of space available by 9 feet from the Draft EIS Long-span Alternative. This could affect accessibility and usage for some users, including those who may belong to EJ populations.

The pedestrian and bicycle lanes under the Refined Long-span Alternative would benefit all users, including EJ populations who may depend on walking or bicycling as a primary means of transportation. By expanding the amount of dedicated space for walking and cycling compared to existing/No-Build conditions, the Refined Long-span Alternative would improve safety conditions for EJ populations making cross-river trips by foot or by bicycle.

Figure 10. Bridge Cross Section Over River – Existing

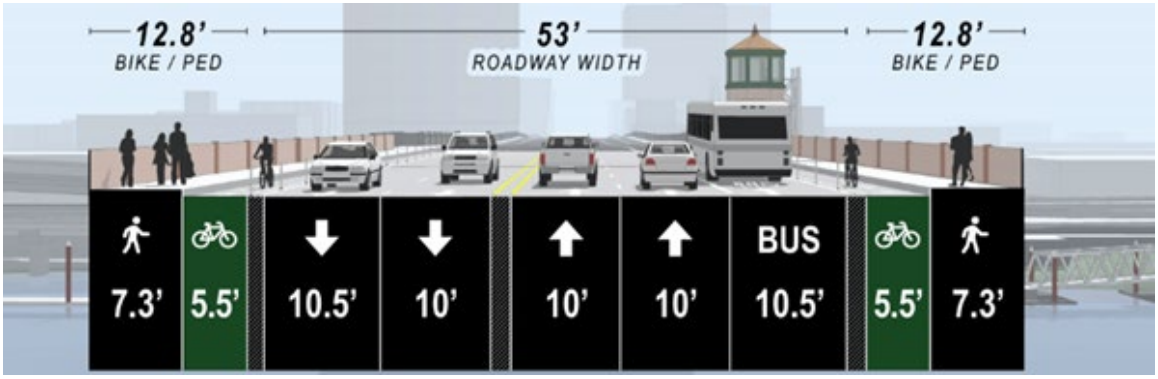


Figure 11. Bridge Cross Section Over River – Draft EIS Long-Span Alternative

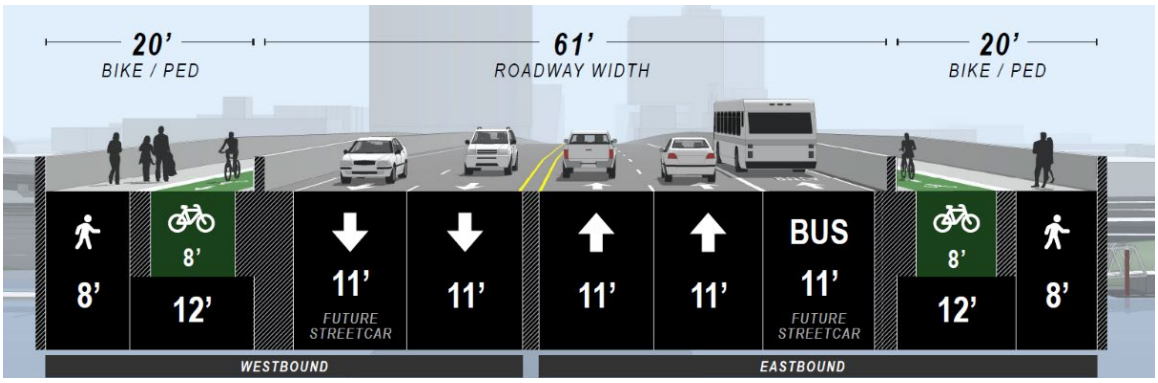
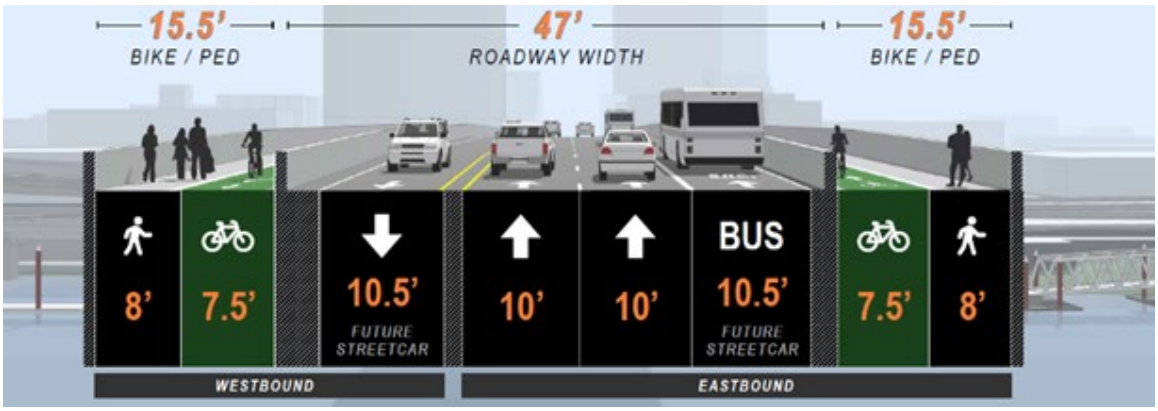


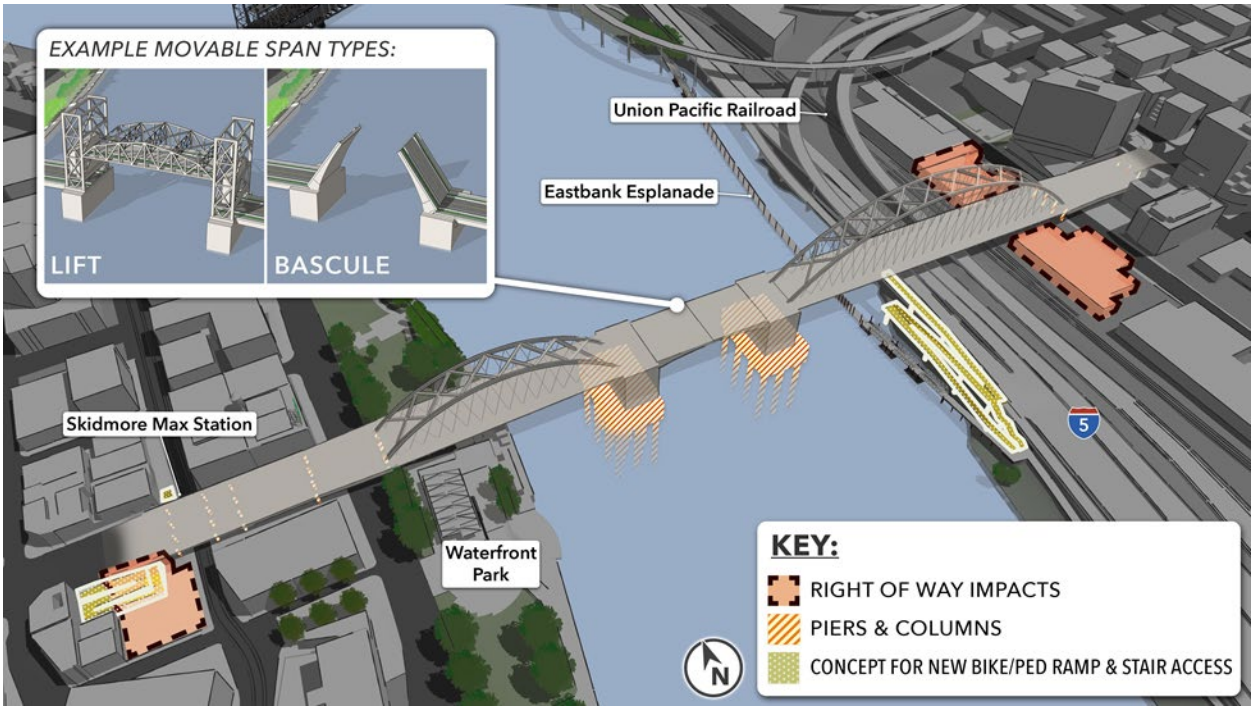
Figure 12. Bridge Cross Section Over River – Refined Long-Span Alternative



7.2.3 ADA/Bicycle/Pedestrian Access

The Refined Long-span Alternative includes options that would provide improved ADA, bicycle, and pedestrian access between the bridge and the Skidmore Fountain MAX station, as well as between the bridge and the Vera Katz Eastbank Esplanade. The Draft EIS Long-span Alternative also considers options for improving ADA access between these facilities using a combination of ramps, stairs, and elevators. Figure 13 below displays a conceptual rendering of the ADA ramp and stair access options evaluated for the Draft EIS Long-span Alternative. Under the Draft EIS Long-span Alternative, options evaluated for the east access to the bridge included stairs with switchback-style ramps as well as elevators with stairs connecting the Eastbank Esplanade to the bridge deck. The west approach options consisted of stairs and shorter length ramps providing direct access between SW 1st Street/Skidmore Fountain MAX Station to the bridge.

Figure 13. Draft EIS Long-Span Alternative – ADA Access – Ramp/Stair Access



The following sections describe options studied to upgrade existing access to the Skidmore Fountain MAX Station and Vera Katz Eastbank Esplanade under the Refined Long-span Alternative.

Access to SW 1st Ave/Skidmore MAX Station

The Refined Long-span Alternative evaluates providing direct ADA, bicycle, and pedestrian access from the bridge to and from SW 1st Avenue in both travel directions using a combination of stairs and an elevator. These enhancements would improve accessibility and connections between an existing TriMet bus stop on the bridge and TriMet's Skidmore Fountain MAX station under the bridge. It would also have a much smaller footprint in the historic district compared to the ramp options that were evaluated

in the Draft EIS. In addition, the Project would repair the sidewalk routes between the end of the bridge and SW 1st Avenue. Figure 14 and Figure 15 below display existing pedestrian access between the bridge and SW 1st Avenue, which consists of zig-zag-style staircases. These stairs are currently inaccessible to people who rely on mobility devices such as wheelchairs and rollers. The existing stairs are also inaccessible to bicyclists unless they are able to carry their bicycles up and down the stairs.

The Refined Long-span Alternative includes an option for an ADA-accessible elevator adjacent to the staircase at the southwest and northwest accesses, which would provide an accessible and convenient connection between the bridge and SW 1st Street for all users, including EJ populations. Figure 16 and Figure 17 below display the stairs and elevator at the west end of the bridge for the Refined Long-span Alternative.

These accessibility improvements would also enhance connections to the Skidmore Fountain MAX station. Improved access to the MAX station would benefit EJ populations who are also transit riders, and especially those that depend on transit as a primary mode of transportation. Access to the Skidmore Fountain MAX station would also improve access to the citywide MAX network for all riders, including EJ populations. It is important to note that the existing bus stop on the bridge is likely to be relocated a block west (off the bridge), and TriMet is currently studying a proposal to close the Skidmore Fountain MAX station; if either or both of these occur, it would greatly diminish the benefit of providing elevators at this location.

Figure 14. Existing Pedestrian Access – Southwest

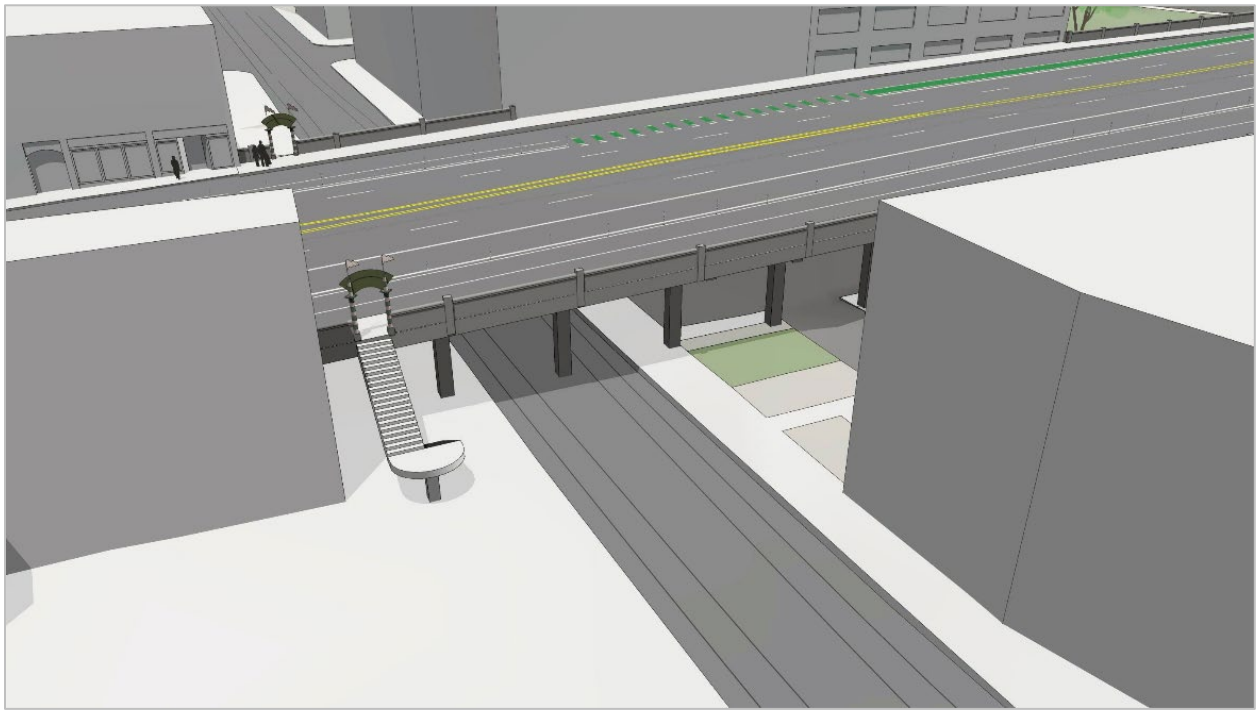


Figure 15. Existing Pedestrian Access – Northwest

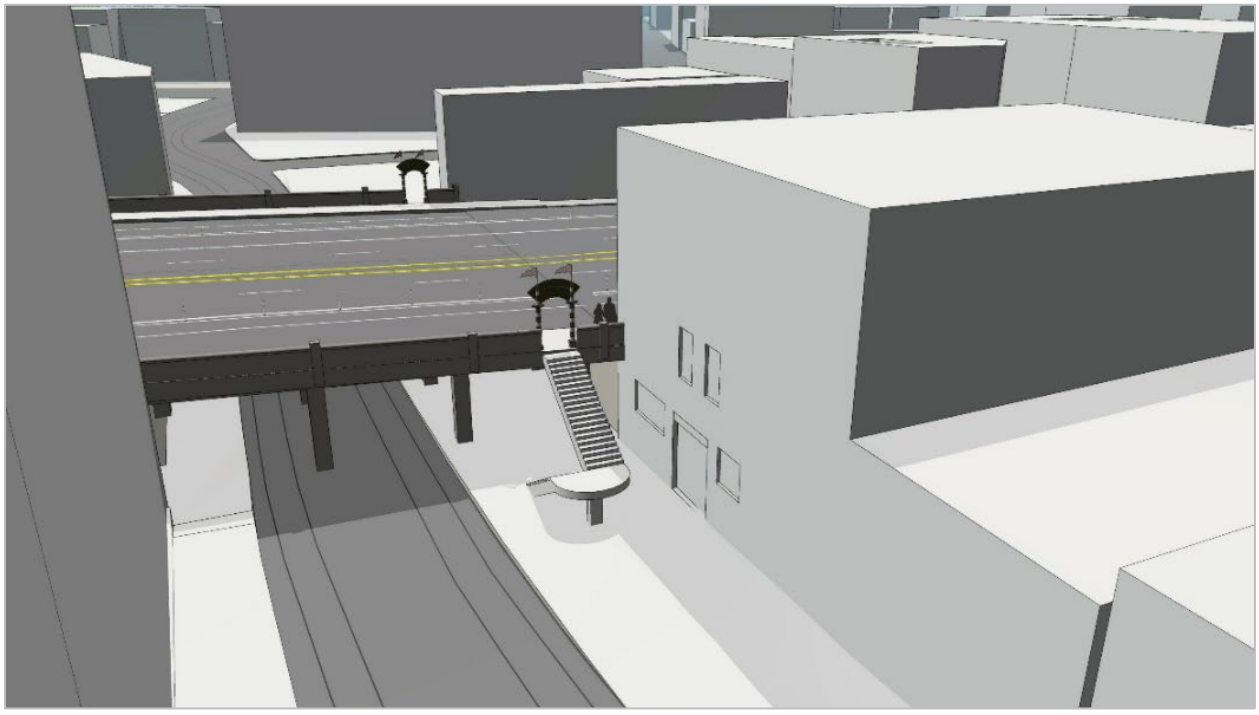
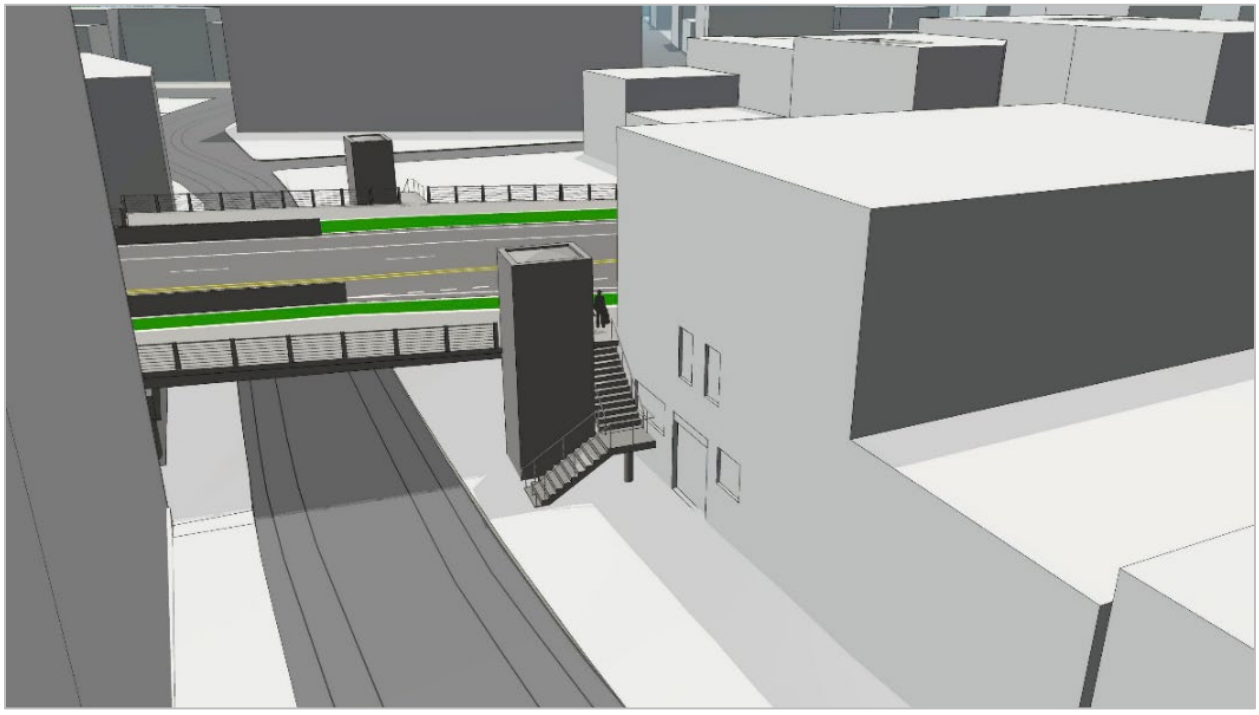


Figure 16. Refined Long-Span Alternative – ADA/Pedestrian/Bicycle Access – Southwest

Figure 17. Refined Long-Span Alternative – ADA/Pedestrian/Bicycle Access – Northwest



Access to the Vera Katz Eastbank Esplanade

The Refined Long-span Alternative is evaluated with both northbound- and southbound-accessible stairs and elevators for ADA access to the Vera Katz Eastbank Esplanade. Stairs and elevators under the Refined Long-span Alternative would improve access for all users, including EJ populations, compared to existing/No-Build conditions. Figure 18 below displays existing pedestrian access between the bridge and Eastbank Esplanade, which consists of City-owned stairs connecting only to the south side of the bridge. Figure 19 displays the elevator and stair option evaluated for the Refined Long-span Alternative.

The use of elevators and stairs would provide a direct and convenient connection between the bridge and Eastbank Esplanade that would accommodate all pedestrians, ADA users, and bicyclists, including those who also belong to EJ populations. It would avoid the access limitations of the ramp options. At the same time, elevators have security concerns because they are enclosed, and they have reliability concerns because they require regular maintenance and repair. The potential for temporary elevator closures is not anticipated to disproportionately impact EJ populations.

The ramps evaluated in the Draft EIS, which entail climbing or descending 1,000-foot-long ramps at 5 percent grade (see Figure 13 above) have safety and access concerns for some users. Ramps provide the advantage of being higher capacity and less vulnerable to maintenance closures. It is important to note that the existing City-owned stairway between the Eastbank Esplanade and the bridge could be left in place during bridge demolition and then reconnected to the new bridge after construction. This would allow the City to pursue potential upgrades to its Eastbank Esplanade connection as a separate, future project.

Figure 18. Vera Katz Eastbank Esplanade ADA/Pedestrian Access – Existing

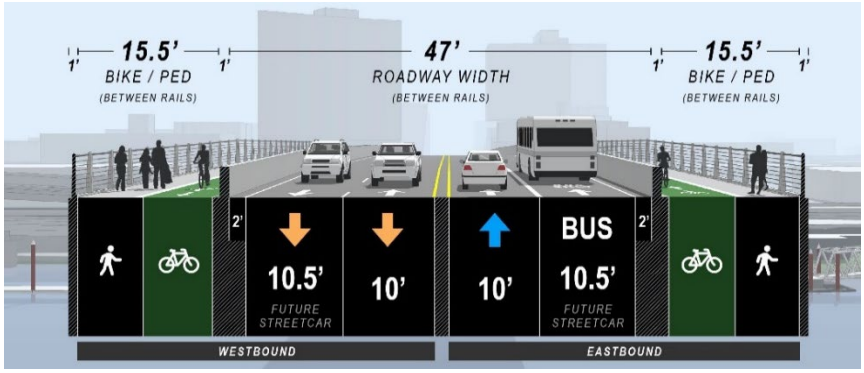
Figure 19. Vera Katz Eastbank Esplanade ADA/Pedestrian Access – Refined Long-Span Alternative

7.2.4 Transit Users

The Refined Long-span Alternative would remove one vehicle lane, accommodating four lanes rather than five as evaluated in the Draft EIS. Four different lane configuration options (see Section 2) are being considered, summarized in Figure 20 through Figure 23 below. Lane configuration Options 1, 2, and 3 would include an eastbound

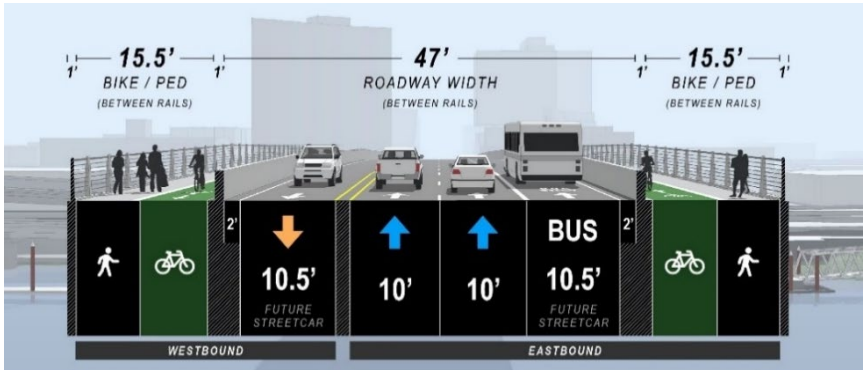
bus-only lane to enhance eastbound transit travel speed and reliability. Lane Option 4 is the only option that would not include an eastbound bus-only lane, although this option would include queue bypassing at both the west and eastbound approaches to the bridge that would provide intermittent bus priority at intersections. The lack of a dedicated eastbound bus-only lane under Option 4 could reduce reliability for eastbound bus riders needing to make connections or access services on either side of the bridge compared to the Draft EIS or No-Build lane configurations.

Figure 20. Refined Long-Span Lane Configurations – Option 1



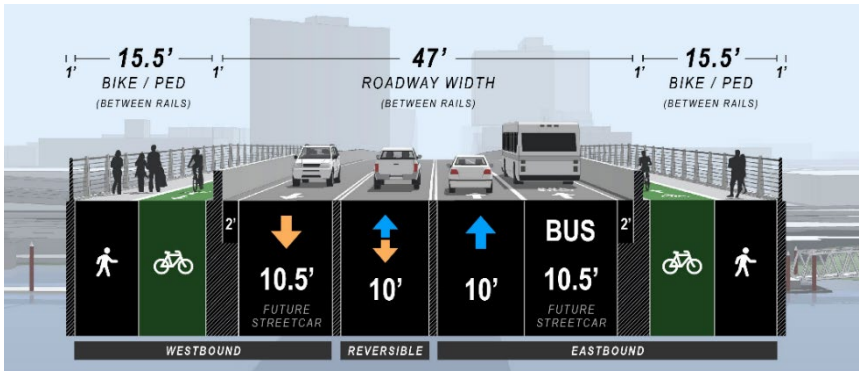
Two Westbound Lanes | One Eastbound + One Bus Lane

Figure 21. Refined Long-Span Lane Configurations – Option 2



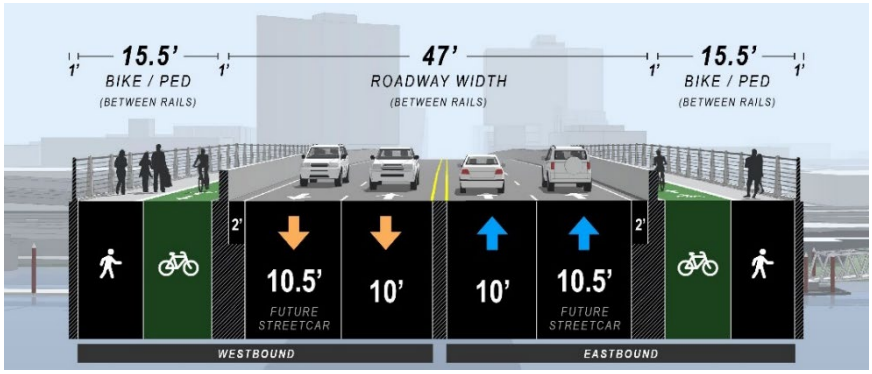
One Westbound Lane | Two Eastbound + One Bus Lane

Figure 22. Refined Long-Span Lane Configurations – Option 3



Reversible Lane

Figure 23. Refined Long-Span Lane Configurations – Option 4



Two Westbound Lanes | Two Eastbound Lanes (Bus Queue Jump)

Although there are trade-offs associated with each of these four lane configurations, the overall impact of any of these configurations would generally benefit EJ populations who use transit, especially those who depend on transit as a primary mode of transportation.

7.2.5 Social Service Providers

The Refined Long-span Alternative would require permanent easements on properties currently used by the Portland Rescue Mission and Mercy Corps. However, like the Draft EIS Long-span Alternative, the Refined Long-span Alternative would not displace these or any other social service agencies, thereby avoiding disproportionate and adverse impacts to EJ populations.

7.2.6 Temporary Access Closures

Most of the temporary construction impacts to EJ populations would be the same for the Refined Long-span as described for the Draft EIS Long-span Alternative, with two exceptions:

- Access to the Portland Rescue Mission would not be temporarily rerouted during construction. This is considered a benefit to EJ populations.
- The construction area south of the bridge within Gov. Tom McCall Waterfront Park would have a smaller footprint for the Refined Long-span than is described for the Draft EIS Long-span Alternative. The smaller construction area would make more space available to users during construction which is considered a benefit to EJ populations who may use the park or access the park for social services.

Compared to the two full acquisitions required by the Draft EIS Long-span Alternative, the Refined Long-span Alternative would not require any full acquisitions but would acquire properties as permanent easements. As shown in Table 4 and Table 5 below, five properties would require easements under the Refined Long-span Alternative including the Portland Rescue Mission and Mercy Corps. Similar to the Draft EIS Long-span Alternative, the Saturday Market Administration and storage locations, as well as the University of Oregon retail space, would still be permanently displaced by the Refined Long-span Alternative's easements. It is not anticipated that displacement of the Saturday Market Administration and storage locations or the University of Oregon retail space would result in a disproportionately high and adverse impact on EJ populations.

With all the build alternatives, the area under the bridge would be temporarily closed during construction to protect public safety; this would also mean that houseless people would not be able to sleep there. The organizations that provide social services to houseless as well as other populations near the west end of the bridge have reported that the number of people typically sleeping under the bridge is small (in the single digits) and that the individuals vary. The social service agencies also suggested that other nearby bridges (such as the Morrison Bridge) have more available space and could be a likely area to accommodate those displaced.

Importantly, the Portland Rescue Mission and Mercy Corps operations, which directly serve EJ populations in the area, would not be displaced. Under the Refined Long-span Alternative, temporary construction easement access would also not be required at the Salvation Army or Central City Concern Shoreline Building as would be required under the Draft EIS Long-span Alternative. Therefore, the temporary access closures described herein are not anticipated to result in a disproportionately high and adverse impact to EJ populations and are anticipated to have a lesser impact on EJ populations than the Draft EIS Long-span Alternative.

Table 4. Impacted Community Facility or Social Service Provider Properties – Long Term

ID	Tax Lot ID	Property Name	Draft EIS Long-Span Alternative	Refined Long-Span Alternative
2	1N1E34DB-00900	Portland Rescue Mission	-	Easement
3	1N1E34DB-01500	Portland Saturday Market Storage (City of Portland)	Easement**(1)	Easement**(1)
4	1N1E34DB-01400	University of Oregon Retail Space (City of Portland)	Full*(1)	Easement*(1)
5	1N1E34DC-00800	Saturday Market Administration Offices (Skidmore Fountain Plaza, LLC)	Full**(1)	Easement**(1)
11	1N1E34DC-90000	Mercy Corps	-	Easement

See notes for Table 5.

Table 5. Impacted Community Facility or Social Service Provider Properties – Temporary

ID	Tax Lot ID	Property Name	Draft EIS Long-Span Alternative	Refined Long-Span Alternative
1	1N1E34CA-09200	Central City Concern (Shoreline Building)	TCE Access	-
2	1N1E34DB-0900	Portland Rescue Mission	TCE Access	TCE
5	1N1E34DC-00800	Saturday Market Administration Offices (Skidmore Fountain Plaza, LLC)	-	TCE**
6	1N1E34CD-00300	Salvation Army	TCE Access	-

ID	Tax Lot ID	Property Name	Draft EIS Long-Span Alternative	Refined Long-Span Alternative
10	1N1E34DB-00600	University of Oregon (White Stag Building)	TCE Access	TCE Access
11	1N1E34DC-90000	Mercy Corps	TCE	TCE
12	1N1E34DB-01300	Japanese American Historical Plaza (City of Portland)	TCE	TCE
13	1N1E34DC-03600	Ankeny Plaza Structure (City of Portland)	TCE**	TCE**
B	N/A	Vera Katz Eastbank Esplanade (City of Portland)	TCE	-

TCE = Temporary Construction Easement | TCE Access = Temporary Construction Easement for access closures only

*The University of Oregon uses this space and this is identified as a displacement of personal property.

**Portland Saturday Market would be permanently displaced from their administration offices and temporarily displaced from the storage and market space under the bridge.

8 Mitigation

Potential EJ-related mitigation measures would be the same for the Refined Long-span Alternative as described for the Draft EIS Long-span Alternative in the Draft EIS, with one addition. To address potential long-term impacts to businesses and communities during construction, there would be a construction web page for people and businesses to access with questions and concerns regarding any temporary access impacts to businesses and measures to maintain access. This is a new mitigation measure since the Draft EIS was published, but it would apply to any of the Build Alternatives. Construction updates and use of the web page would be promoted through relevant organizations that directly serve EJ populations such as Portland Rescue Mission and the Salvation Army.

9 Agency Coordination

Impacts to EJ populations resulting from the Refined Long-span Alternative were informed by ongoing agency coordination with project partners. As described in Section 5.1, Public and Stakeholder Outreach, meetings and coordination actions took place between Multnomah County, the EQRB Project team, and agency partners between May and September 2021. Internal and external coordination included:

- Multnomah County Office of Equity and Diversity
- City of Portland, Portland Bureau of Transportation
- TriMet

While agency coordination during this period did not focus specifically on EJ issues, these discussions directly informed the development of the Refined Long-span Alternative and design modifications to the Draft EIS Long-span Alternative that could result in impacts to EJ populations. Specifically, agency partners engaged in much deliberation around potential improvements to ADA access between the bridge and the Vera Katz Eastbank Esplanade and the Skidmore Fountain MAX station, the allocation of bridge space for bicycle and pedestrian traffic, impacts to social service providers, and impacts to future transit service. Impacts regarding these key topics have the potential to impact EJ populations differently than the general population, as discussed in this supplemental memo, especially concerning EJ populations who depend on direct assistance from social service organizations; those who depend on walking, bicycling, or public transit as their primary mode of transportation; and those who frequently access the Project Area. Future outreach and agency coordination around these issues is planned as the Project moves into the Final Environmental Impact Statement phase in 2022.

10 Preparers

Name	Professional Affiliation	Education	Years of Experience
Eduardo Montejo	Parametrix	Master of Urban and Regional Planning	8

11 References

Multnomah County.

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2019b. EQRB Public Involvement Plan.

2019c. EQRB Public Involvement Summary Report, Round 1

2020. EQRB Public Involvement Summary Reports, Round 2

2021a. EQRB Description of Alternatives Report. https://www.multco.us/earthquake-ready-burnside-bridge/project-library

2021b. EQRB Draft Environmental Impact Statement. https://www.multco.us/earthquake-ready-burnside-bridge/project-library.

2021c. EQRB Environmental Justice Technical Report. https://www.multco.us/earthquake-ready-burnside-bridge/project-library.

2021d. EQRB Public Involvement Summary Reports, Round 3

2022a. EQRB Public Involvement Summary Reports, Round 4

2022b. EQRB Supplemental Draft Environmental Impact Statement. https://www.multco.us/earthquake-ready-burnside-bridge/project-library.