Parks and Recreation Supplemental Memorandum

Multnomah County | Earthquake Ready Burnside Bridge Project

Portland, OR

April 22, 2022

Earthquake Ready Burnside Bridge Parks and Recreation Supplemental Memorandum

Prepared for

Multnomah County
Transportation Division – Bridges
1403 SE Water Ave
Portland, OR 97214

Prepared by

HDR
1050 SW 6th Ave, Suite 1800
Portland, OR 97204
T (503) 423-3700

Parametrix
700 NE Multnomah St, Suite 1000
Portland, OR 97232
T (503) 233-2400

Contract# DCS-SVCSGEN-857-2019-conv
HDR Project #10144814

Contents

Tables

Figures

Acronyms, Initialisms, and Abbreviations

ADA	Americans with Disabilities Act
API	Area of Potential Impact
DEIS	Draft Environmental Impact Statement
EIS	environmental impact statement
EQRB	Earthquake Ready Burnside Bridge
I-5	Interstate 5
NEPA	National Environmental Policy Act of 1969
SDEIS	Supplemental Draft Environmental Impact Statement

This page intentionally left blank.

Executive Summary

The majority of park and recreation resources considered in this memorandum, including Governor Tom McCall Waterfront Park (Waterfront Park), Ankeny Plaza, the Willamette River Greenway Trail, and the Vera Katz Eastbank Esplanade (Esplanade), would have no adverse direct long-term impacts under either the Draft EIS Long-span Alternative or the Refined Long-span Alternative. Waterfront Park and the Esplanade would benefit from the long-term effects of the Refined Replacement Alternative with Long-span Approach having fewer bridge supports in or near these resources.

Temporary construction-phase impacts would affect Waterfront Park, the Willamette Greenway Trail, the Esplanade, and Willamette River recreation activities. These temporary impacts would include access restrictions, detours, special event disruptions and cancellations, temporary demolition, tree removal, and noise and air quality disruptions.

1 Introduction

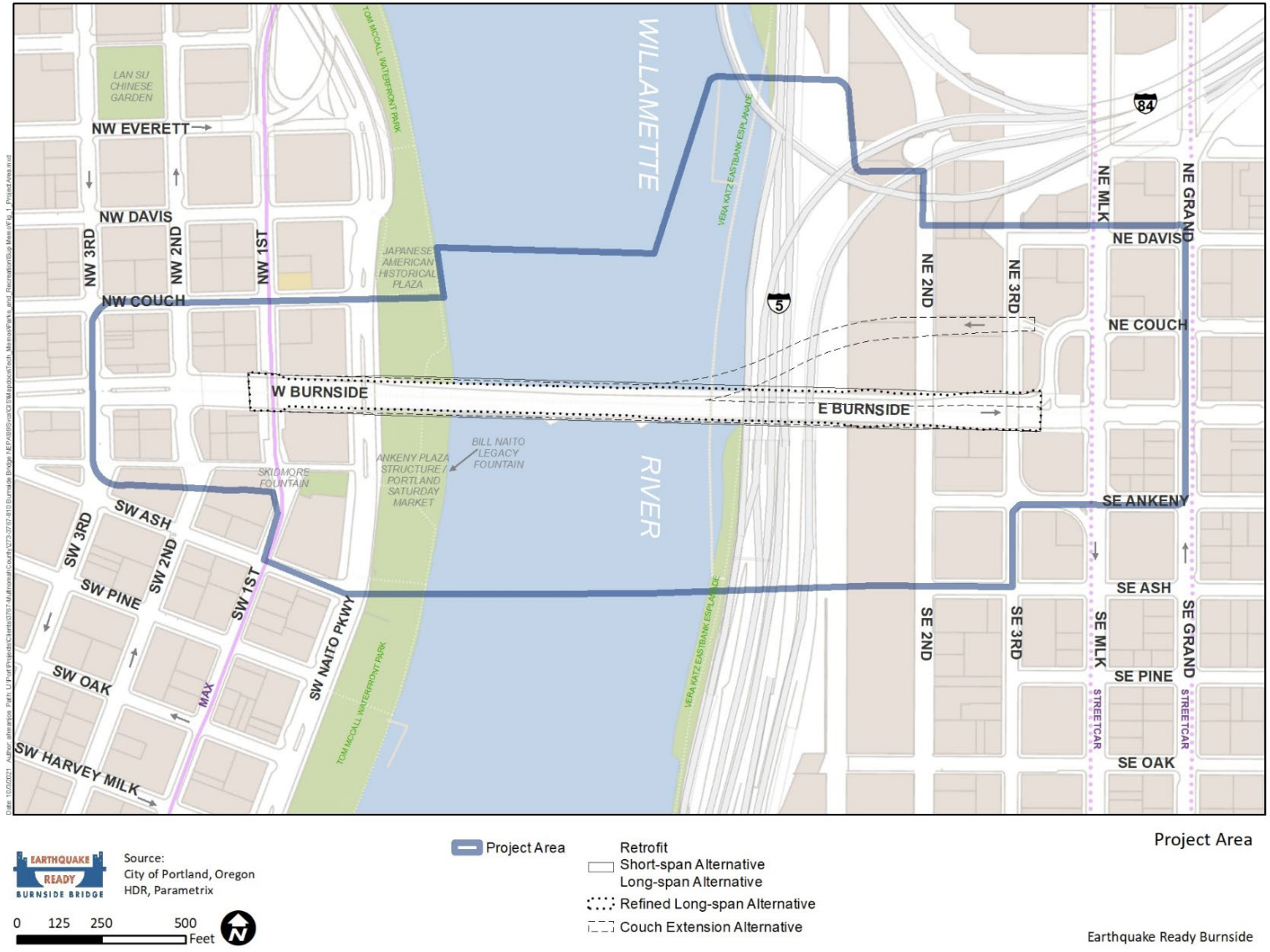
In support of the Supplemental Draft Environmental Impact Statement (SDEIS) for the Earthquake Ready Burnside Bridge (EQRB) Project, this supplemental technical memorandum has been prepared to evaluate the impacts of potential refinements to the Preferred Alternative on parks and recreation within the 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 technical 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 multi-modal, long-term safe crossing with low maintenance needs. The full project purpose and need can be found in the EQRB Draft EIS, Chapter 1.

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 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.

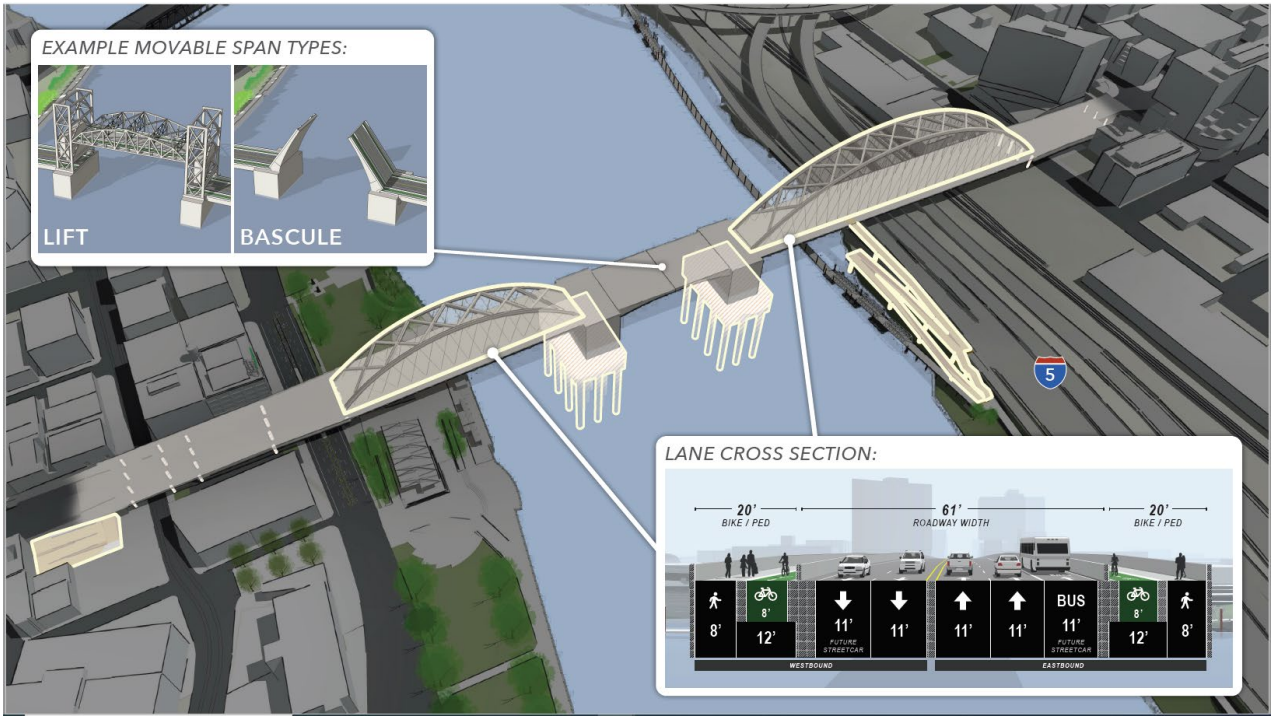
- Bridge width – The total width of the bridge over the river would be approximately 82 to 93 feet (the range varies depending on the bridge type and segment). For comparison, the Draft EIS Replacement Alternatives were approximately 110 to 120 feet wide over the river. The refined bridge width would 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 memo evaluates a refined 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 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 memo 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 memo evaluates a refined approach for providing direct ADA access between the bridge and the 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 supplemental 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

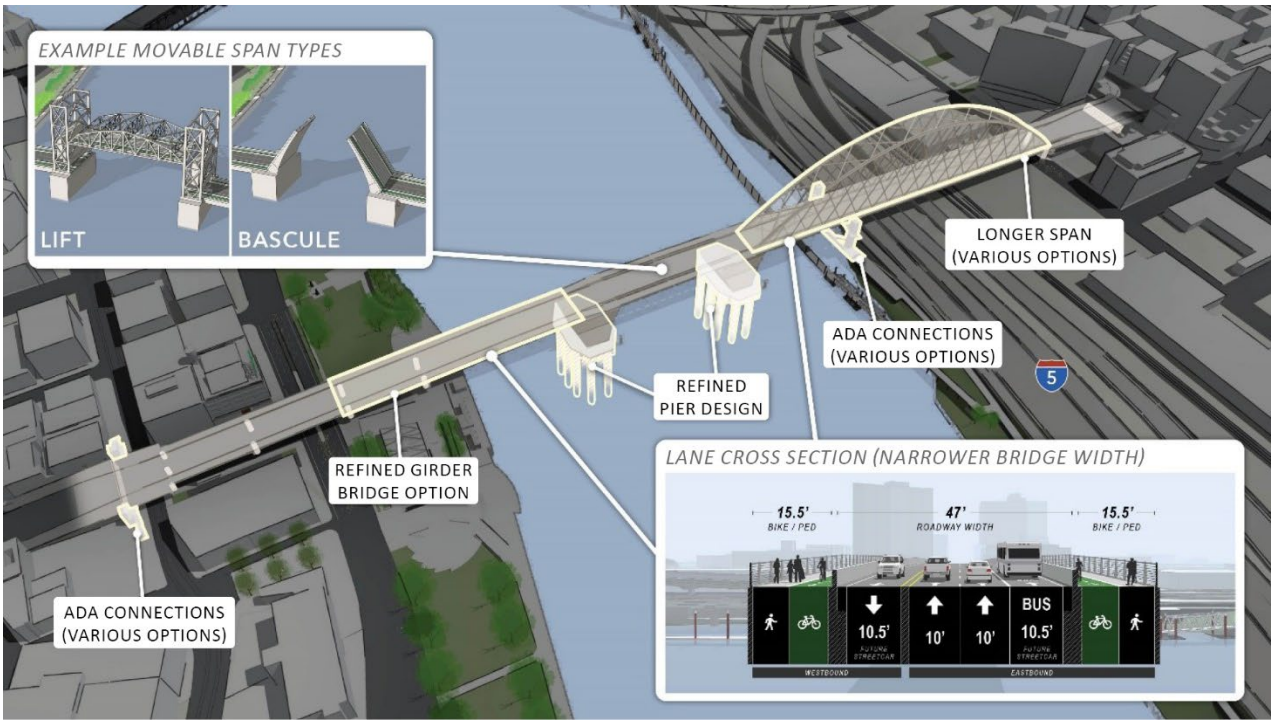
shows the Draft EIS Long-span Alternative and Figure 3 shows the Refined Long-span Alternative. Both figures include the tied-arch option for the east approach and the bascule option for the center movable span, but the east span could also be a cable-stayed bridge, and the movable span could be a vertical lift bridge. For the west approach, the Draft EIS Long-span Alternative shows the tied-arch option while the Refined Long-span 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 many 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 2022). 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 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 would remove slightly fewer trees and vegetation impacts than the Draft EIS Long-span, primarily within 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 be 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 compares major bridge elements of the Draft EIS Long-span Alternative to those of the Refined version, and Table 2 compares construction impacts for the Draft EIS Long-span and the Refined Long-span Alternatives.

Table 1. Major Bridge Elements by Alternative

Element	Draft EIS Long-Span Alternative	Refined Long-Span Alternative
Piers and bents	Replace all piers on deep foundations; Bent on both approaches supported by columns on drilled shafts. Stabilize soils surrounding one bent located in GHZ in east approach.	Replace all piers on deep foundations; Bent on both approaches supported by columns on drilled shafts. Cable-stayed and short tied-arch options: Stabilize soils surrounding one bent located in GHZ in east approach. Long tied-arch option: May not require geotechnical stabilization
West approach	Four bents west of Naito Pkwy and one in Waterfront Park. Bridge type over Waterfront Park and Naito Parkway: cable-stayed, tied-arch, through-truss, or girder.	Three bents west of Naito Parkway and two bents, each with two columns, in Waterfront Park Bridge type over Waterfront Park and Naito Parkway: Refined girder
East approach	Three bents on land and none in the river.	Same
Movable bridge span	Bridge type: bascule span or vertical lift bridge	Same

GHZ = geologic hazard zone

Table 2. Construction Impacts, Closure Extents, and Timeframes by Build Alternative

Facility Impacted	Draft EIS Long-Span Alternative with No Temp. Bridge	Refined Long-Span Alternative with No Temp. Bridge
Gov. Tom McCall Waterfront Park	4.5-year closure within boundary of potential construction impacts	Same; Smaller closure area south of the bridge; Smaller closure area north of the bridge (this revision applies to all alternatives)
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 the Project builds ramps rather than elevators and stairs for the ADA/bicycle/pedestrian connection); detours in place for construction duration	Same
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

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 API for Parks and Recreation is the same as the Project Area.
- **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.

4 Relevant Regulations

There are no changes in relevant regulations from the *EQRB Parks and Recreation Technical Report* (Multnomah County 2021c).

5 Analysis Methodology

There are no changes in methodology from the *EQRB Parks and Recreation Technical Report*.

6 Affected Environment

There are no changes in the affected environment compared to what is described in the *EQRB Parks and Recreation Technical Report.*

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

7.1 Pre-Earthquake Impacts

The majority of parks and recreation resources considered in this memorandum, including Governor Tom McCall Waterfront Park (Waterfront Park), Ankeny Plaza, the Willamette Greenway Trail, and the Vera Katz Eastbank Esplanade (Esplanade), would have no adverse direct long-term impacts under either the Draft EIS Long-span Alternative or the Refined Long-span Alternative. Waterfront Park and the Esplanade

would benefit from the long-term effects of the Refined Long-span Alternative having fewer bridge supports in or near these resources.

Temporary construction-phase impacts would affect Waterfront Park, the Willamette Greenway Trail, the Esplanade, and Willamette River recreation activities. These temporary impacts would include access restrictions, detours, special event disruptions and cancellations, temporary demolition, tree removal, and noise and air quality disruptions.

Section 2 describes the refinements being evaluated in the supplemental technical analysis. Table 3 includes only those refinement elements that would have an effect on parks and recreation resources and provides a brief description of the impacts compared to the Draft EIS Long-span Alternative and No-Build Alternative. All other refinement elements described in Section 2 would have no effect on park and recreation resources or would not have a different effect than that described in the Draft EIS.

Table 3. Summary of Effects for Park and Recreation Resources

Refined Long-Span Alternative	How the refinement affects impacts, 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 82–93 feet (range varies with bridge type and segment); by comparison, the Draft EIS Replacement Alternatives were approximately 110–120 feet wide over the river.	Narrower shaded area over Waterfront Park and the Esplanade compared to Draft EIS Long-span; about the same as existing conditions.
West approach – Refined girder bridge type over the west channel of the river and Waterfront Park.	Generally higher vertical clearance over Waterfront Park compared to the Draft EIS Long-span girder option and in some areas higher than the existing bridge. Cable-stayed and tied-arch could provide higher clearance but would have tall structures above the bridge deck. Refined girder has less massing/bulk than Draft EIS Long-span girder and less than existing bridge over about 70% of park (the other 30% would be thicker than the existing bridge deck). Includes two sets of columns within the park, whereas the Draft EIS Long-span has just one; the existing bridge has five sets of columns in the park.
East approach – The refined alternative would place the eastern pier of the tied arch span just to the west of 2nd Ave.	No difference in impacts to the Esplanade. Slightly higher vertical clearance over the skatepark compared to the Draft EIS Long-span.
ADA access to other facilities – The refined approach evaluates direct ADA access between the bridge and the Esplanade using both elevators and stairs. These facilities would also provide pedestrian and bicycle access.	Less impact to Esplanade existing upland structure compared with the Draft EIS Long-span ramp. Removes fewer trees between the Esplanade and I-5, south of the bridge. Shorter duration closure of the Esplanade. Provides access to both travel directions on the bridge to and from the Esplanade, increases ADA and pedestrian accessibility; elevator and stairs not as convenient for bicyclists compared to the Draft EIS ramp option, but better than existing. Also concerns about reliability if not regularly maintained and repaired.

Refined Long-Span Alternative	How the refinement affects impacts, compared to the Draft EIS Long-span and No-Build or Existing
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. Revised construction area north of the west end of the bridge within Waterfront Park does not include cherry trees. This change would apply to all Build Alternatives.	Smaller Boundary of Potential Construction Impacts on south side of bridge means less area is closed during full construction period.

7.1.1 Willamette River Recreation

As with the Draft EIS Long-span Alternative, the Refined Long-span Alternative would have no long-term effects on recreational boating, use of the Willamette River Water Trail, on-water events, or the Duckworth Dock. Short-term impacts restricting recreational river users from passing under the bridge and maintaining mandated safe distances from construction equipment would be the same as those described for the Draft EIS Long-span Alternative because the construction time is the same for both alternatives.

Compared with the No-Build Alternative, there would be no difference in impacts between the Draft EIS Long-span Alternative and the Refined Long-span Alternative.

7.1.2 Governor Tom McCall Waterfront Park and the Willamette River Greenway Trail

The Refined Long-span Alternative deck width would be 27 to 28 feet narrower, the vertical clearance above Waterfront Park would generally be higher, and there would be one additional set of piers within Waterfront Park (see Figure 4 through Figure 10). The added vertical clearance would reduce the shading in the park and over the trail from the bridge and increase the flexibility for use of the park underneath the bridge. The addition of a second set of piers in the park would be an additional impact compared to the Draft EIS Long-span Alternative, but the Refined Long-span would have three fewer sets of piers in the park compared to the No-Build Alternative.

Figure 4. View in Waterfront Park Under Bridge from Japanese American Historical Plaza – Existing

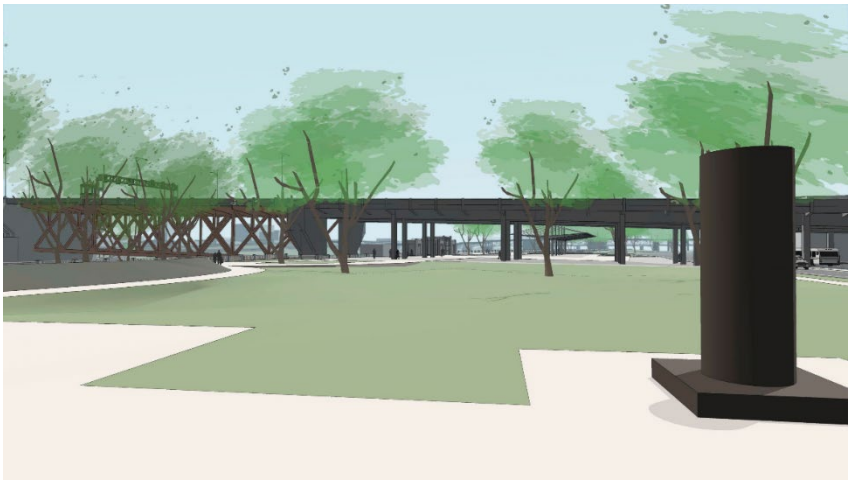


Figure 5. View in Waterfront Park Under Bridge from Japanese American Historical Plaza – Draft EIS Long-Span, Tied-Arch

Figure 6. View in Waterfront Park Under Bridge from Japanese American Historical Plaza – Refined Long-Span, Girder

Figure 7. View in Waterfront Park under Bridge from Ankeny Pump Station – Existing

Figure 8. View in Waterfront Park under Bridge from Ankeny Pump Station – Draft EIS Long-Span, Tied-Arch

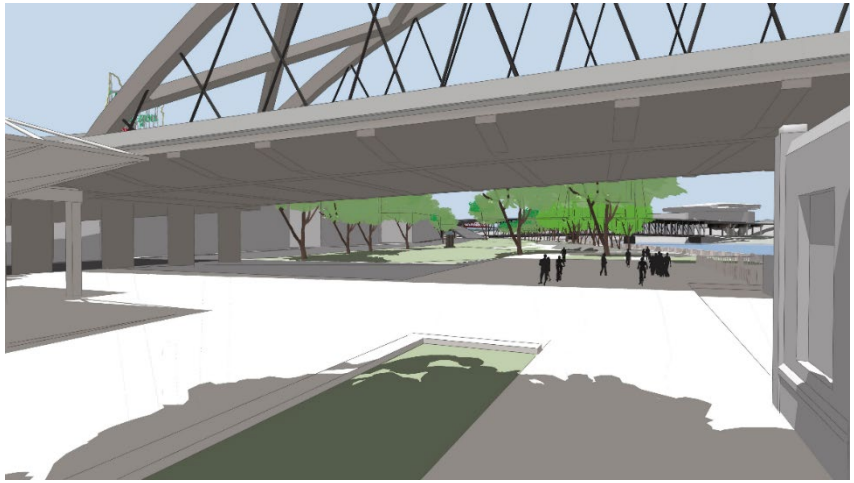


Figure 9. View in Waterfront Park under Bridge from Ankeny Pump Station – Draft EIS Long-Span, Cable-Stayed

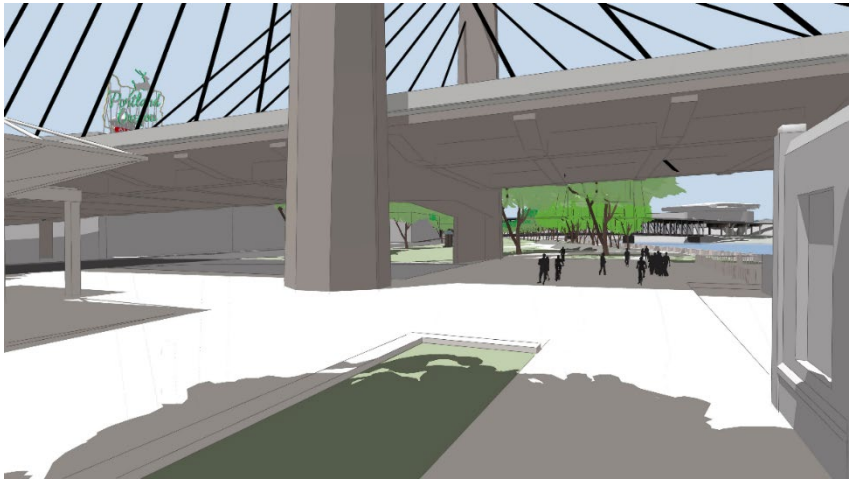


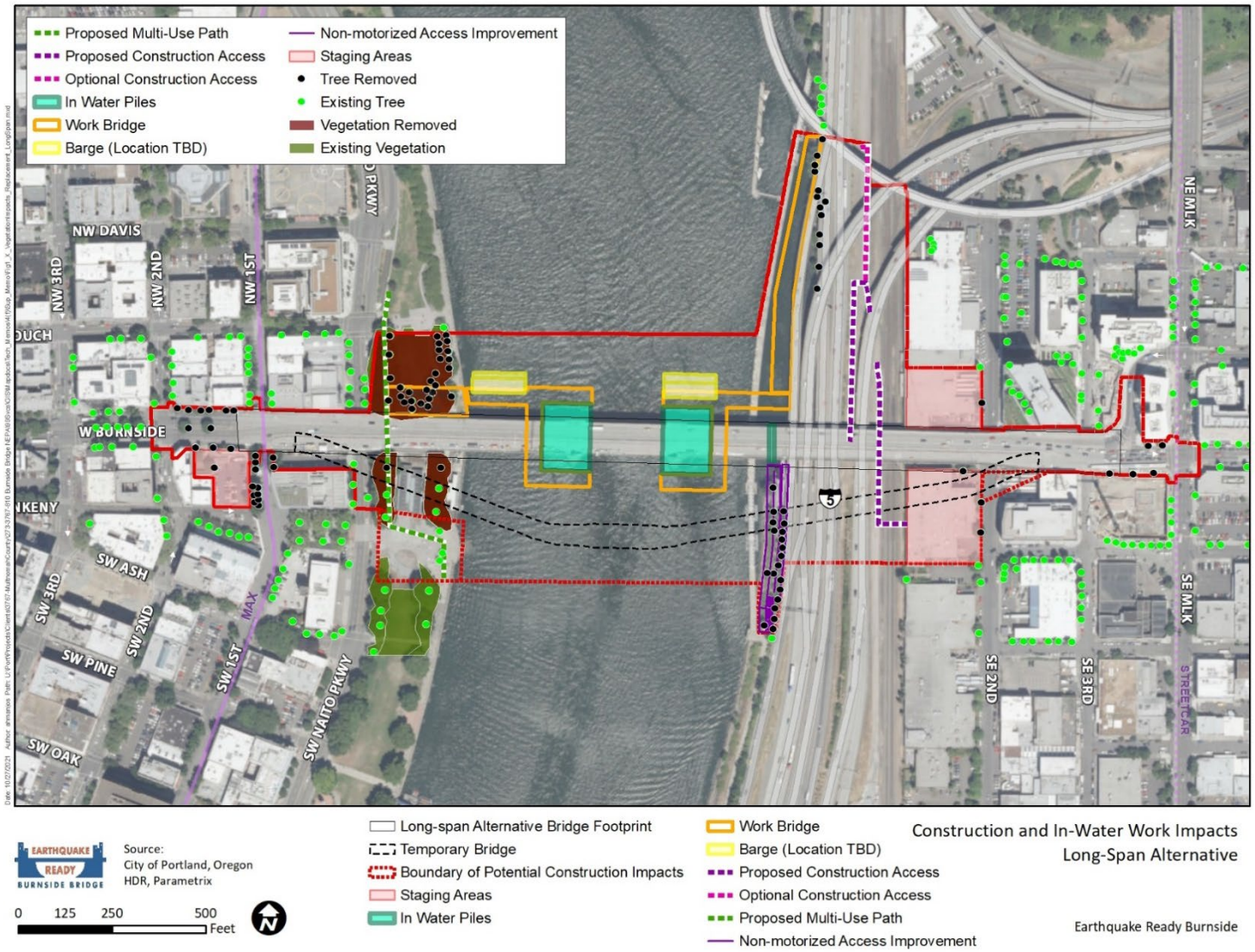
Figure 10. View in Waterfront Park Under Bridge from Ankeny Pump Station – Refined Long-Span, Girder

As discussed in the Draft EIS, the temporary impacts to Waterfront Park would directly affect the southern half of the Japanese American Historical Plaza, the area under the Burnside Bridge, and a portion of the Willamette Greenway Trail with the Draft EIS Long-span Alternative. The construction impacts would disrupt many annual events held in Waterfront Park.

Short-term impacts of the Refined Long-span would have the same duration as those of the Draft EIS Long-span Alternative, but the Refined Long-span would restrict access to a smaller area of Waterfront Park and the trail. The Refined Long-span construction area to the south of the bridge would end north of the Ankeny Plaza structure and would not extend into the Bill Naito Legacy Fountain area or the Meadow area (see Figure 11 and Figure 12). Access to these areas would be open to the public throughout construction.

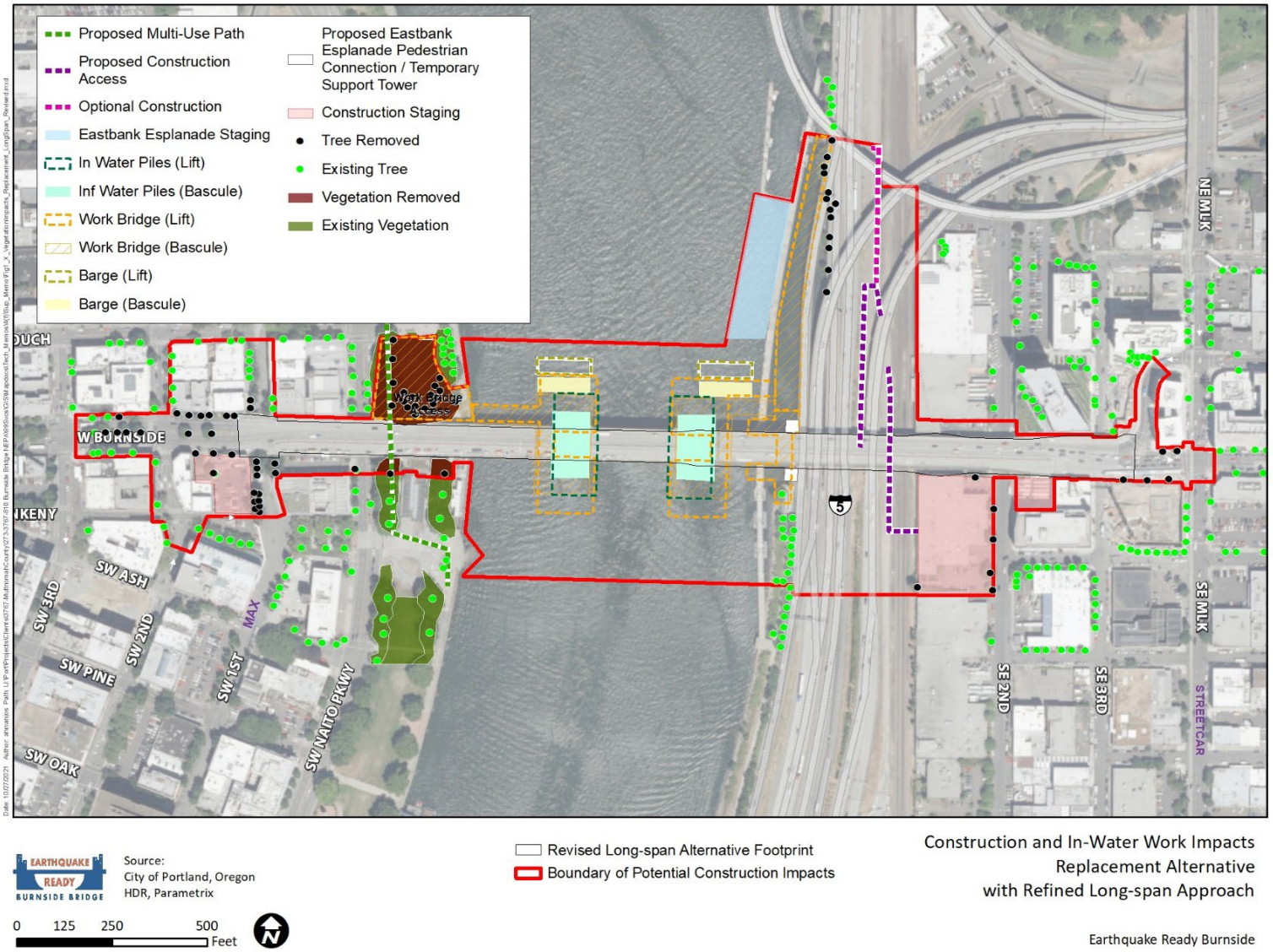
Tree removal north of the bridge during construction would be reduced with the Refined Long-span Alternative and any of the Build Alternatives compared with the Draft EIS analysis. Ten fewer flowering cherry trees associated with the Japanese American Historical Plaza would be removed compared with the Draft EIS Build Alternatives due to a reduced construction area north of the bridge (see Figure 11 and Figure 12). Figure 11 shows tree removal as it is described in the Draft EIS.

Figure 11. Draft EIS Long-Span Temporary Construction and Tree Impacts



Note: This footprint includes bike and ped ramp connections between the bridge and the Eastbank Esplanade and between the bridge and W. First Avenue.

Figure 12. Refined Long-Span (with Vertical Lift) Temporary Construction and Tree Impacts



7.1.3 Vera Katz Eastbank Esplanade

As described in the Draft EIS, the floating section of the Esplanade would be disassembled and stored out of the way during portions of the construction under the Draft EIS Long-span Alternative. Users would be routed to detours, though this would not mitigate for lost recreation use. Many events that use the Esplanade would need to be relocated. The Esplanade restrictions would also impact the Kevin J. Duckworth Memorial Dock, which is attached to the Esplanade.

The Refined Long-span Alternative deck width would be 27 to 28 feet narrower, reducing shading and the feeling of bulk over the Esplanade. The Refined Long-span Alternative would provide very different access to the Burnside Bridge to and from the Esplanade in the form of stairs and elevators, one set each, on the north and south sides of the bridge (see Figure 13 through Figure 15). For bicyclists, the elevator and stairs structure is considered to be less convenient than a ramp. In addition, this refinement would have less disturbance to the upland portion of the Esplanade.

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

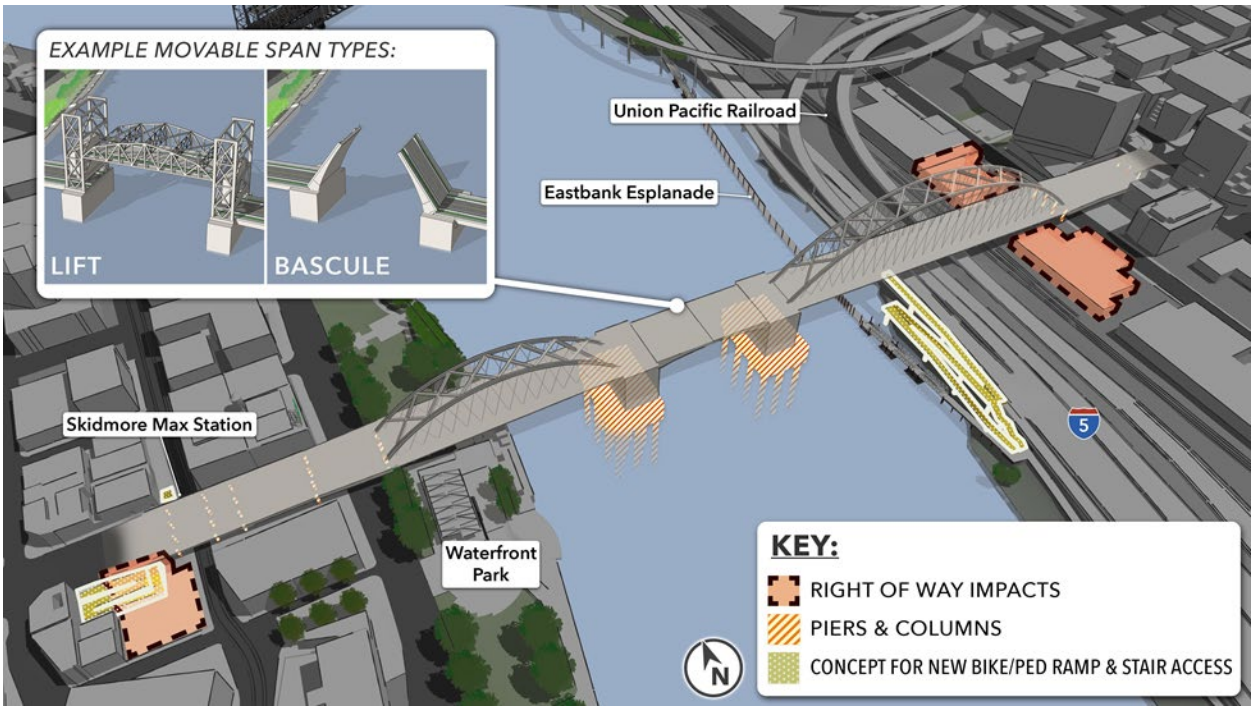


Figure 14. East Side ADA Access – Existing

Figure 15. East Side ADA Access – Refined Long-Span

Short-term impacts would have the same duration as the Draft EIS Long-span Alternative with stairs,[1] so users and events would experience the same duration of relocations and detours. However, the Refined Long-span Alternative would require removal of fewer trees adjacent to the Esplanade. The trees between I-5 and the Esplanade south of the bridge would remain under the Refined Long-span Alternative (see Figure 12).

Compared with the No-Build Alternative, there is an improvement in access to the Esplanade and fewer removed trees under the Refined Long-span Alternative than under the Draft EIS Long-span Alternative.

7.1.4 Ankeny Plaza

As with the Draft EIS Long-span Alternative, the Refined Long-span Alternative would have no long- or short-term effects on Ankeny Plaza.

Compared to the No-Build Alternative, there would be no difference in impacts between the Draft EIS Long-span Alternative and the Refined Long-span Alternative.

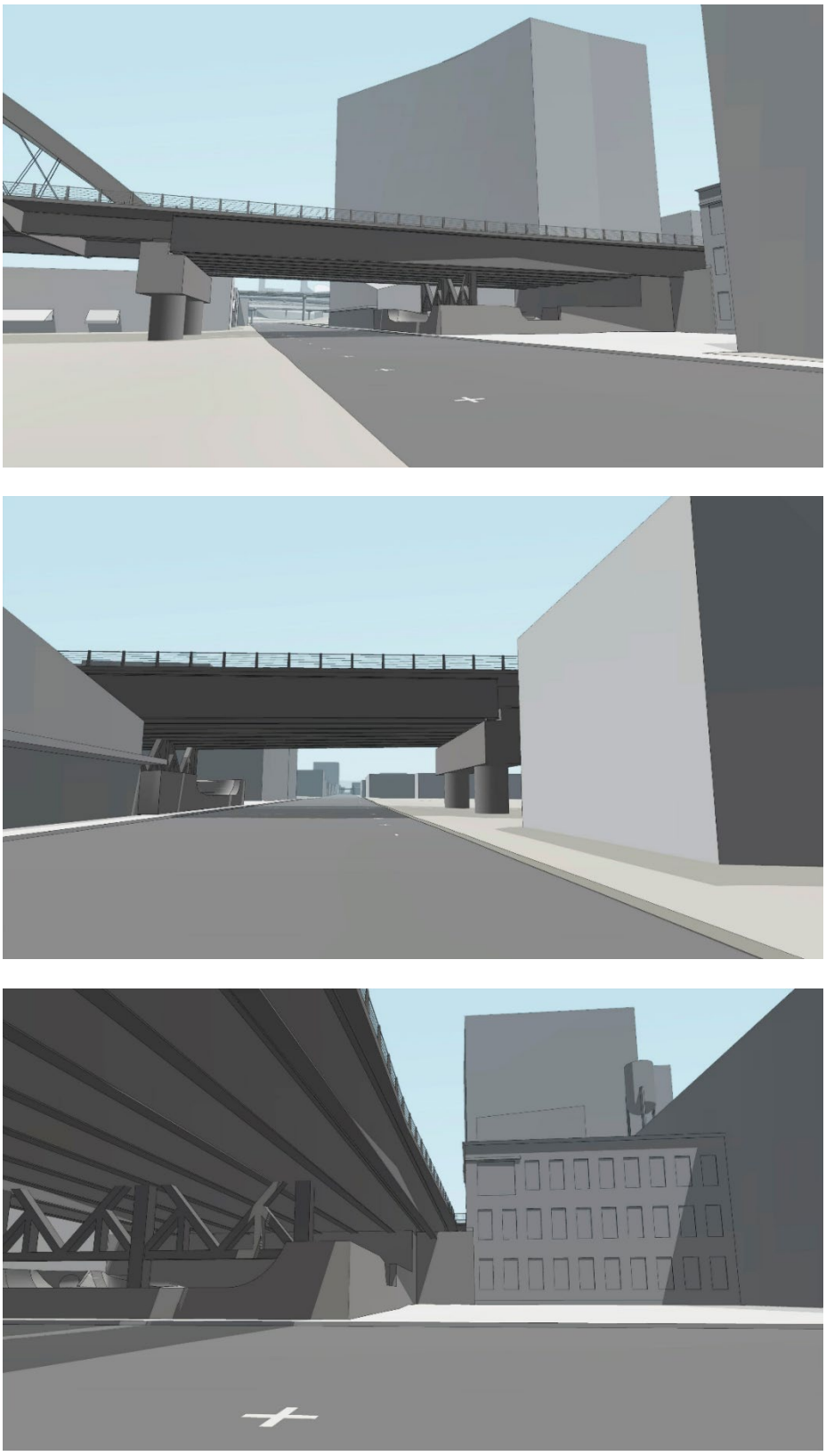
7.1.5 Burnside Skatepark

As with the Draft EIS Long-span Alternative, the Refined Long-span Alternative would not have long-term direct effects on the Burnside Skatepark. No new supports would be installed within the skatepark, and the existing bridge support within the skatepark would remain in place but would be disconnected from the bridge above it.

With the cable-stayed bridge type, no new supports would be added near the skatepark. With the tied-arch bridge type, a new bridge support would be placed on the west side of 2nd Avenue (see Figure 16). The Refined Long-span Alternative would allow slightly more vertical clearance above the skatepark compared to the Draft EIS Long-span Alternative and would generally have the same impacts as the Draft EIS Long-span Alternative compared to the No-Build Alternative.

[1] The Draft EIS also considers the option for ramps to replace the existing stairs. The ramp option would require an additional 2 to 3 years of construction time closure of the Esplanade.

Figure 16. View of East Pier, Refined Long-Span, Tied-Arch, West Side of 2nd Avenue



As described in the Draft EIS, the skatepark would be intermittently unavailable for use during construction. Short-term impacts would have the same impact as the Draft EIS Long-span Alternative because construction timing and duration would be the same.

7.2 Post-Earthquake Impacts

The potential design modifications do not change impacts to parks and recreation resources in a post-earthquake scenario.

8 Potential Mitigation

There are no mitigation changes for parks and recreation resources due to the Refined Long-span Alternative.

9 Agency Coordination

Table 4 shows the coordination regarding parks and recreation that has occurred since the release of the Draft EIS.

Table 4. Coordination Meetings

Stakeholder	Meeting Dates	Topics
Portland Parks and Recreation Portland Bureau of Transportation	September 2, 2020	Parks and recreation mitigation opportunities.
Portland Parks and Recreation Portland Bureau of Transportation	November 25, 2020	Effects of west approach on Waterfront Park and Section 4(f) use.
Portland Parks and Recreation Portland Bureau of Transportation	January 8, 2021	Section 4(f) decision making and Waterfront Park Section 4(f) use.
Portland Parks and Recreation Portland Bureau of Transportation	March 18, 2021	Arborist report, construction access areas, and girder type bridge over Waterfront Park
Portland Parks and Recreation Portland Bureau of Transportation	April 13, 2021	Refined westside support locations and vertical and horizontal clearances.

10 Preparers

Name	Professional Affiliation	Education	Years of Experience
Jennifer Hughes	Parametrix	Master of Urban and Regional Planning	20

11 References

Multnomah County

2021a. EQRB Description of Alternatives. Project Library | Multnomah County (multco.us)

2021b. EQRB Draft Environmental Impact Statement. Project Library | Multnomah County (multco.us).

2021c. EQRB Parks and Recreation Technical Report. Project Library | Multnomah County (multco.us)

2022. EQRB Supplemental Draft Environmental Impact Statement. Project Library | Multnomah County (multco.us)