EARTHQUAKE READY BURNSIDE BRIDGE

Community Task Force Meeting #24

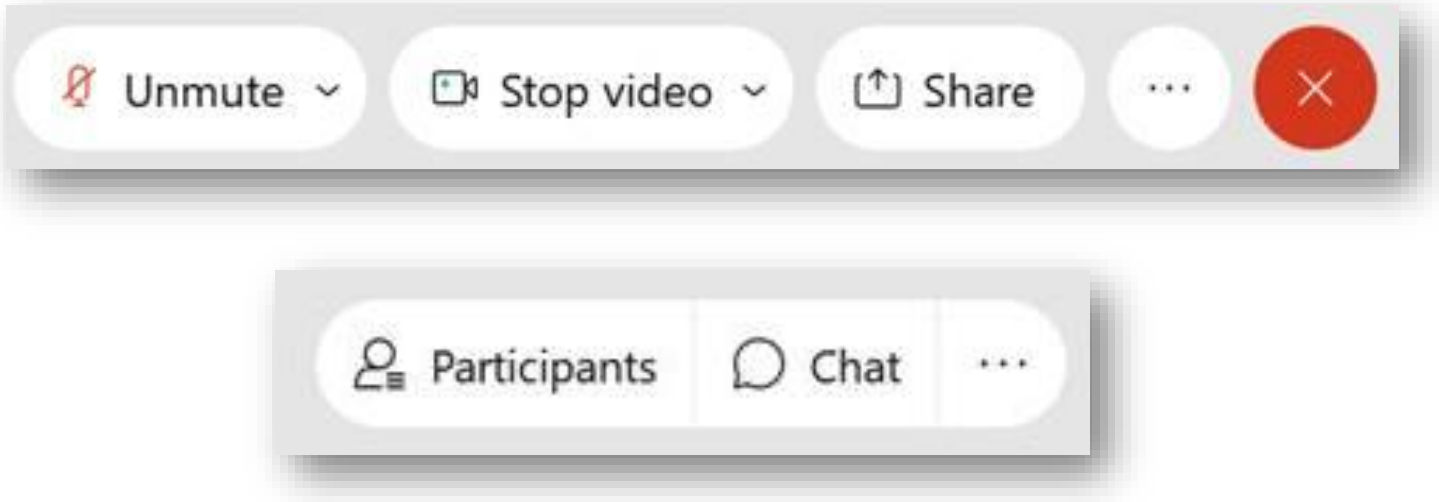
Members join meeting via WebEx link in calendar invite

NOTE: Meeting is live to the public and recorded

Department of Community Services
Transportation Division
March 1, 2021

Meeting Protocols

Using WebEx participation features



For WebEx tech support call or email Liz Stoppelmann:
(916) 200-5123
Liz.Stoppelmann@hdrinc.com

Agenda

1. Welcome, Introductions & Housekeeping
2. Public Comment
3. Project Update
4. Review Community Input on Bridge Types
5. Finalize Evaluation Criteria
6. Open Discussion
7. Next Steps

Introductions and Roll Call

Community Task Force

- **Amy Rathfelder**, Portland Business Alliance
- **Art Graves**, Multnomah County Bike and Pedestrian Citizen Advisory Committee
- **Dennis Corwin**, Portland Spirit
- **Ed Wortman**, Community Member
- **Frederick Cooper**, Laurelhurst Neighborhood Emergency Team and Laurelhurst Neighborhood Association
- **Gabe Rahe**, Burnside Skate Park
- **Howie Bierbaum**, Portland Saturday Market
- **Jackie Tate**, Community Member
- **Jane Gordon**, University of Oregon
- **Jennifer Stein**, Central City Concern
- **Marie Dodds**, AAA of Oregon
- **Neil Jensen**, Gresham Area Chamber of Commerce
- **Paul Leitman**, Oregon Walks
- **Peter Englander**, Old Town Community Association
- **Peter Finley Fry**, Central Eastside Industrial Council
- **Sharon Wood Wortman**, Community Member
- **Stella Funk Butler**, Coalition of Gresham Neighborhood Associations
- **Susan Lindsay**, Buckman Community Association
- **Tesia Eisenberg**, Mercy Corps
- **William Burgel**, Portland Freight Advisory Committee

Public Comment

Project Update

Draft Environmental Impact Statement

Public Comment Period Open: February 5 – March 22

Objective: Share findings of the environmental analysis and allow for public review and comment on the DEIS. 45-day comment period.

Key Activities:

- Online open house
- Briefings
- In-person hearing by appointment on March 3rd
- Voicemail, emails, comment form, snail mail
- E-newsletters, news releases and social media

Project Update

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Working Groups

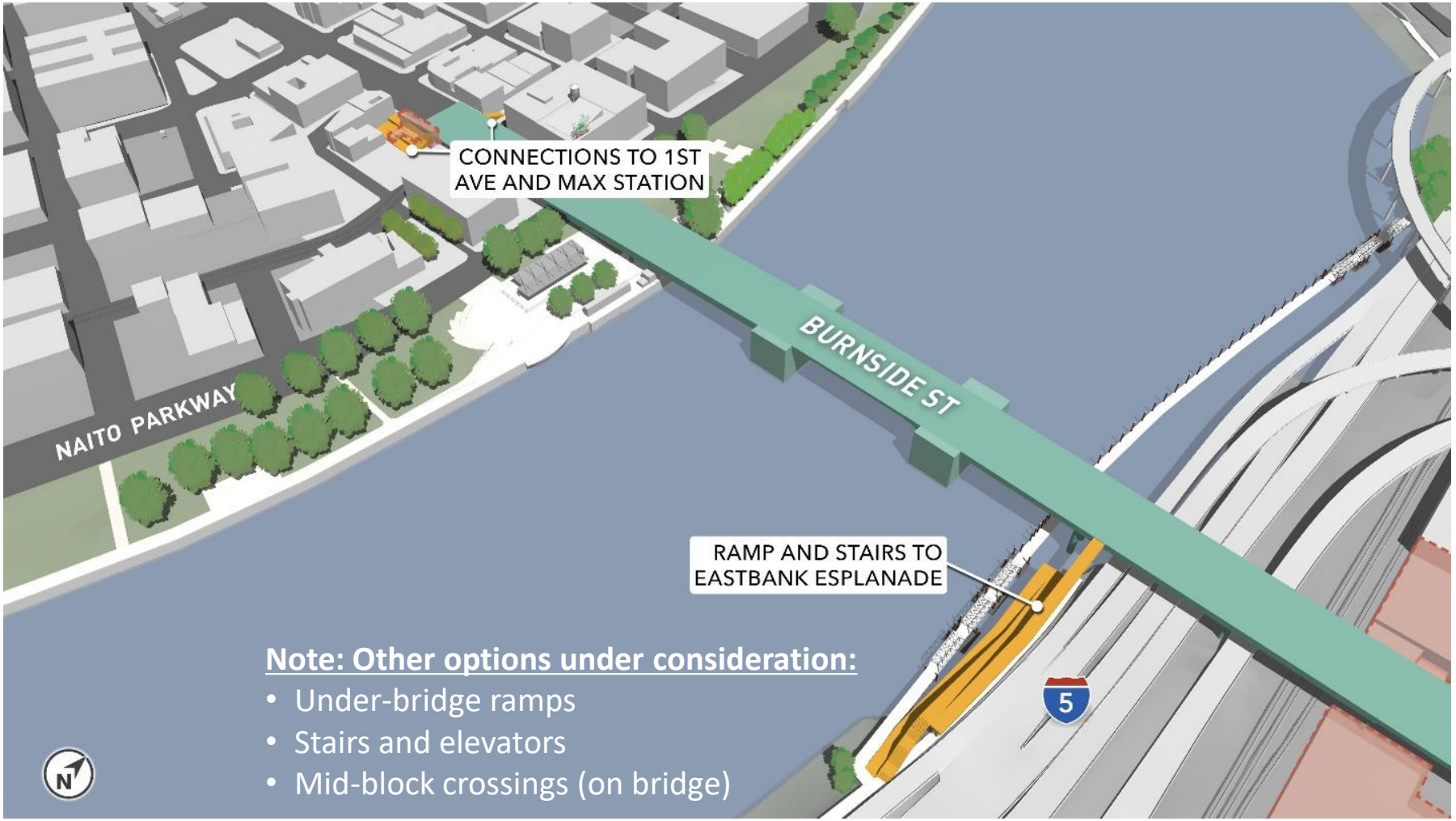
Urban Design & Aesthetics	• Aesthetic / Urban Design insights per bridge type • Recommendation on type selection evaluation criteria	Mar 2021
Bridge & Seismic	• Technical bridge design differentiators • Seismic performance findings	Feb 25, 2021
Constructability	• Construction methods and durations • Range of potential impacts	March 2021
Natural Resources	• Impacts to natural resources	Mar 2021
Diversity, Equity & Inclusion	• Bridge option impacts to DEI principles	Jan 2021
Multi-Modal	• Technical input on the bridge uses, typical sections, and connections to the existing multi- modal networks	April 2021
Historic/Cultural Resources	• Impacts to historic and cultural resources	Mar 2021

**CTF members invited to attend working group meetings as desired*

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Bike/Pedestrian & ADA Access



Note: Other options under consideration:

- Under-bridge ramps
- Stairs and elevators
- Mid-block crossings (on bridge)

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Bike/Pedestrian & ADA Access – Ongoing Outreach

- Disability Rights Oregon
- Mult Co Disability Advisory Council
- Mult Co Aging Services Advisory Council
- MultCo Bike/Ped Citizen Advisory Committee
- MultCo REACH/Achieve Program
- Portland Bike Advisory Committee
- Portland Pedestrian Advisory Committee
- Portland Freight Advisory Committee
- Mercy Corps
- Social Services Working Group (including Portland Rescue Mission)
- Nightstrike (social service program)
- Oregon Walks
- City of Portland

Other ADA groups we're also trying to connect with:

- Independent Living Resources
- Portland Commission on Disability
- TriMet Committee on Accessible Transportation

Technical Update

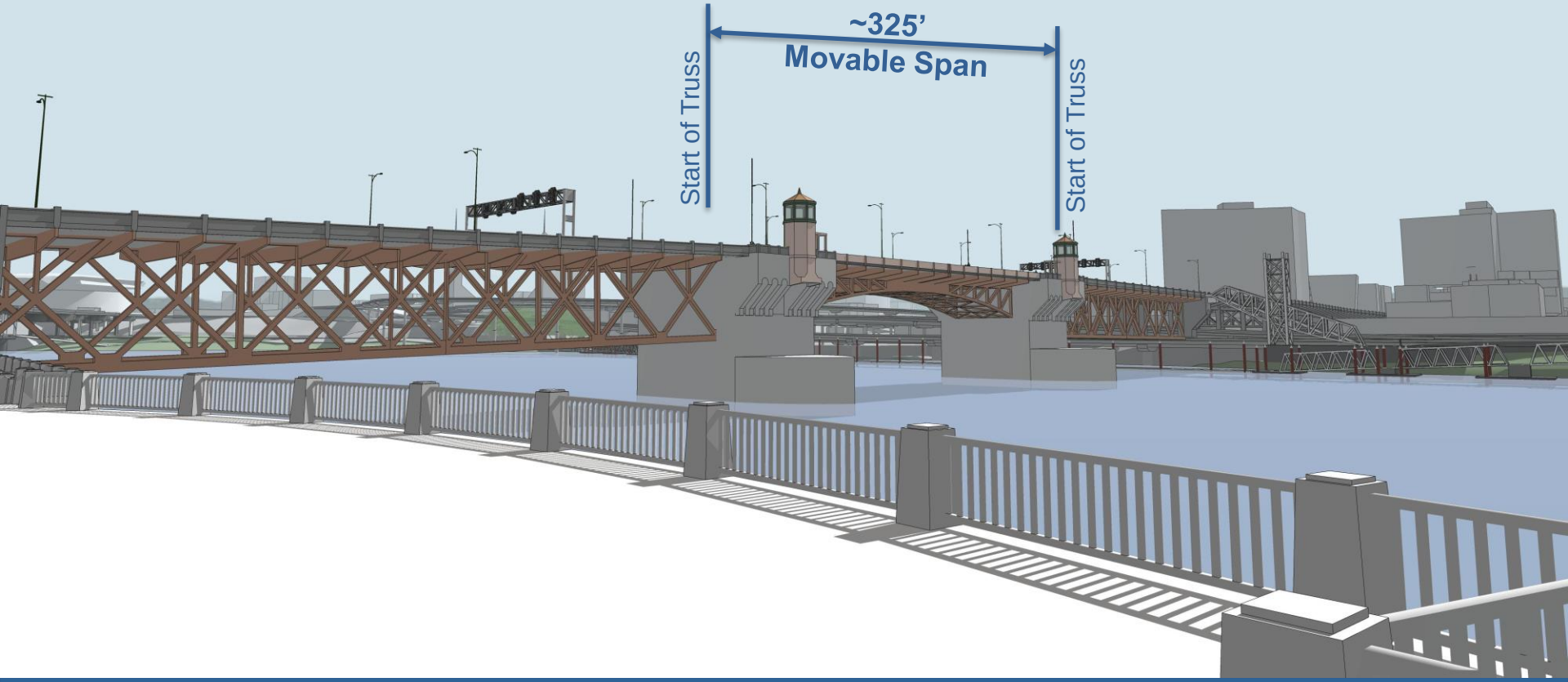
Comparison of short movable vs. long movable span options

Project Update – Movable Span

EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

Existing Movable Span

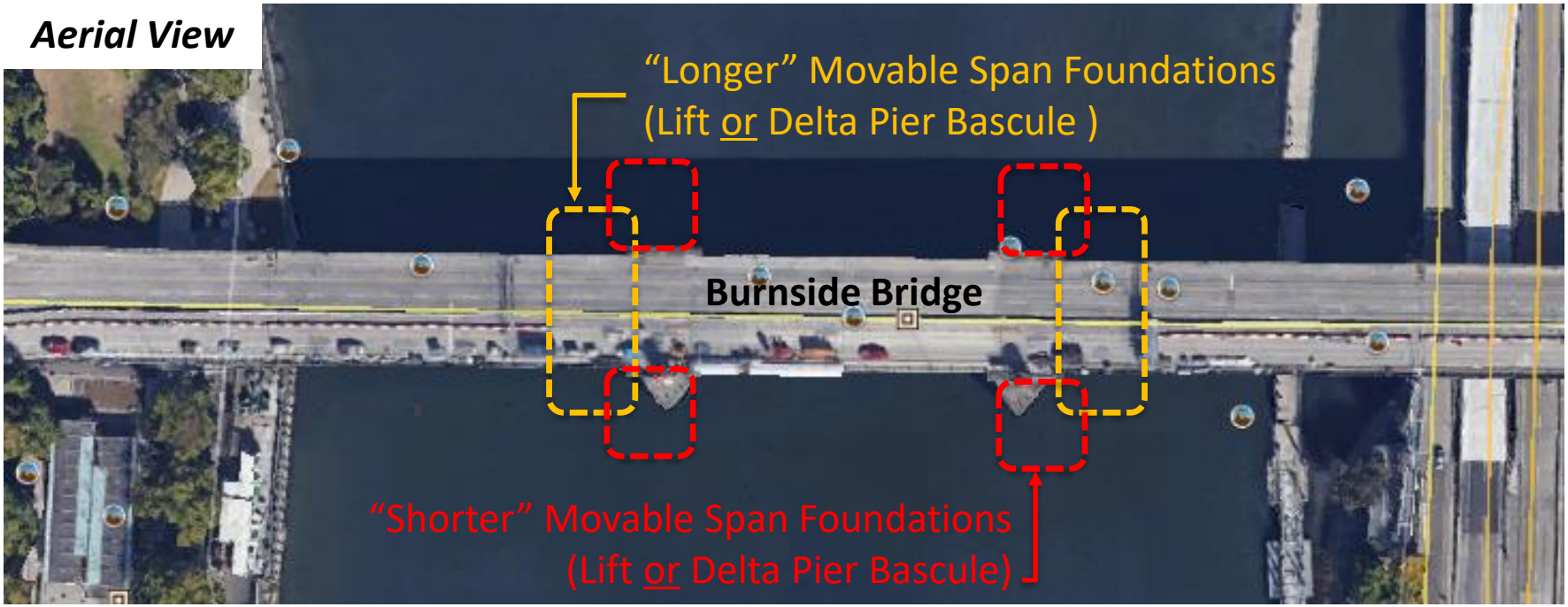


Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Short movable and long movable span comparison

Aerial View



Input from UDAWG:

- Reduce the pier size to the maximum extent possible (reduces in-water footprint)
- Position the piers as far away from the riverbanks as possible (better for scale)

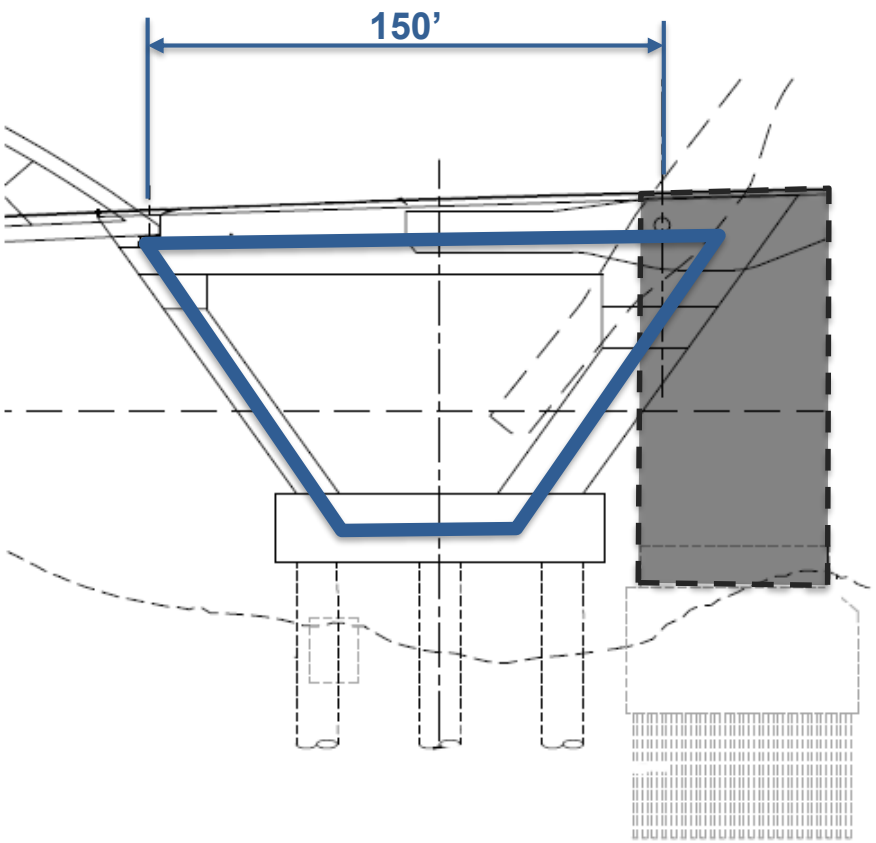
Technical Opportunities:

- Potential to reduce construction cost with a shorter movable span
- Potential to reduce traffic detour duration by 1 year

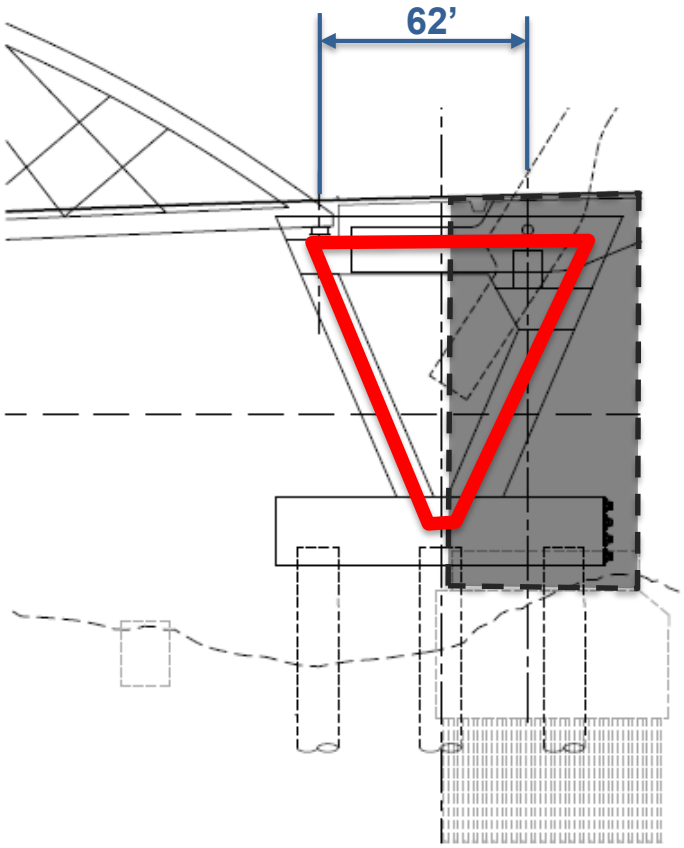
Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Short movable and long movable span comparison



Long Movable Span (Bascule)



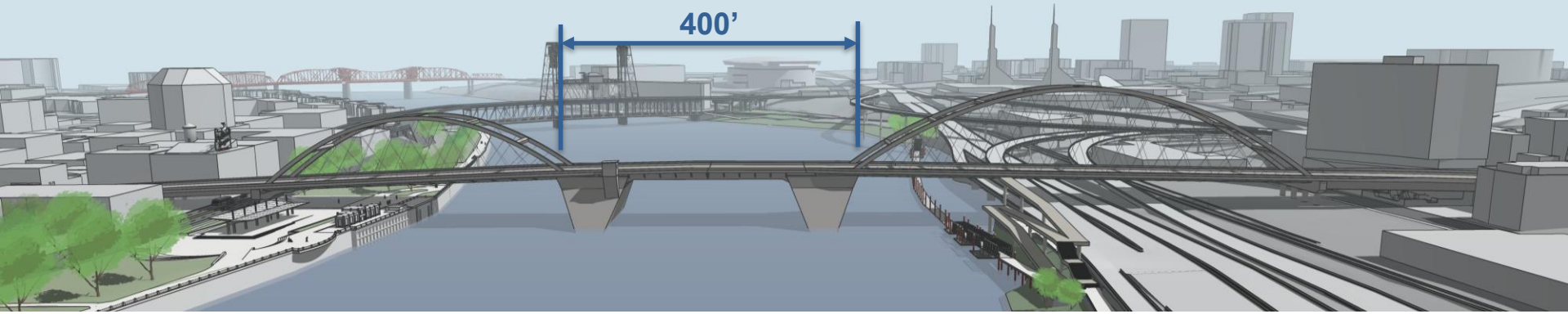
Short Movable Span (Bascule)

Project Update

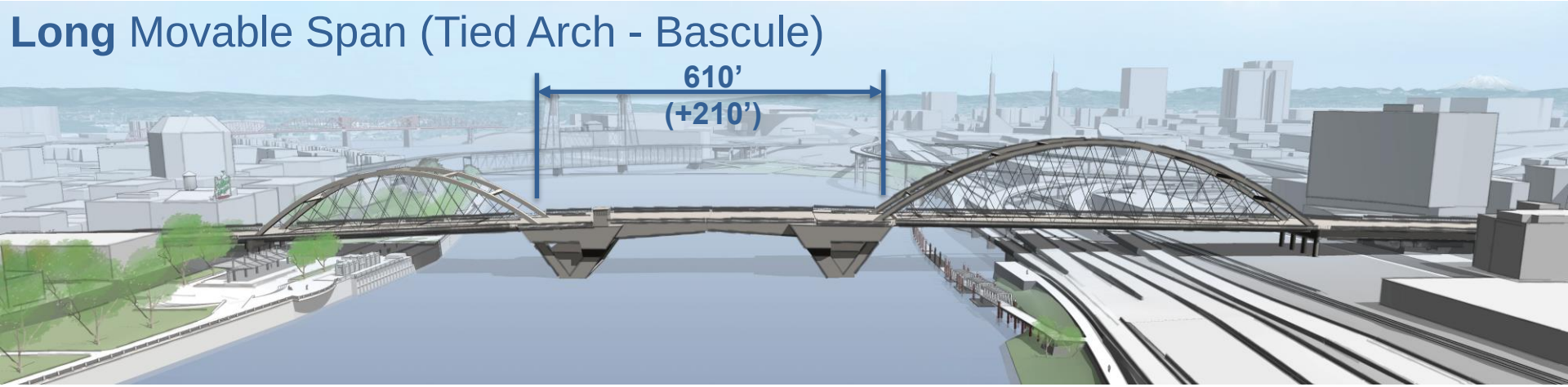
EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

Short Movable Span (Tied Arch - Bascule)



Long Movable Span (Tied Arch - Bascule)

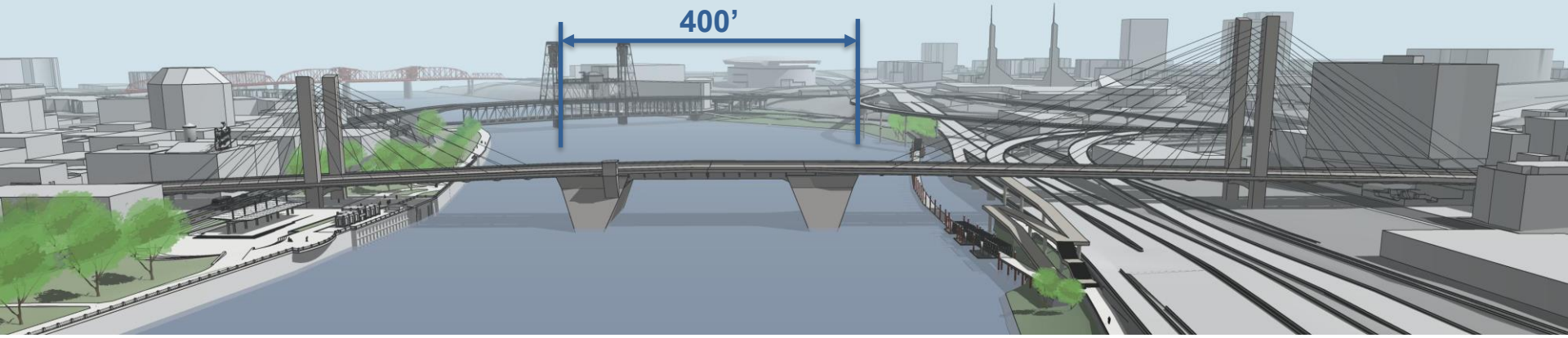


Project Update

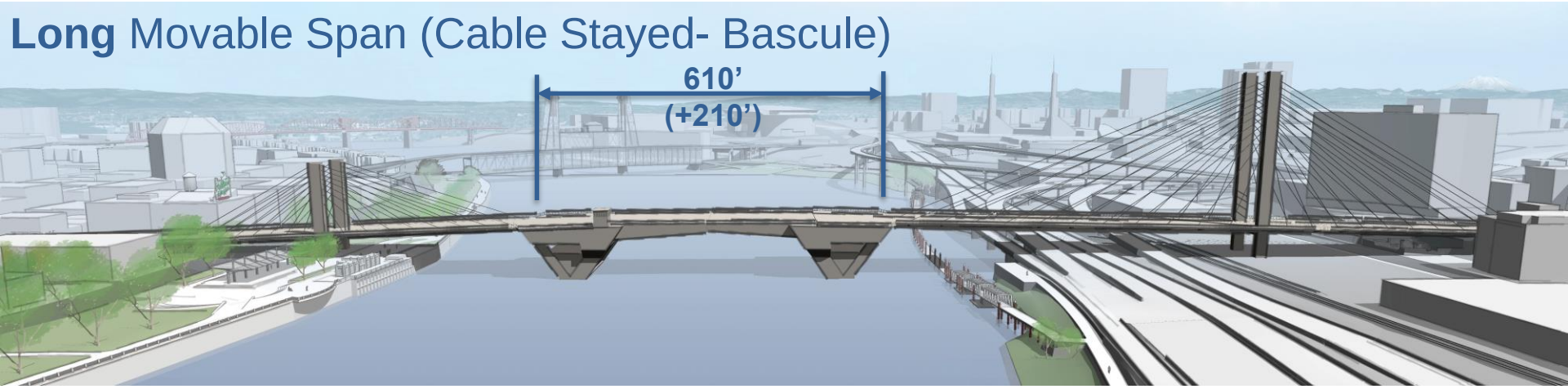
EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

Short Movable Span (Cable Stayed - Bascule)



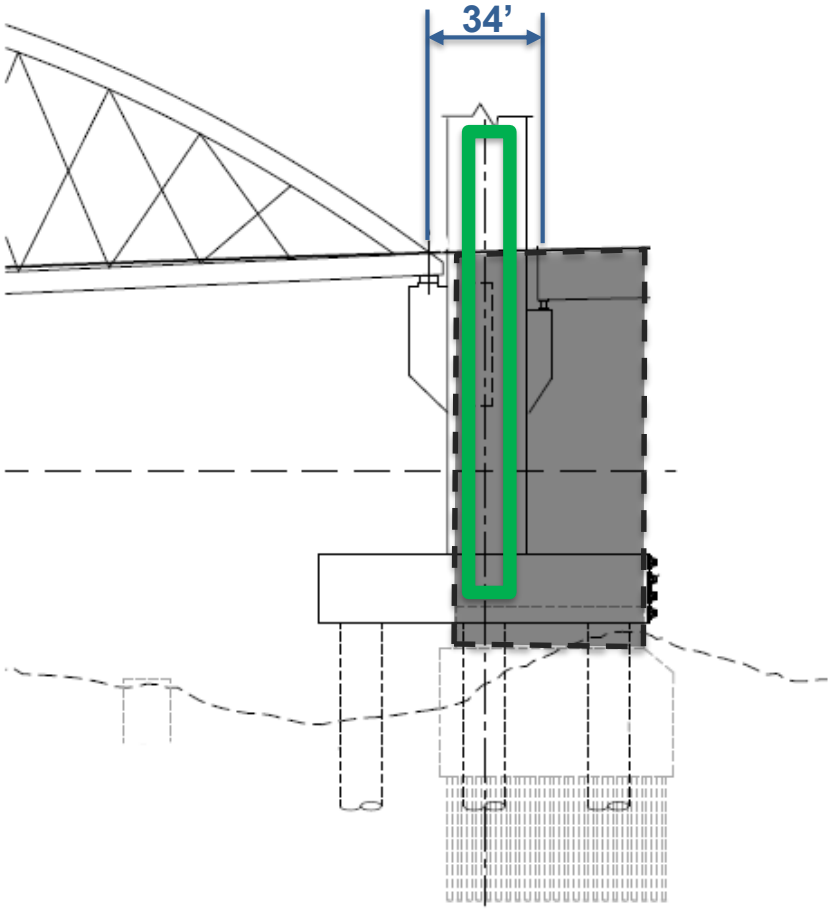
Long Movable Span (Cable Stayed- Bascule)



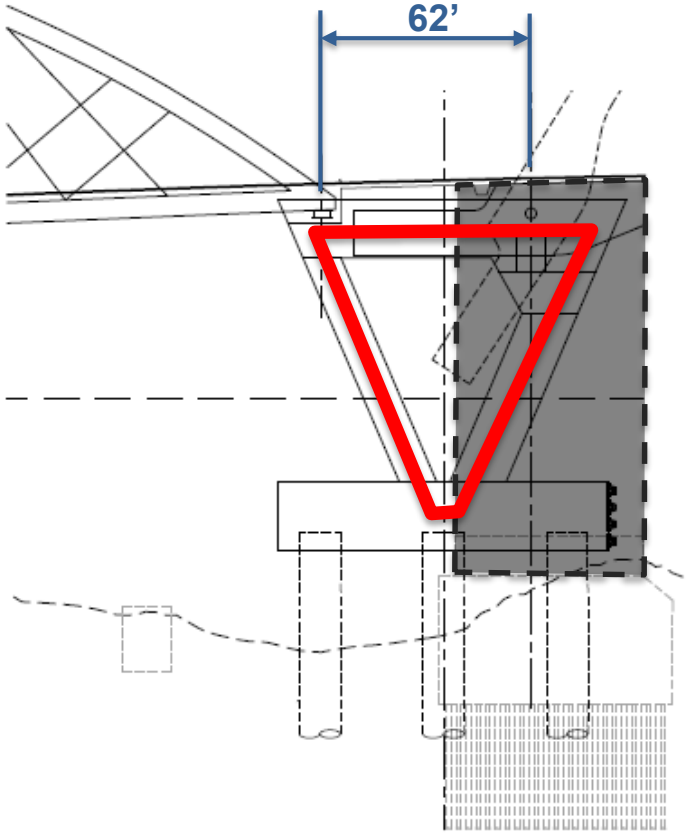
Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Short movable and long movable span comparison



Long Movable Span (Lift)



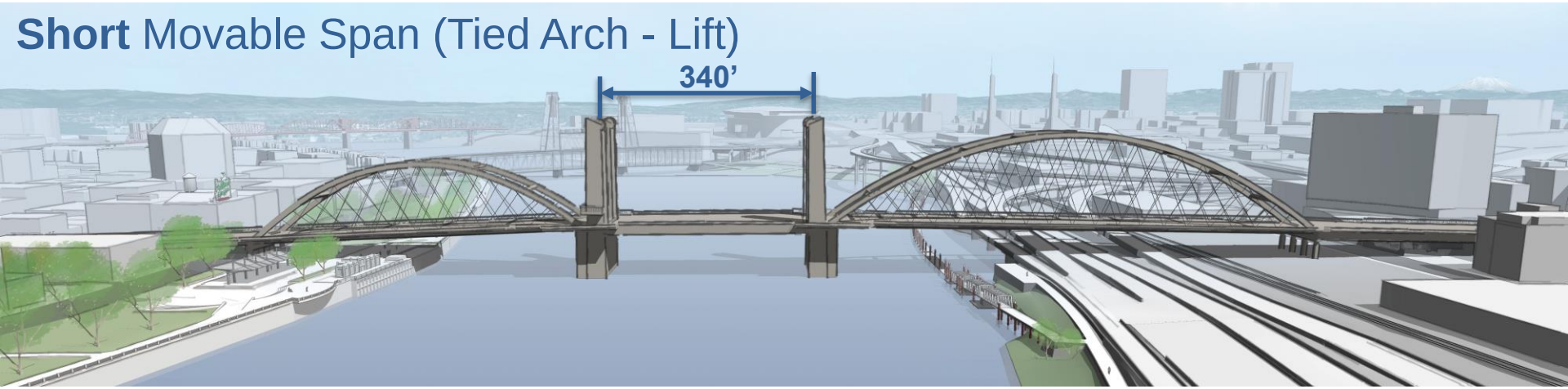
Short Movable Span (Bascule)

Project Update

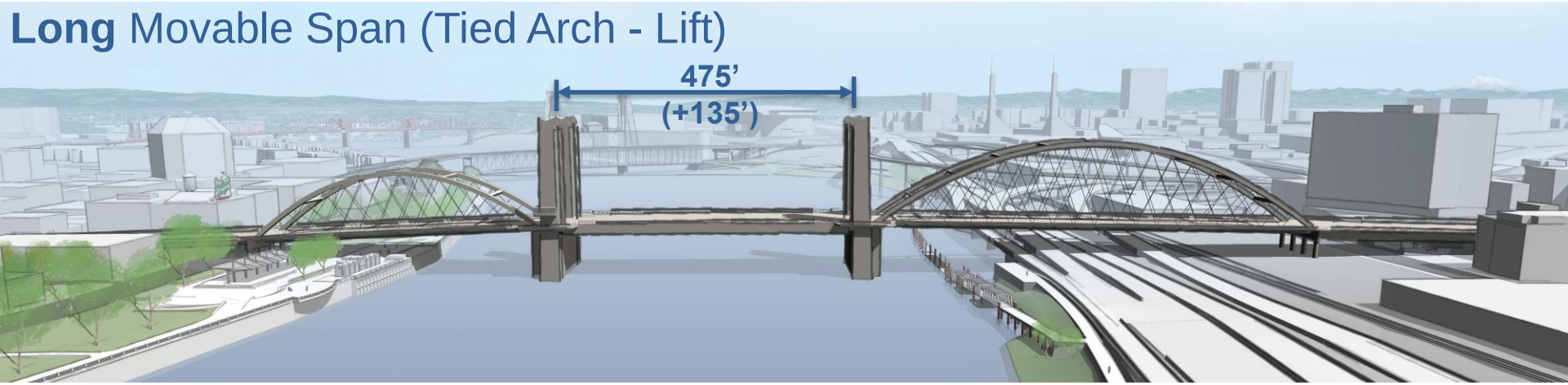
EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

Short Movable Span (Tied Arch - Lift)



Long Movable Span (Tied Arch - Lift)

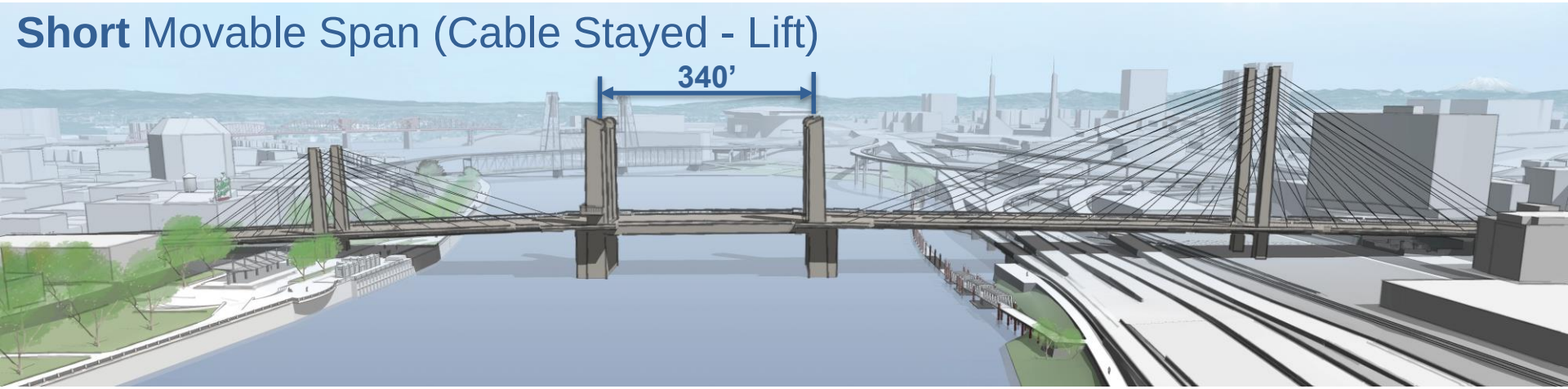


Project Update

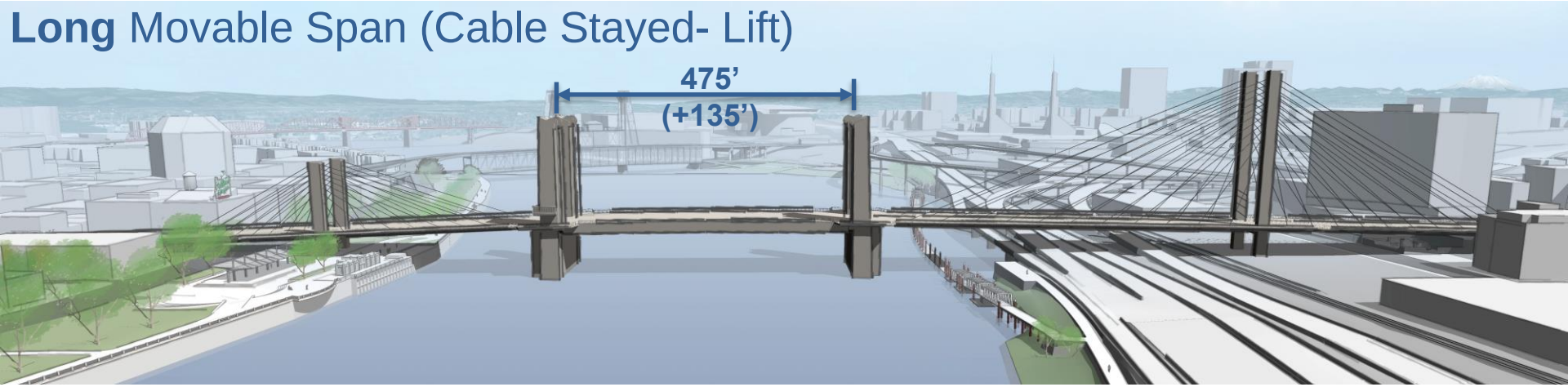
EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

Short Movable Span (Cable Stayed - Lift)



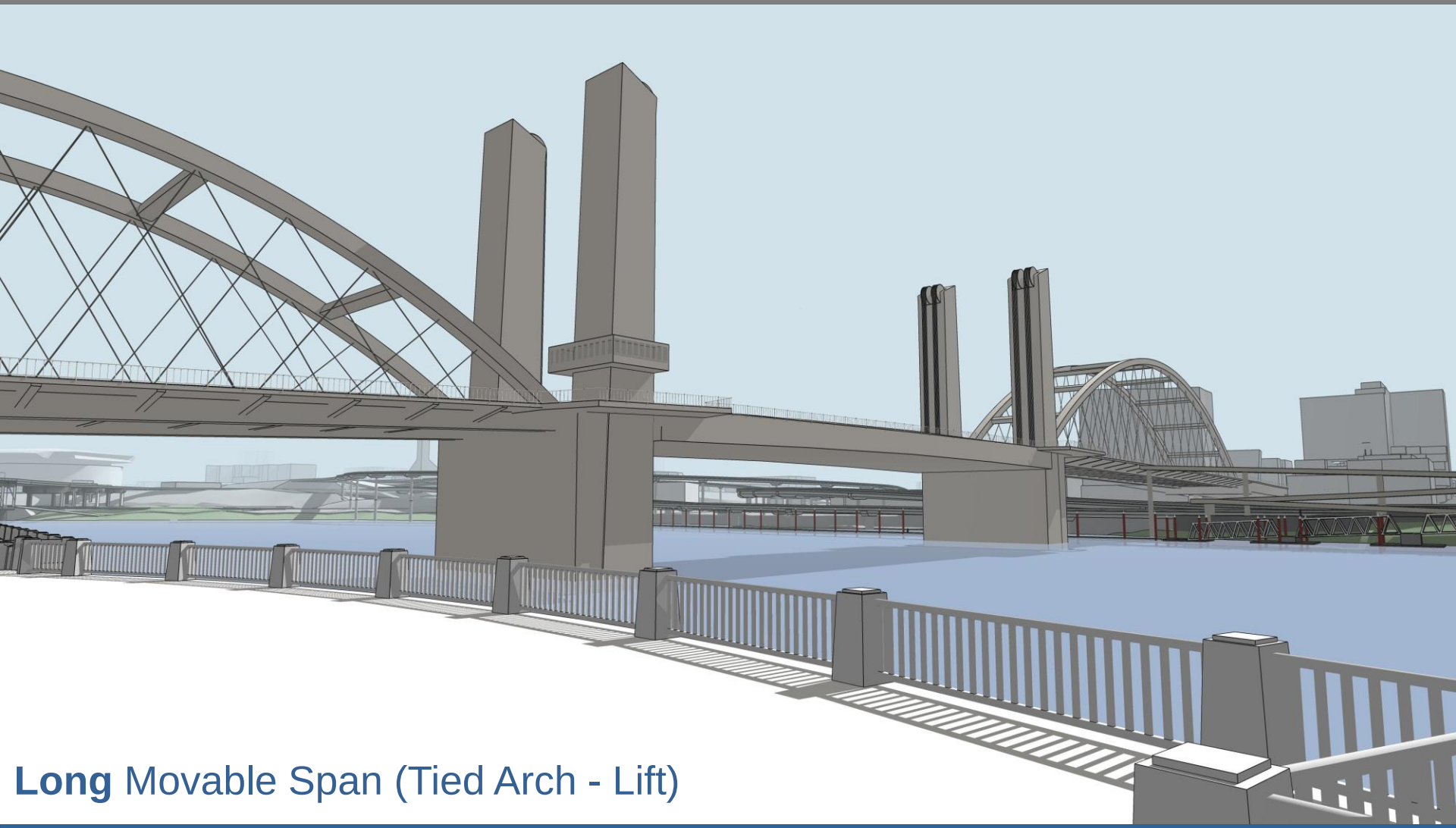
Long Movable Span (Cable Stayed- Lift)



Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

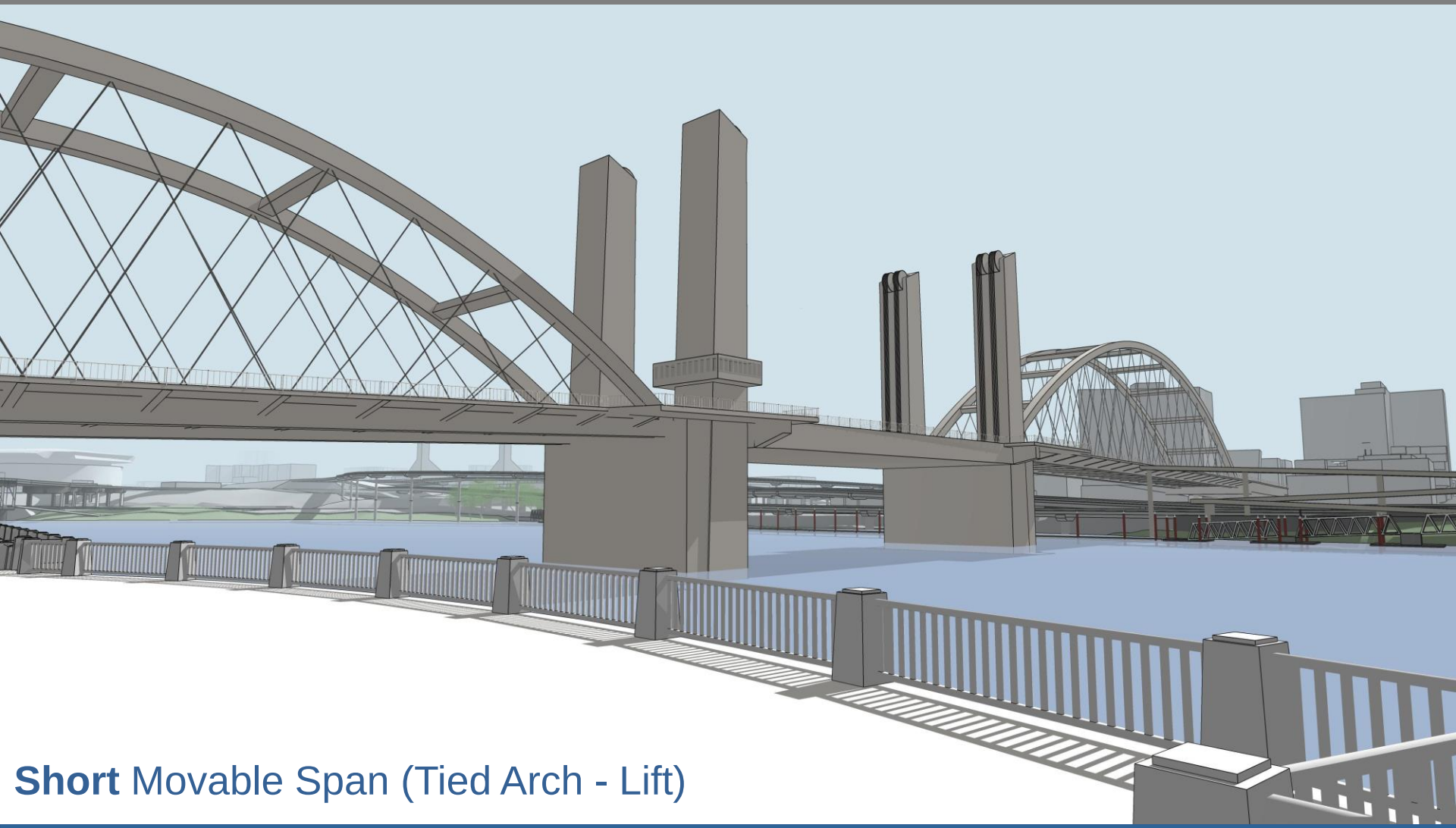


Long Movable Span (Tied Arch - Lift)

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

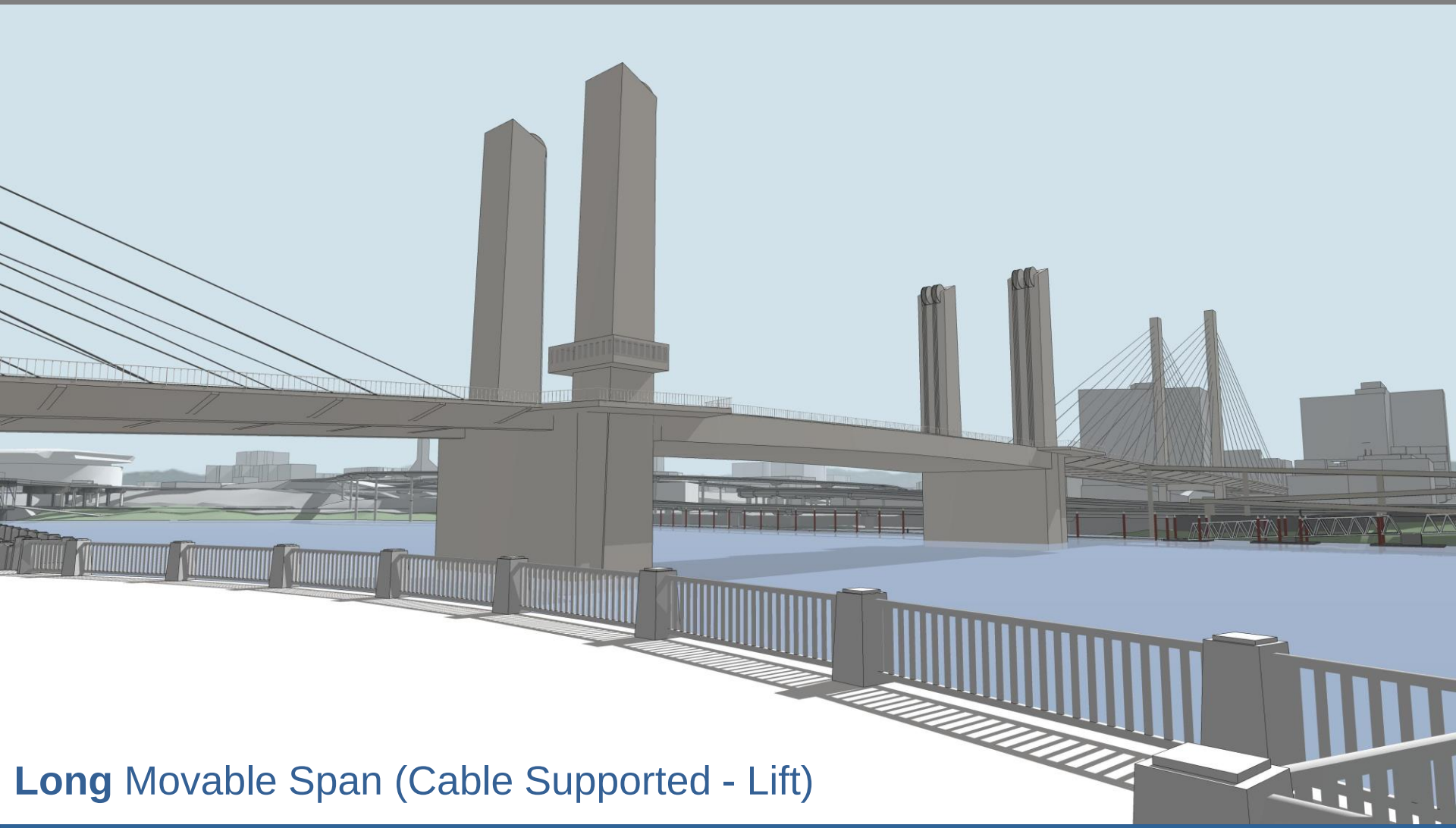


Short Movable Span (Tied Arch - Lift)

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

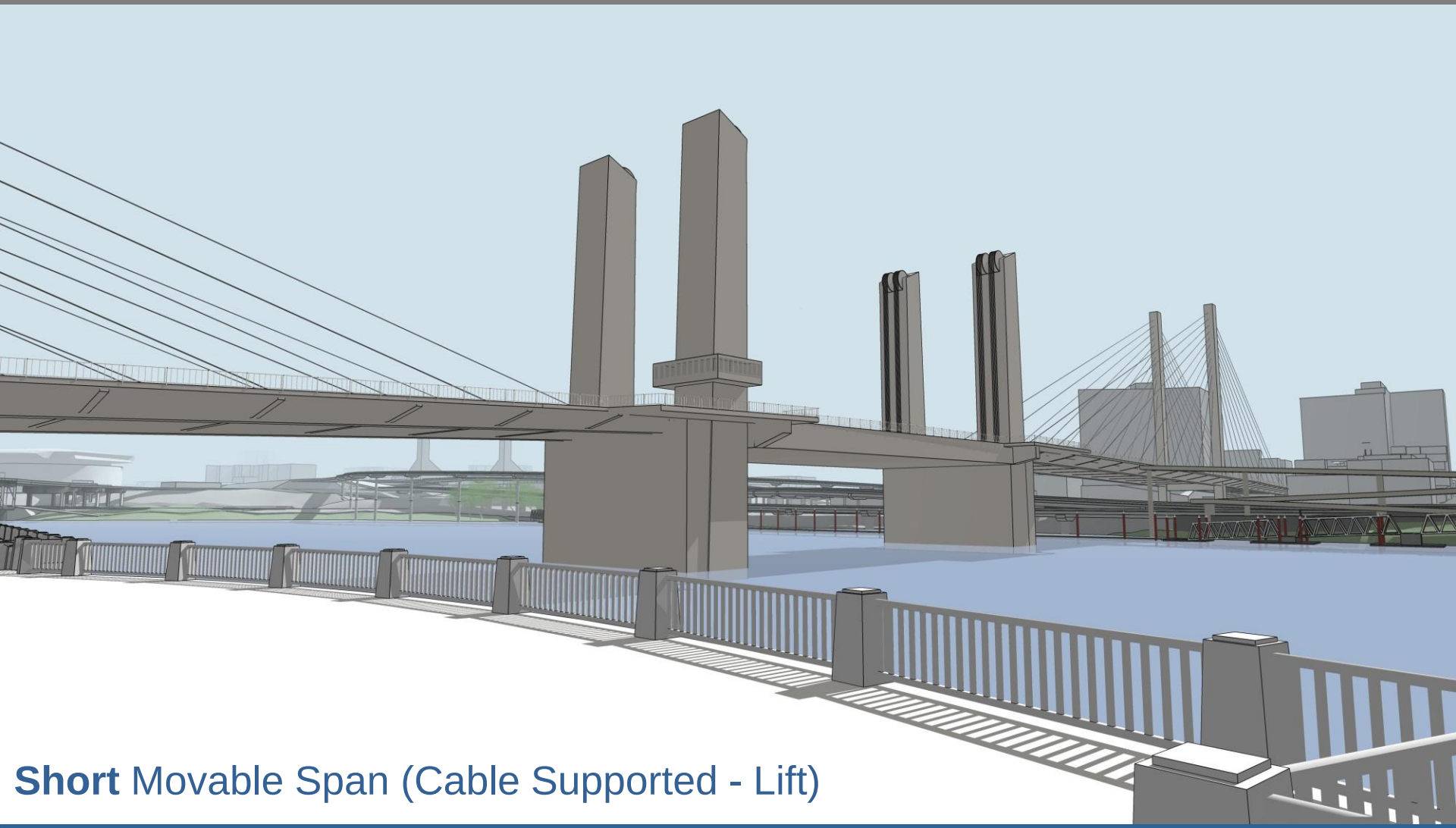


Long Movable Span (Cable Supported - Lift)

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

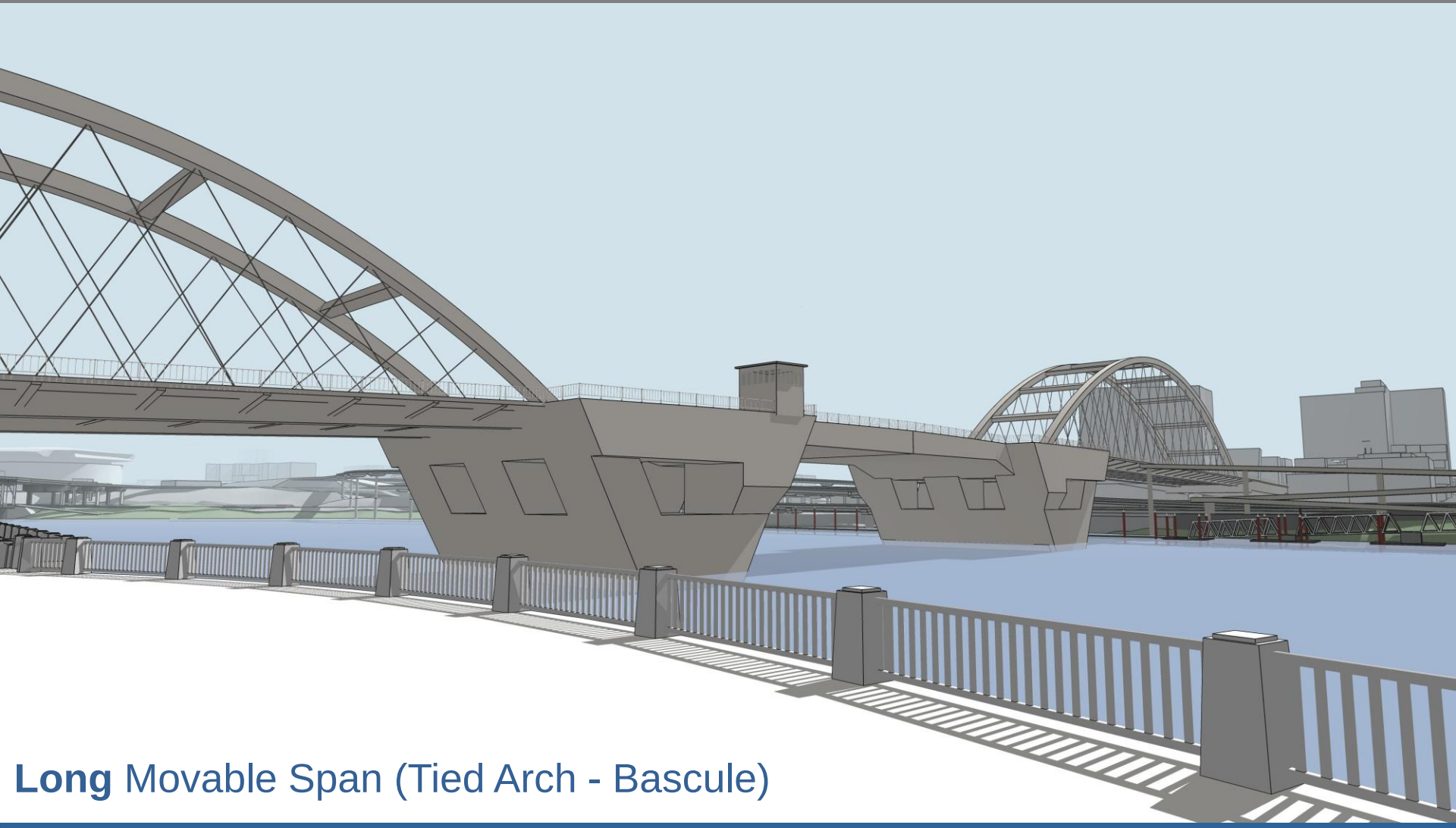
Technical Update – Movable Span Length (Short vs Long)



Short Movable Span (Cable Supported - Lift)

Project Update

Technical Update – Movable Span Length (Short vs Long)

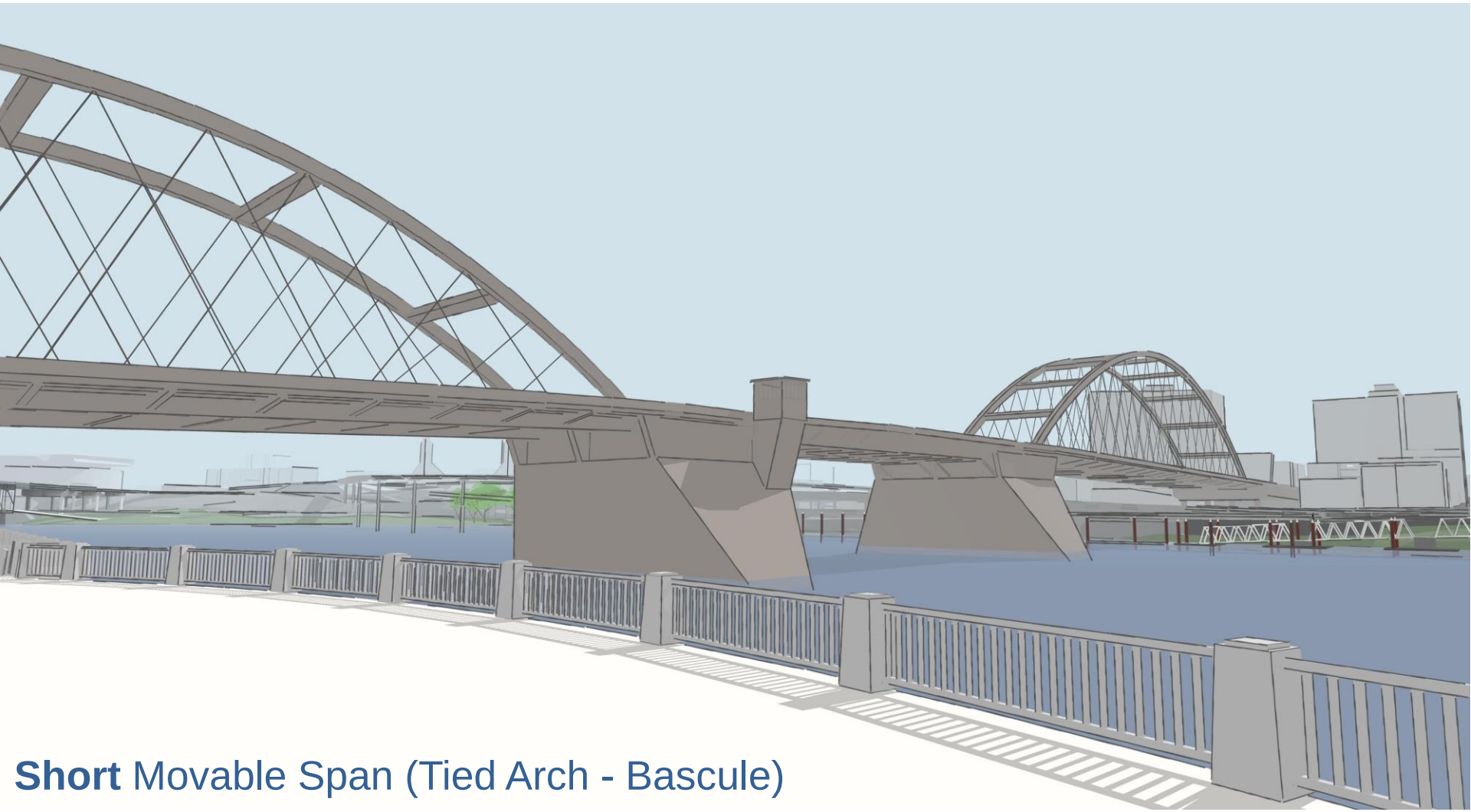


Long Movable Span (Tied Arch - Bascule)

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

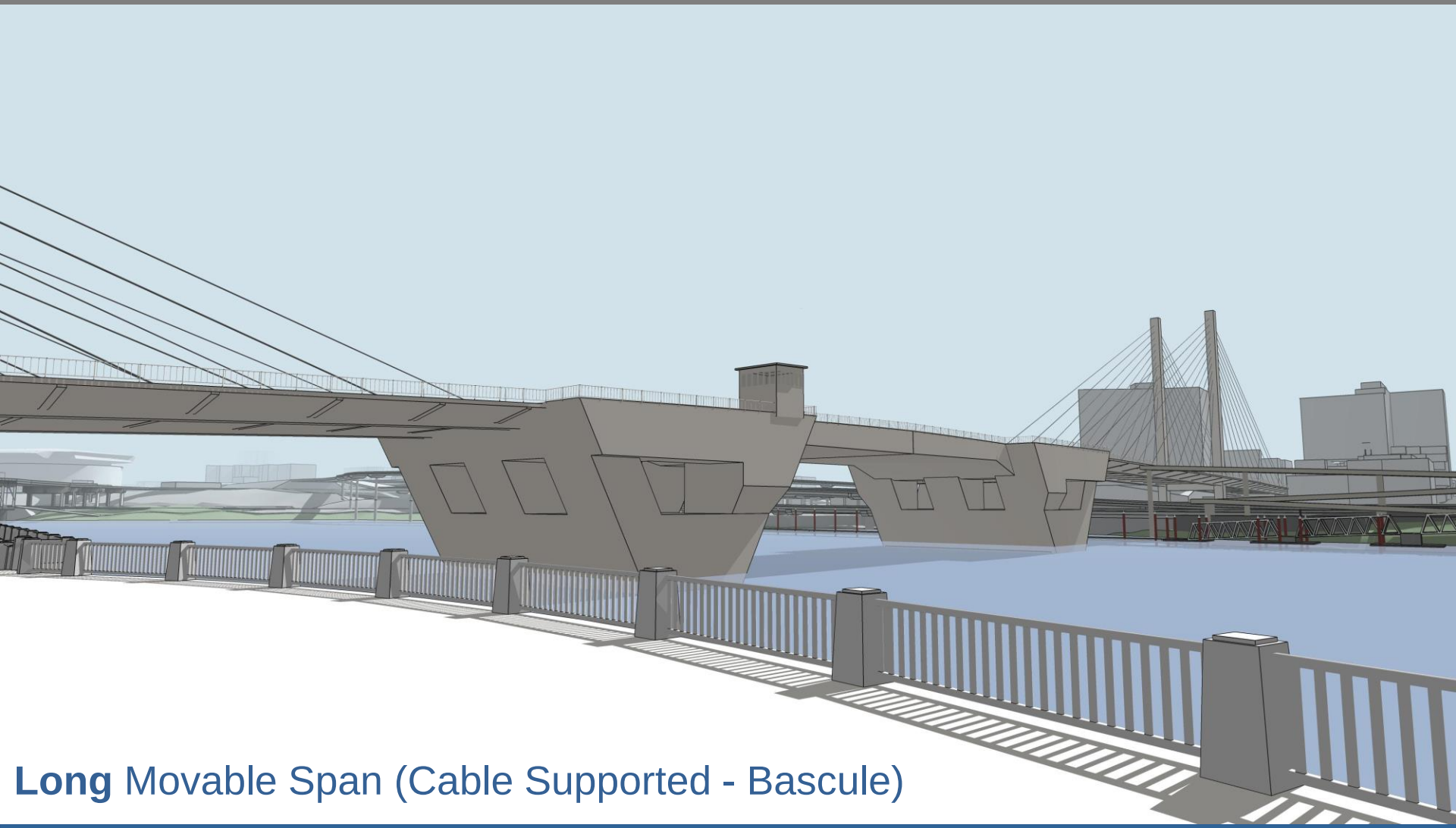


Short Movable Span (Tied Arch - Bascule)

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)



Long Movable Span (Cable Supported - Bascule)

Project Update

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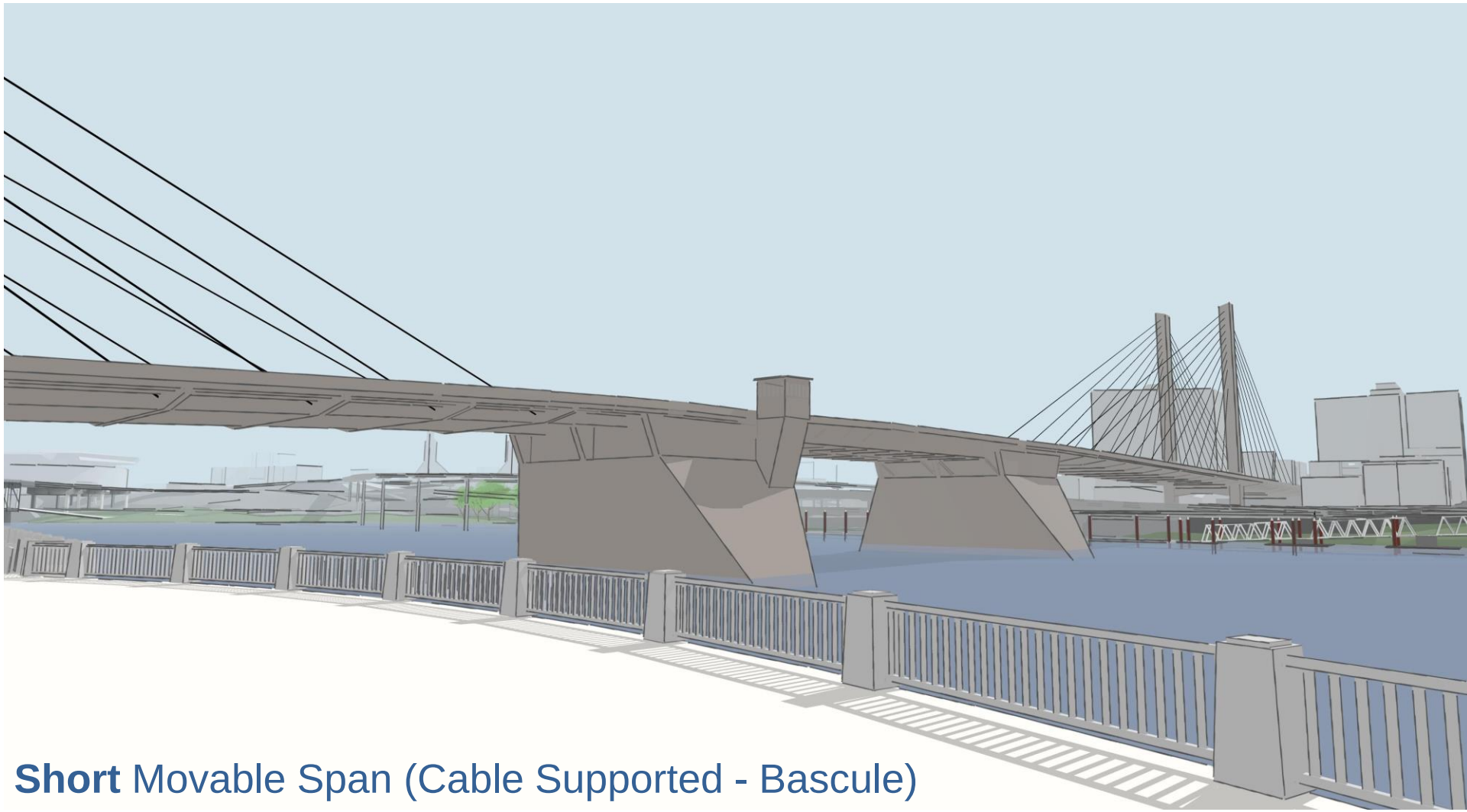
Technical Update – Movable Span Length (Short vs Long)



Short Movable Span (Cable Supported - Bascule)

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Technical Update – Movable Span Length (Short vs Long)

Technical recommendation:

Advance only the Short Movable Span options

Why?

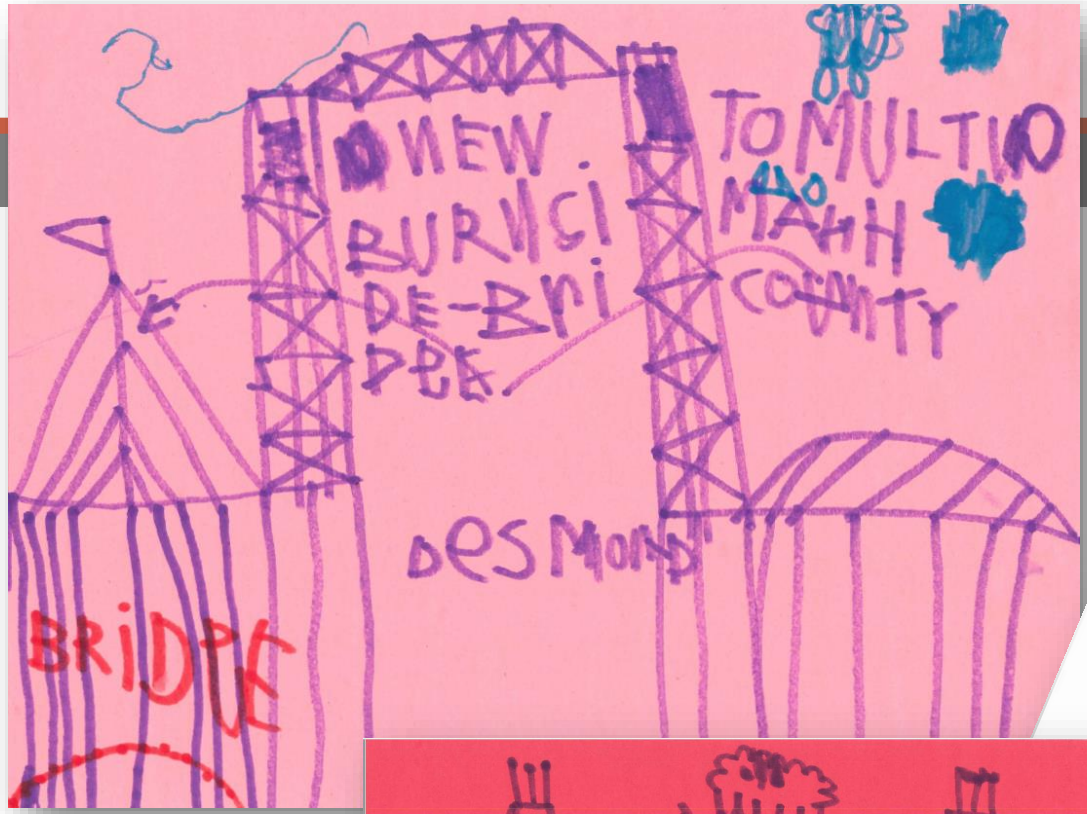
- ✓ Reduces the exposed pier size to almost that of the existing bridge
  - Better for overall river hydraulics
  - Better for side channel vessel usage
  - Better overall aesthetic scale
- ✓ Reduces construction impacts
  - Enables construction of foundations while bridge is open to traffic
  - Reduces traffic detour duration by approximately 1 year
- ✓ Reduces construction cost without sacrificing seismic or bridge opening performance
  - Reduces cost by $20M - 50M (depending on the bridge type)

Trade-offs

- X Taller approach span superstructure heights
- X Longer underwater bridge foundation (parallel to river)

Bridge Type Selection

Community Input Review


NEW
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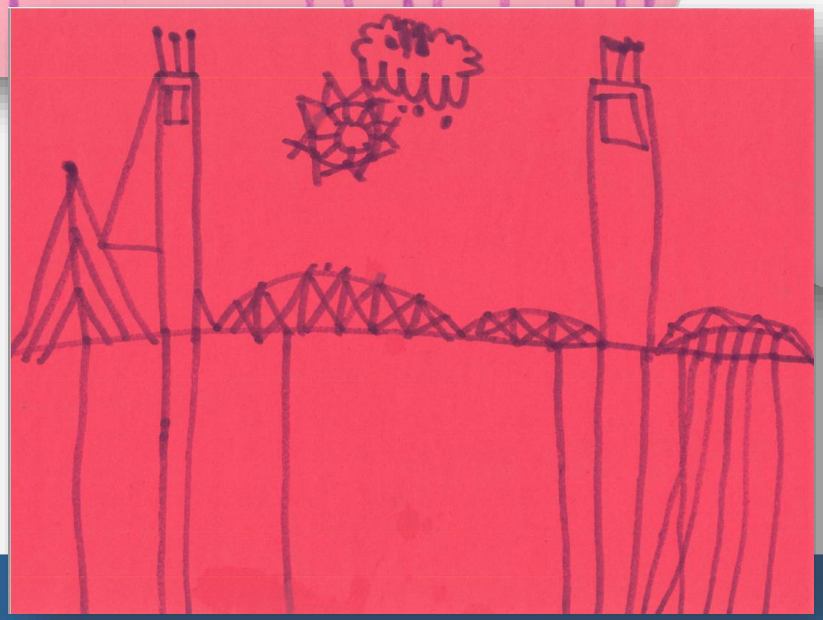
BRIDGE




To Whom it May Concern,
My son Desmond (5 years old) is very
interested in bridges. He is especially
excited about the new Burnside bridge
project. He would like to be a
civil engineer so that he can
design + build bridges.
Here we have included two
sketches of Desmond's proposed new
Burnside bridge for your consideration.
Enjoy!
Thank you for the work you do.
Sincerely,
Michaela Cribb
and
DESMOND

Outreach

By the Numbers

60+	**BRIEFINGS** to agencies, individuals, and organizations
25	**DEI** organizations reached
11,950	**UNIQUE VISITORS** to the online open house and survey
1,900+	**SURVEY RESPONSES**
6	In-language **TRANSLATIONS** of the online open house and materials
285k	Social media **IMPRESSIONS**
3,183	E-newsletter **RECIPIENTS**
119	**Text Message RECIPIENTS**
12	**NEWS RELEASES AND E-NEWSLETTERS**

What we heard

For the WEST APPROACH SPAN, if you had to choose, which bridge type features would you prefer?

Overall Look and Feel

76% - Above deck structure that matches on both the east and west approaches

21% - An uneven or unbalanced look that has above deck structure on the east but no above deck structure on the west

3% - Unsure

What we heard

For the WEST APPROACH SPAN, if you had to choose, which bridge type features would you prefer?

On and Under Bridge Experience

75% - Structure above the bridge deck with a higher ceiling height under the bridge

23% - Unobstructed views on the bridge with reduced vertical clearance under the bridge

2% - Unsure

What we heard

For the WEST APPROACH SPAN, if you had to choose, which bridge type features would you prefer?

Cost and Construction

64% - Look, feel and experience are more important to me than cost

33% - I'm willing to forego a certain look, feel and experience of the bridge if it is too expensive

3% - Unsure

What we heard

For the MOVABLE SPAN, if you had to choose, what would you prefer?

71% - Unobstructed views on the bridge with larger in-water piers (Bascule)

25% - Vertical towers above the bridge deck with smaller in-water piers (Lift)

4% - Unsure

What we heard

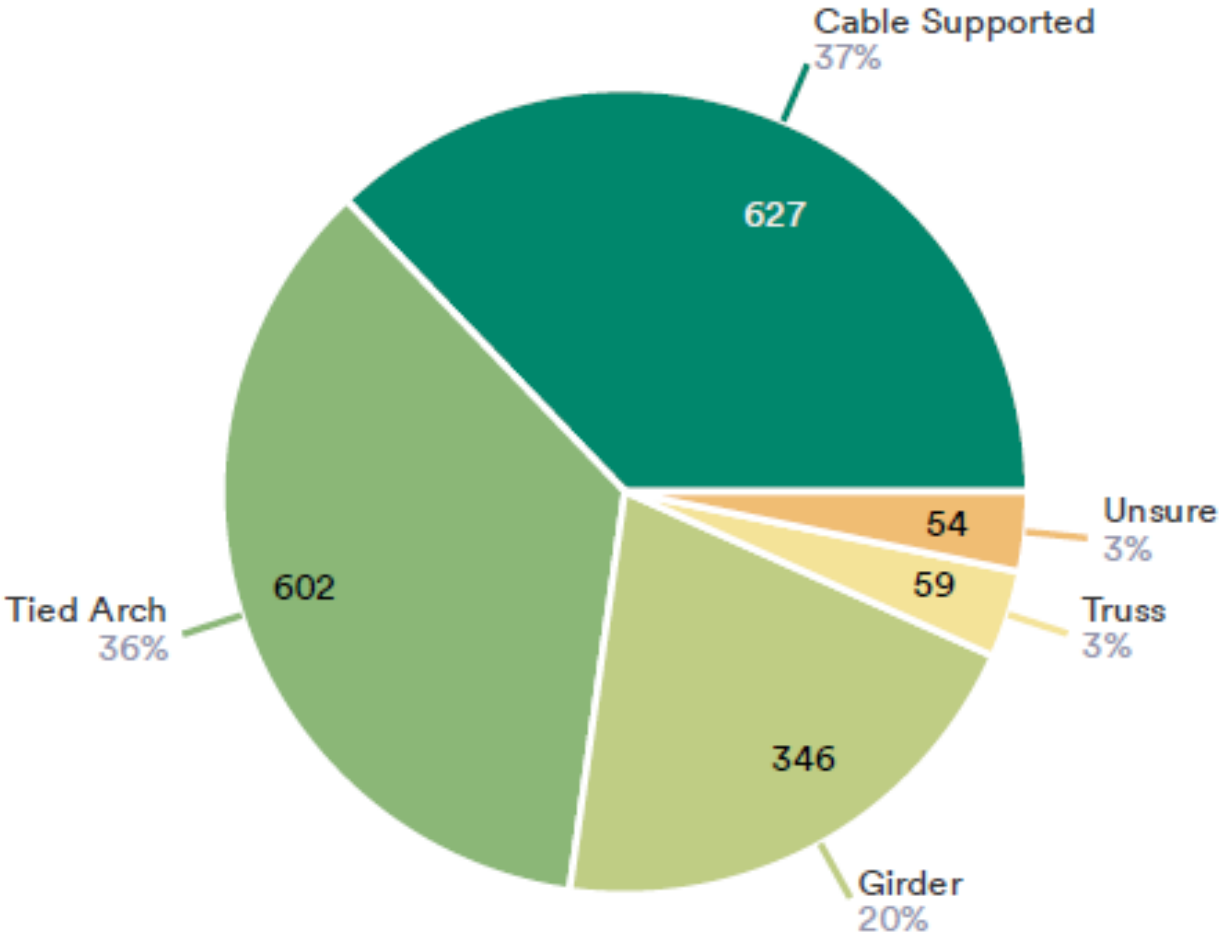
For the west, middle, and east sides, which bridge types and related features do you think do the best job of...

- Complementing or responding to the surrounding area and neighborhoods?
- Acknowledging the historic and natural surroundings?
- Presenting a seismically-resilient, modern design?
- Setting the tone for future development throughout its 100-year design life?

(Responses on subsequent slides….)

What we heard

…On the west side



Key Themes:

73% Cable Supported and Tied Arch – aesthetic preferences, symmetrical and forward-thinking design

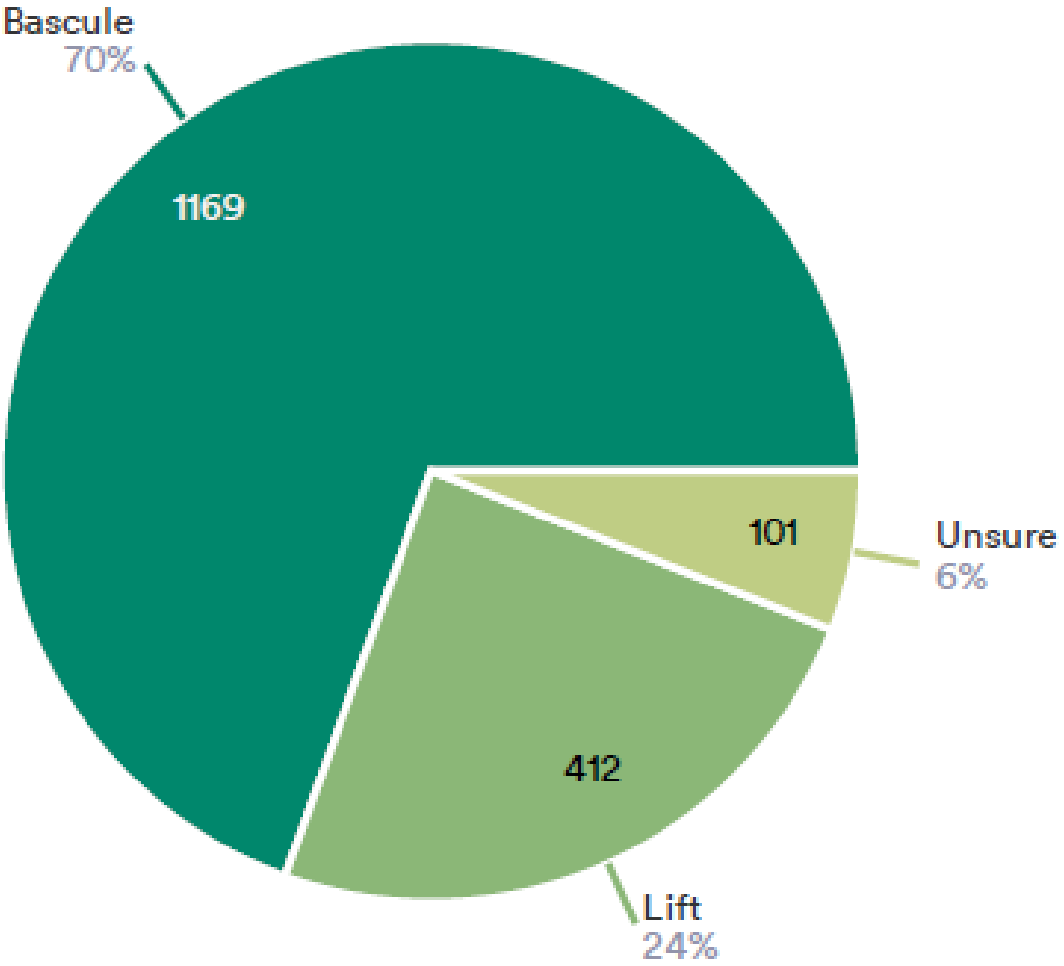
20% Girder – unobstructed views and preserves feel of Old Town

3% Truss – fits in well with other bridges and is a nod to historic designs

3% Unsure – keep the current bridge, whichever is fastest and cheapest to build

What we heard

…In the middle



Key Themes:

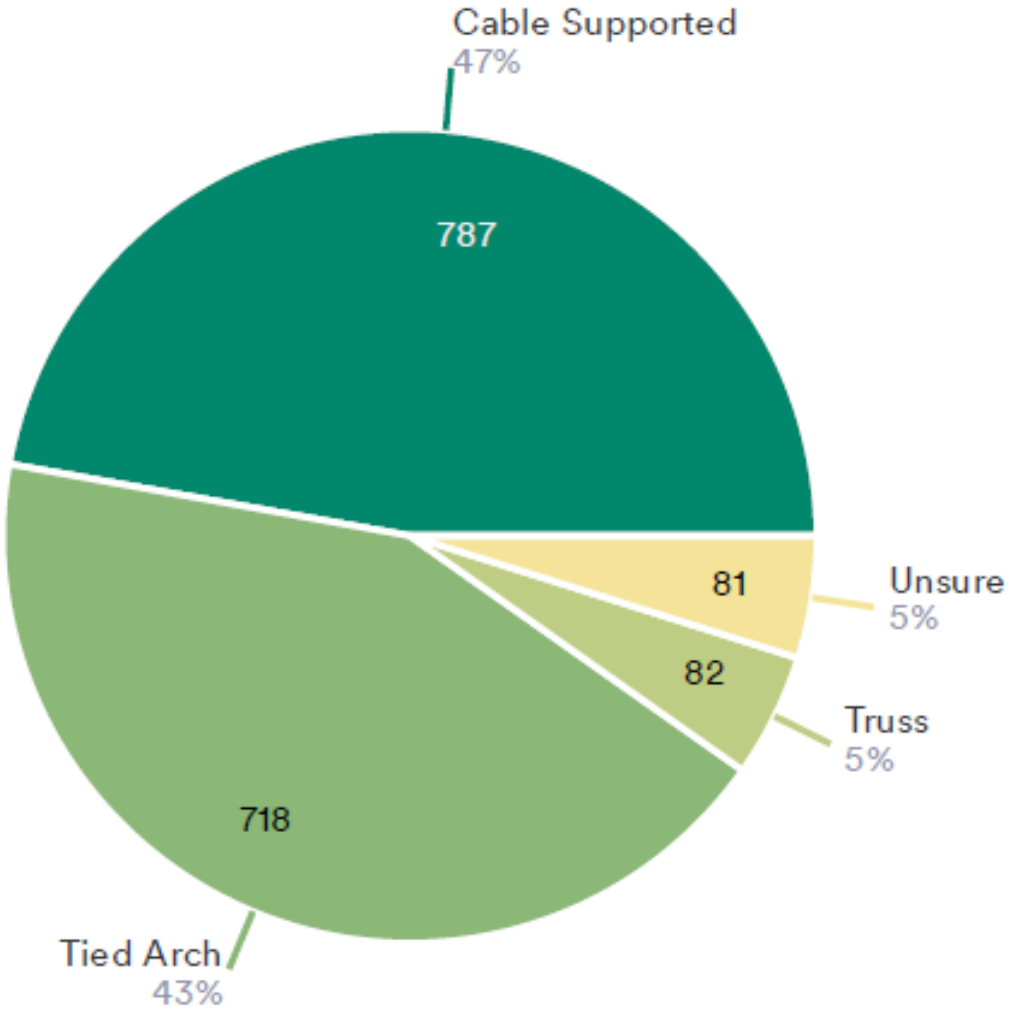
70% Bascule – unobstructed views and clean design, unlimited vertical clearance

24% Lift – cheaper, would complement other superstructures, less in-river impacts

6% Unsure – depends on cost, length of construction, environmental impacts, whichever is quicker to open/close

What we heard

…On the eastside



Key Themes

90% Cable Supported and Tied Arch – aesthetic preferences, symmetrical, superstructure would fit well with east side skyline

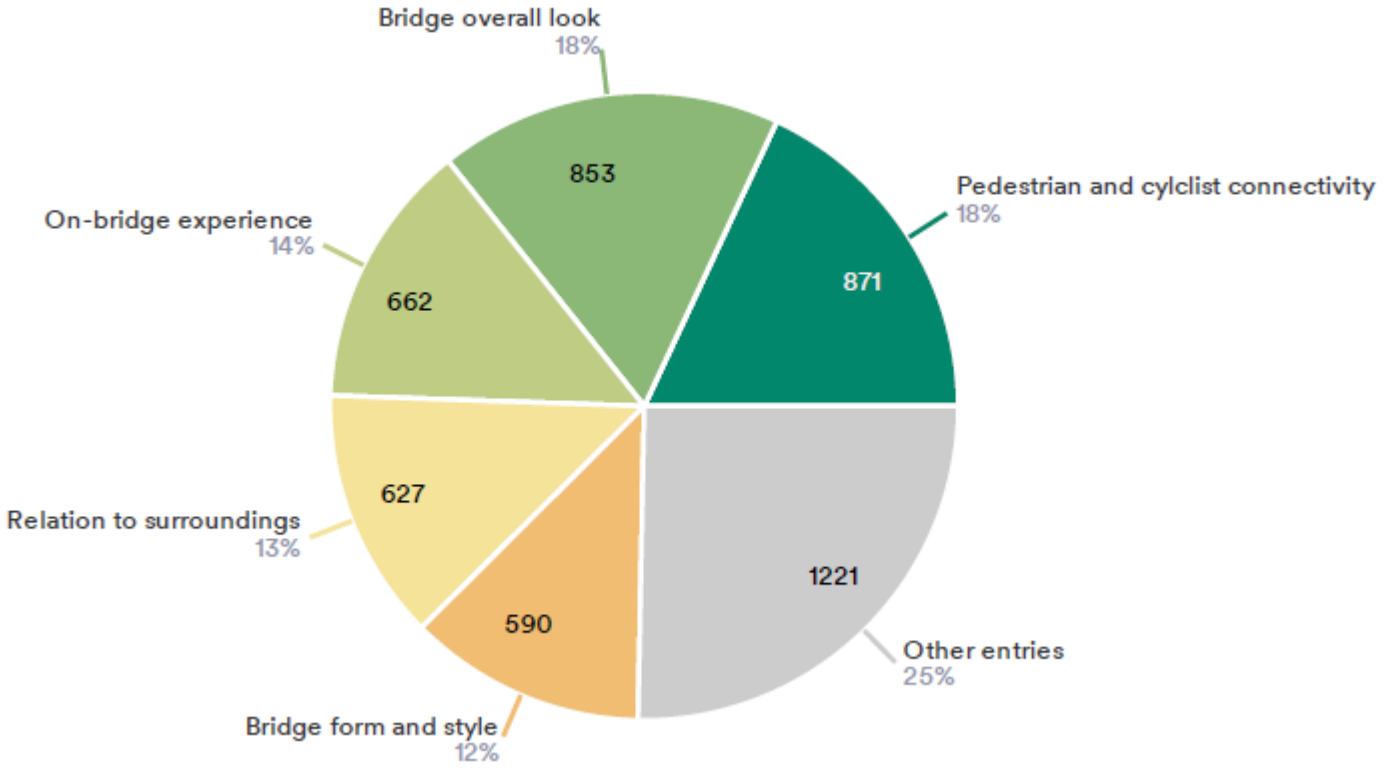
- Cable Supported has more striking design
- Tied Arch would add more variety without overshadowing surroundings

5% Truss – fits in well with other bridges and a nod to historic designs

5% Unsure – whichever is fastest and cheapest

What we heard

Of the topics for evaluating the options, which is most important to you? (Select your top three.)



What we heard

Do the topics for evaluating the bridge type options make sense?

96% - Yes

What we heard

What other topics should we consider when studying the tradeoffs among the options?

Key Themes:

- Seismic resiliency
- Aesthetically pleasing and forward-thinking design
- Prioritizing active transportation and transit
- Making the bridge flexible to changing needs (i.e., wider bike lanes or more transit-only lanes in the future)
- Cost of construction and long-term maintenance
- Environmental sustainability and reducing the carbon cost of the physical bridge structure

Discussion

Are there any bridge types you'd like to remove from further consideration?

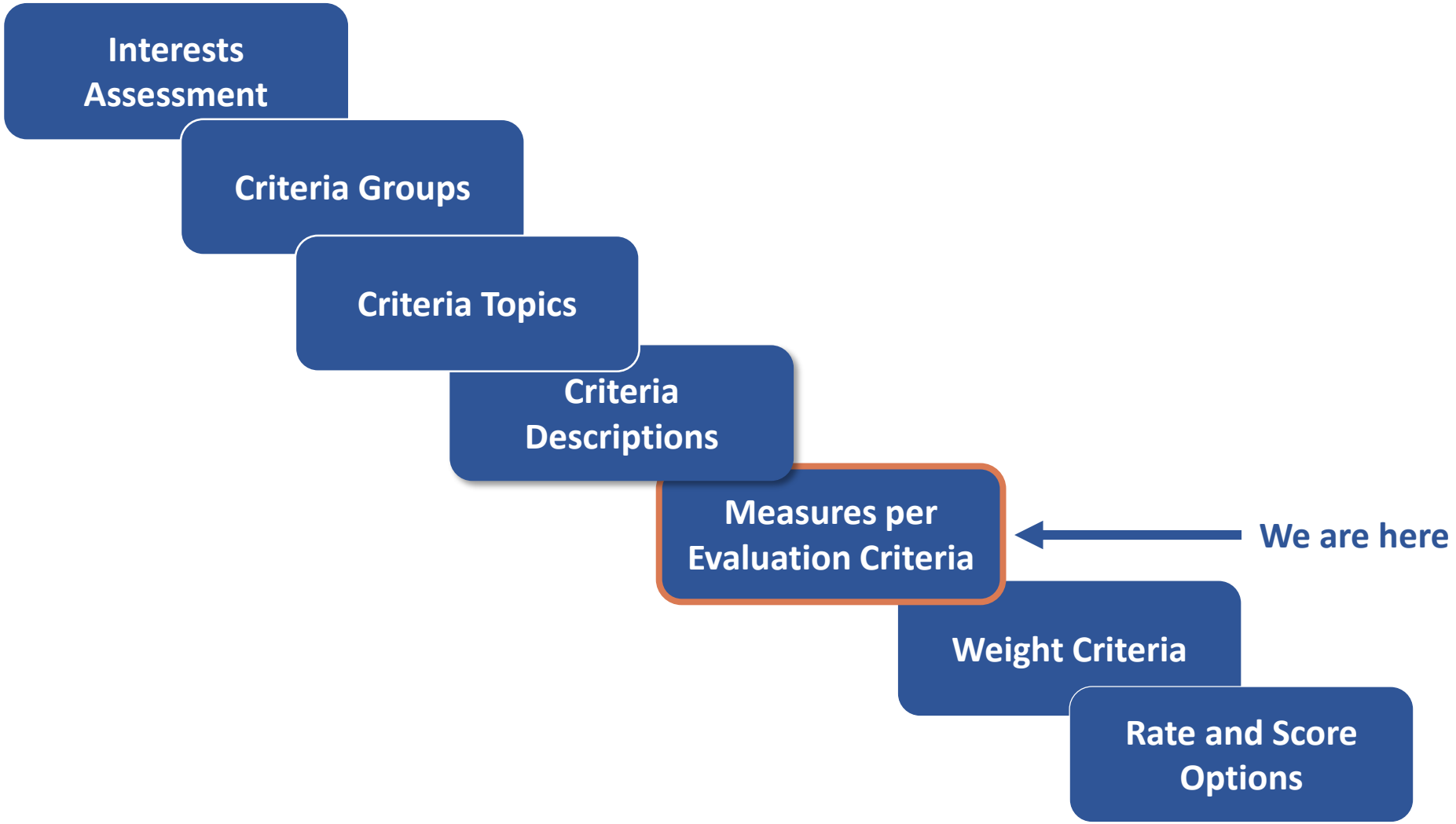
Bridge Type Selection

Criteria Development

Criteria Development

EARTHQUAKE READY BURNSIDE BRIDGE

Evaluation Process - *Steps in Getting to a Recommended Bridge Type*



Criteria Development

EARTHQUAKE READY BURNSIDE BRIDGE

Refined Criteria Topics for Review

Human Experience & Bridge Surroundings	On-bridge Experience
	Below-bridge Experience
	Relation to Surroundings
Overall Look & Feel of the Bridge	Bridge Overall Look
	Bridge Form and Style
	Flexible Design
Cost & Construction Impacts to Users	Total Project Cost
	Long Term Costs
	Construction Impacts

Criteria Development

Measures Review

EARTHQUAKE READY BURNSIDE BRIDGE
BETTER – SAFER – CONNECTED

Multnomah County is creating an earthquake-ready downtown river crossing.

February 21, 2021

Final Type Selection Evaluation Criteria

Introduction

In December 2020, the Earthquake Ready Burnside Bridge (EQRB) Community Task Force (CTF) recommended draft evaluation criteria topics, based on information available at the time, to recommend a bridge type to advance into Final Design phase. The project team has since gathered input on the CTF's draft criteria and measures from other agency staff and the Urban Design and Aesthetics Working Group (UDAWG). The purpose of this document is to consolidate the input into a cohesive set of criteria and measures to support the selection process.

Community Values: During the CTF's development of the Bridge Type Selection criteria, some guiding principles emerged that express the intended outcome of the process. These provide an overarching context from which the criteria and measures were derived. They include:

- The bridge type should be a physical manifestation of Portland's values and aspirations for inclusiveness, resiliency, accessibility, creativity, vitality, and sustainability.
- The bridge type should acknowledge its unique location at the center of the City quadrants; the heart of the City.
- The bridge should further promote Portland's moniker as a "City of Bridges."

Regulatory Requirements: While some of the evaluation criteria are intended to measure the extent to which options would implement certain regulatory objectives, the evaluation criteria are not intended to replace or supersede any relevant regulatory requirements. Any selected option needs to comply with relevant regulatory requirements applicable to the topic.

Criteria Groups, Topics, and Measures

The criteria within this document will be used to support a bridge type recommendation for the Replacement Long Span alternative. It is comprised of the following three Criteria Groups, with applicable topics and measures that correlate to the key interests identified by the CTF:

1. Human Experience and Bridge Surroundings
2. Overall Look and Feel of the Bridge
3. Cost and Construction Impacts to Users

...pics (designated as 1a, 1b, 1c, 2a, etc) describe the key interest being addressed, and the ...ignated as 1a.1, 1a.2, 1b.1, etc) further define how each topic will be evaluated.

...ion Evaluation Criteria | February 21, 2021 | Page 1

Do you approve these criteria moving forward?

Open Discussion

Next Steps

Upcoming CTF Meetings

- **March 22 –** Project update, weight evaluation criteria *(tentative)*
- **July –** Review updated cost information and evaluation screening results and work towards a bridge type recommendation
- **August –** Make bridge type recommendation for community review
- **September –** Community outreach on recommended bridge type
- **October –** Review community feedback and make final recommendation on bridge type

Closing Remarks

EARTHQUAKE READY BURNSIDE BRIDGE

Thank you!