EARTHQUAKE READY BURNSIDE BRIDGE

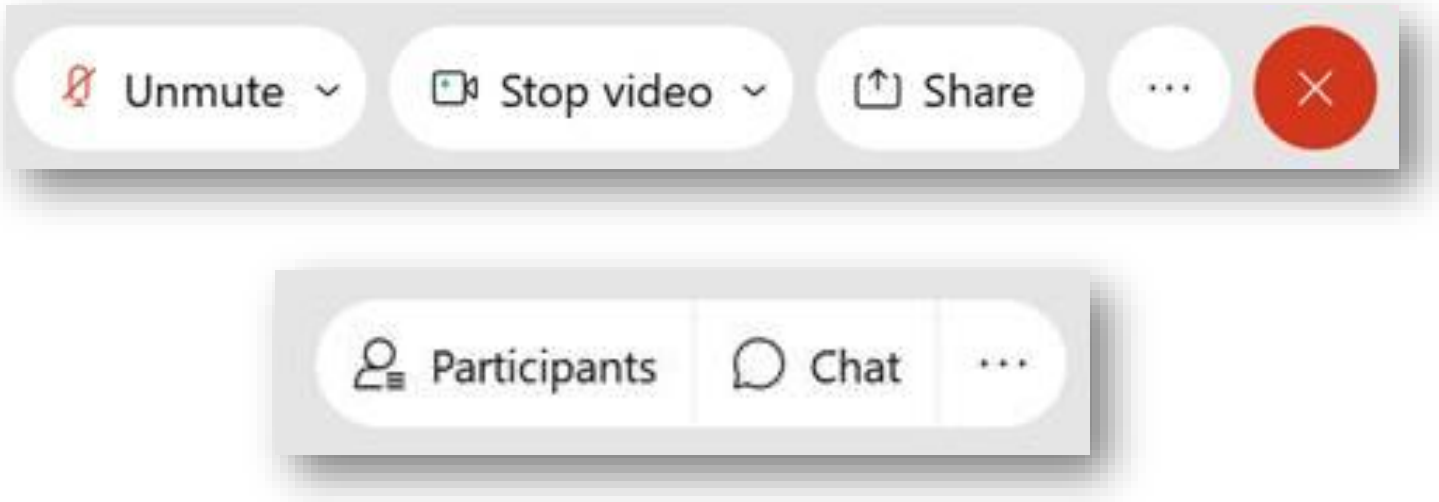
Senior Agency Staff Group Meeting

Members join meeting via WebEx link in calendar invite

Department of Community Services
Transportation Division
January 7, 2020

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
2. Project Update
3. Draft Environmental Impact Statement
4. Range of Bridge Types
5. Evaluation Criteria Development
6. Public Outreach
7. Next Steps

Introductions and Roll Call

EARTHQUAKE READY BURNSIDE BRIDGE

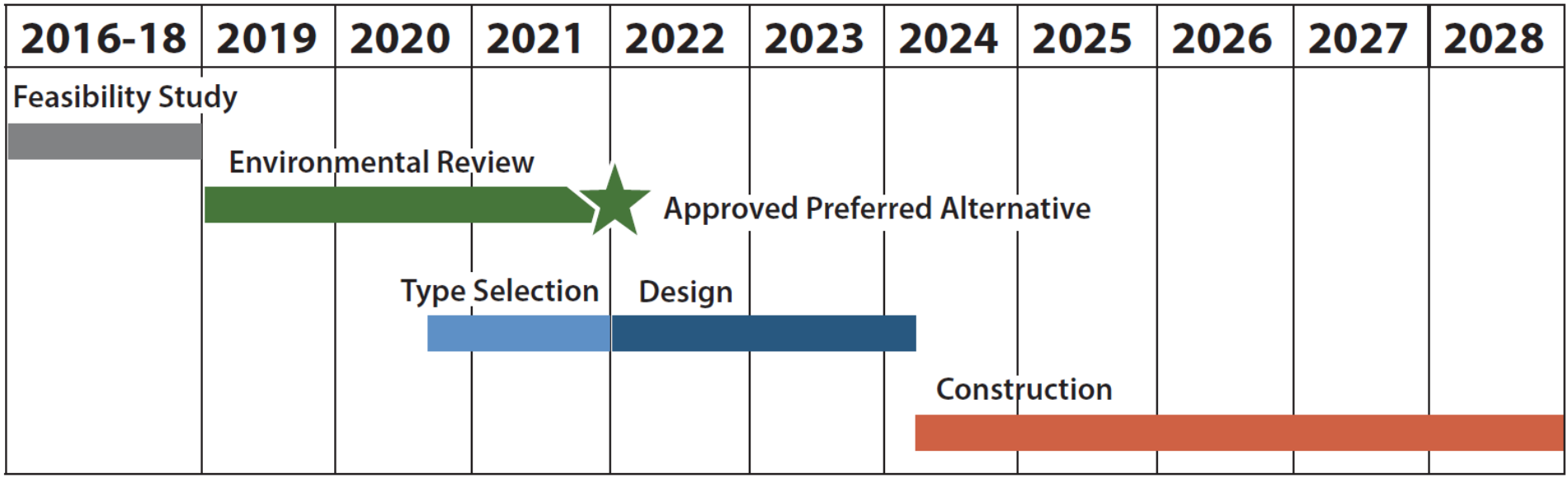
Senior Agency Staff Group and Project Management Team

- **Mark Lear,** Portland Bureau of Transportation
- **Brian Monberg,** City of Gresham
- **Chris Deffebach,** Washington County
- **Malu Wilkinson,** Metro
- **Mike Bezner,** Clackamas County
- **Steve Witter,** TriMet
- **Mike Morrow,** FHWA
- **Sam Hunaidi,** ODOT
- **Katie Morrison,** Sen. Kathleen Taylor's Office
- **Dan Bower,** Portland Streetcar
- **Greg Theisen,** Port of Portland
- **Lucy Williams,** Rep. Smith Warner's Office
- **Jean Senechal Biggs,** City of Beaverton
- **Brett Horner,** Portland Parks and Recreation
- **Liz Smith Currie,** MultCo
- **Chris Fick,** MultCo
- **Jessica Berry,** MultCo
- **JD Deschamps,** MultCo
- **Jeston Black,** MultCo
- **Jon Henrichsen,** MultCo
- **Emily Miletich,** MultCo
- **Jamie Waltz,** MultCo
- **Brendon Haggerty,** MultCo
- **Patrick Sweeney,** PBOT
- **Teresa Boyle,** PBOT
- **Emily Cline,** FHWA
- **Shaneka Owens,** FHWA
- **Alex Oreschak,** Oregon Metro
- **Tate White**, Portland Parks and Recreation

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Project Timeline



Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Project Timeline

Environmental Review

1. Jan 2021: Publish Draft EIS and begin 45-day comment period
2. Fall 2021: Final EIS and Record of Decision

Bridge Type Selection

1. Jan/Feb 2021: Community input on range of Bridge Type options and evaluation criteria
2. June 2021: Bridge Type approval

Project Update

EARTHQUAKE READY BURNSIDE BRIDGE

Working Groups

Urban Design & Aesthetics	• Aesthetic / Urban Design insights per bridge type • Recommendation on type selection evaluation criteria	Jan 2021
Bridge & Seismic	• Technical bridge design differentiators • Seismic performance findings	Early 2021
Constructability	• Construction methods and durations • Range of potential impacts	Jan 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	Jan 2021
Historic/Cultural Resources	• Impacts to historic and cultural resources	Jan 2021

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

Project Update

Policy Group

- New members
  - Metro
  - City of Gresham
  - City of Beaverton
- March meeting
- Offering briefings

Draft Environmental Impact Statement

Draft Environmental Impact Statement

EARTHQUAKE READY BURNSIDE BRIDGE

Getting ready to publish the DEIS: January 15 – March 1, 2021

Technical Reports

- Acquisitions and Relocations
- Air Quality
- Climate Change*
- Economics
- Environmental Justice
- Equity*
- Floodplain and River Hydraulics
- Geology
- Hazardous Materials
- Health Impact Assessment*
- Historic and Archaeological Resources
- Land Use
- Noise and Vibration
- Parks and Recreation
- Public Services
- Right of Way
- River Navigation
- Social and Neighborhood Resources
- Transportation
- Utilities
- Vegetation, Wildlife, and Aquatic Resources
- Visual and Aesthetic Resources
- Water Quality
- Wetlands and Waters

**Additional technical reports developed, not part of FHWA requirement*

DEIS – Bike/Ped/ADA Connections

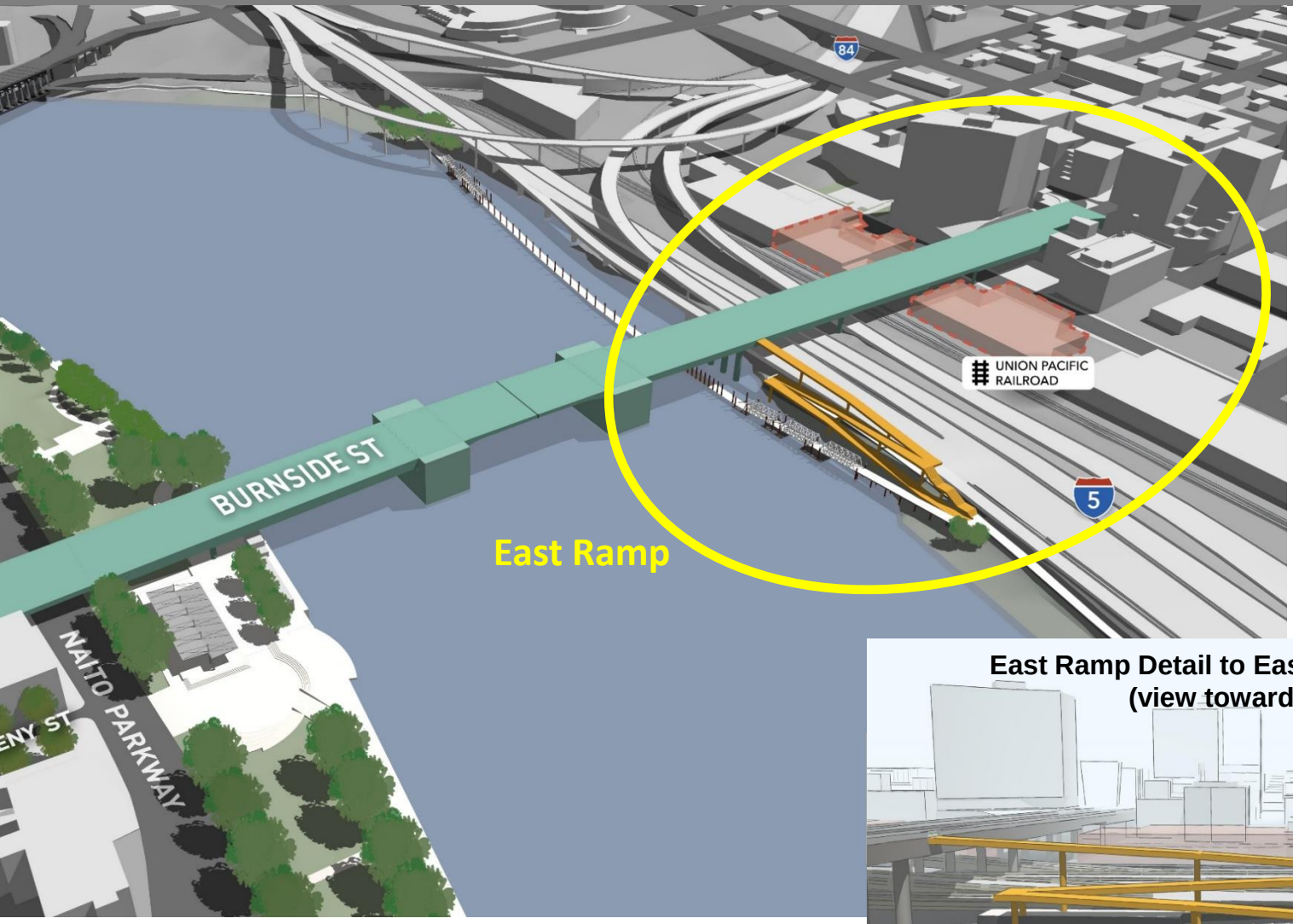
EARTHQUAKE READY BURNSIDE BRIDGE

Initial Assumptions

DEIS – Bike/Ped/ADA Connections

EARTHQUAKE READY BURNSIDE BRIDGE

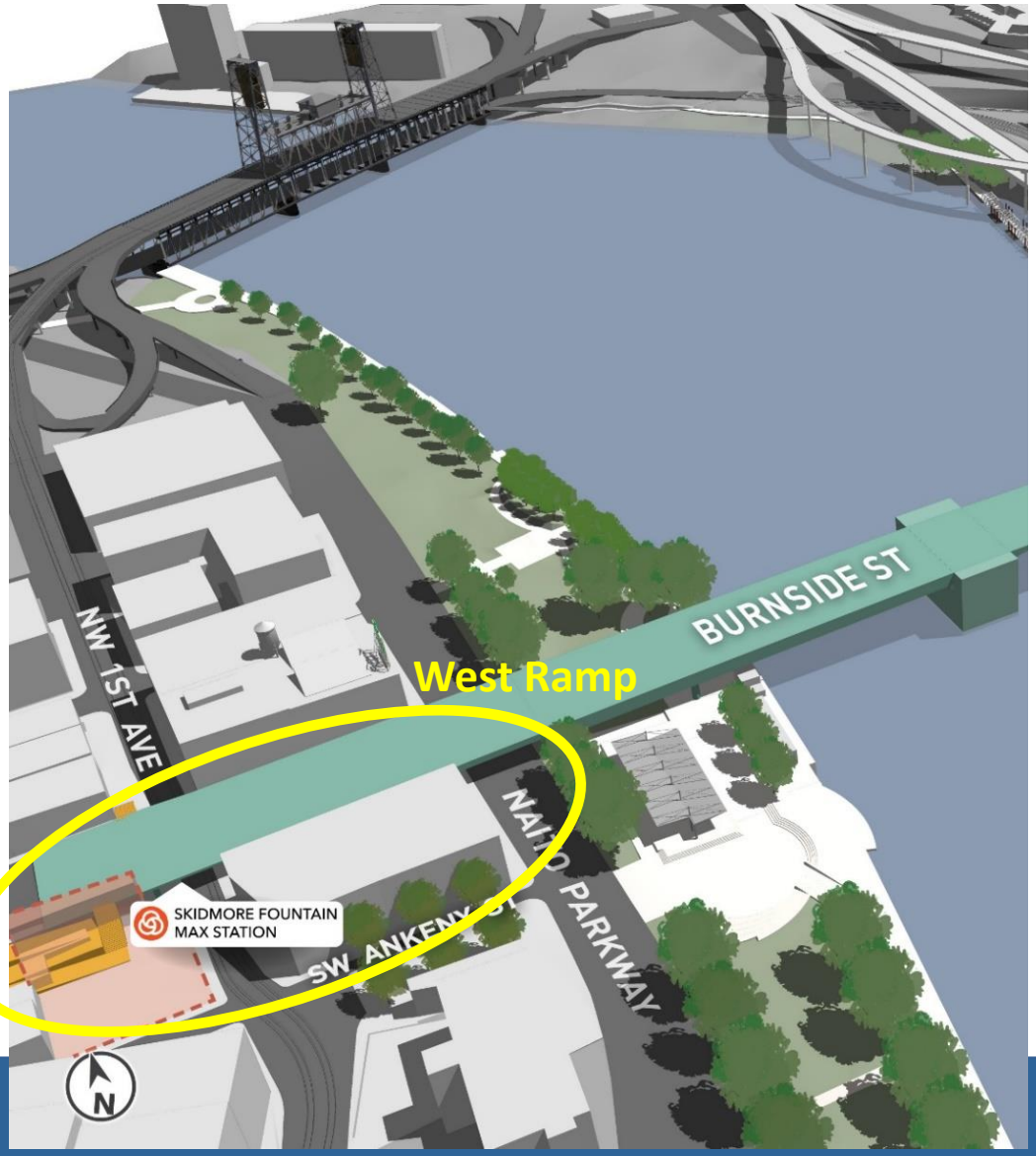
Eastside Connection – Initial Assumption



East Ramp Detail to Eastbank Esplanade (view towards east)

DEIS – Bike/Ped/ADA Connections

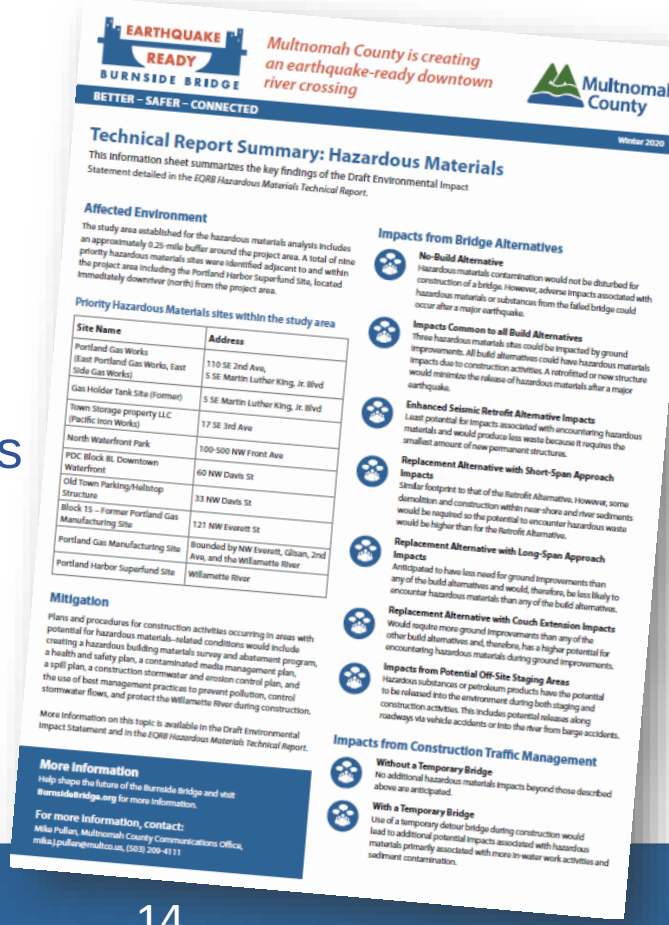
Westside Connections – Initial Assumption



Draft Environmental Impact Statement

Getting ready to publish the DEIS: January 15 – March 1

- 45-day public comment period
- In-person hearing by-appointment and voicemail
- Notification to participating and cooperating agencies
- Limited to 150 pages of text for DEIS
- Executive summary
- One-page summaries for each technical report
- Mitigation coordination
- Permitting and approval coordination
- Long Span Preferred Alternative approval process
  - Metro / Regional Transportation Plan
  - City of Portland
  - Multnomah County
  - Federal Highway Administration



EARTHQUAKE READY BURNSIDE BRIDGE

Multnomah County is creating an earthquake-ready downtown river crossing

Multnomah County

BETTER – SAFER – CONNECTED

Winter 2020

Technical Report Summary: Hazardous Materials

This information sheet summarizes the key findings of the Draft Environmental Impact Statement detailed in the *EQRB Hazardous Materials Technical Report*.

Affected Environment

The study area established for the hazardous materials analysis includes an approximately 0.25-mile buffer around the project area. A total of nine priority hazardous materials sites were identified adjacent to and within the project area including the Portland Harbor Superfund Site, located immediately downriver (north) from the project area.

Priority Hazardous Materials sites within the study area

Site Name	Address
Portland Gas Works (East Portland Gas Works, East Side Gas Works)	110 SE 2nd Ave, 5 SE Martin Luther King, Jr. Blvd
Gas Holder Tank Site (Former)	5 SE Martin Luther King, Jr. Blvd
Town Storage property LLC (Pacific Iron Works)	17 SE 3rd Ave
North Waterfront Park	100-500 NW Front Ave
PDC Block 8L Downtown Waterfront	60 NW Davis St
Old Town Parking/Hallstop Structure	33 NW Davis St
Block 15 – Former Portland Gas Manufacturing Site	121 NW Everett St
Portland Gas Manufacturing Site	Bounded by NW Everett, Glisan, 2nd Ave, and the Willamette River
Portland Harbor Superfund Site	Willamette River

Mitigation

Plans and procedures for construction activities occurring in areas with potential for hazardous materials–related conditions would include creating a hazardous building materials survey and abatement program, a health and safety plan, a contaminated media management plan, a spill plan, a construction stormwater and erosion control plan, and the use of best management practices to prevent pollution, control stormwater flows, and protect the Willamette River during construction.

More information on this topic is available in the Draft Environmental Impact Statement and in the *EQRB Hazardous Materials Technical Report*.

More information

Help shape the future of the Burnside Bridge and visit BurnsideBridge.org for more information.

For more information, contact:

Mike Pullen, Multnomah County Communications Office, mike.j.pullen@multco.us, (503) 209-4171

Impacts from Bridge Alternatives

No-Build Alternative
Hazardous materials contamination would not be disturbed for construction of a bridge. However, adverse impacts associated with hazardous materials or substances from the failed bridge could occur after a major earthquake.

Impacts Common to all Build Alternatives
Three hazardous materials sites could be impacted by ground improvements. All build alternatives could have hazardous materials impacts due to construction activities. A retrofitted or new structure would minimize the release of hazardous materials after a major earthquake.

Enhanced Seismic Retrofit Alternative Impacts
Least potential for impacts associated with encountering hazardous materials and would produce less waste because it requires the smallest amount of new permanent structures.

Replacement Alternative with Short-Span Approach Impacts
Similar footprint to that of the Retrofit Alternative. However, some demolition and construction within near-shore and river sediments would be required so the potential to encounter hazardous waste would be higher than for the Retrofit Alternative.

Replacement Alternative with Long-Span Approach Impacts
Anticipated to have less need for ground improvements than any of the build alternatives and would, therefore, be less likely to encounter hazardous materials than any of the build alternatives.

Replacement Alternative with Couch Extension Impacts
Would require more ground improvements than any of the other build alternatives and, therefore, has a higher potential for encountering hazardous materials during ground improvements.

Impacts from Potential Off-Site Staging Areas
Hazardous substances or petroleum products have the potential to be released into the environment during both staging and construction activities. This includes potential releases along roadways via vehicle accidents or into the river from barge accidents.

Impacts from Construction Traffic Management

Without a Temporary Bridge
No additional hazardous materials impacts beyond those described above are anticipated.

With a Temporary Bridge
Use of a temporary detour bridge during construction would lead to additional potential impacts associated with hazardous materials primarily associated with more in-water work activities and sediment contamination.

Draft Environmental Impact Statement

Additional Outreach

- Online open house January 15 – March 1
- Newsletters, emails, news releases
- Social media
- Briefings
  - Metro JPACT
  - City Council
  - Multnomah County Board of Commissioners
  - ODOT
  - Portland Historic Landmarks
  - Portland Design Commission
  - Portland Parks Board
  - Portland Freight, Bike and Pedestrian Advisory Groups
  - Community, neighborhood and business organizations
  - Adjacent property owners

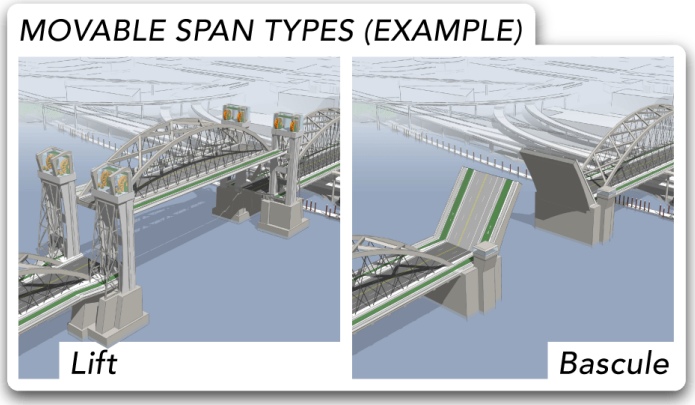
Bridge Type Selection

Range of Bridge Types

Recommended Preferred Alternative

EARTHQUAKE READY BURNSIDE BRIDGE

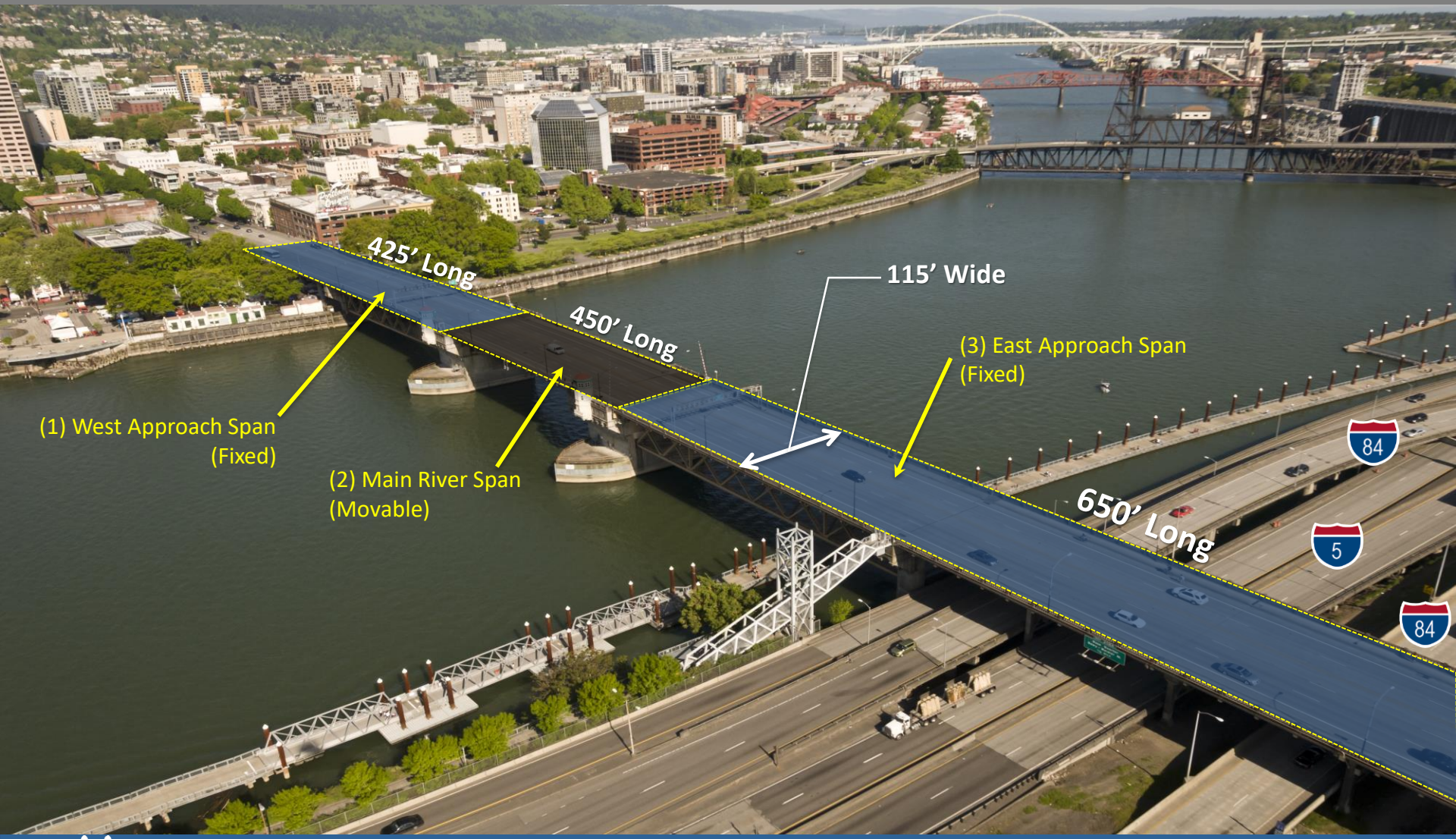
Replacement Long Span - come in different style types



Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Long-span Alternative: “Three bridges in one”



Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Long Span

Tied Arch

Truss

Cable Stayed / Extradosed

Girder (applicable to west approach only)

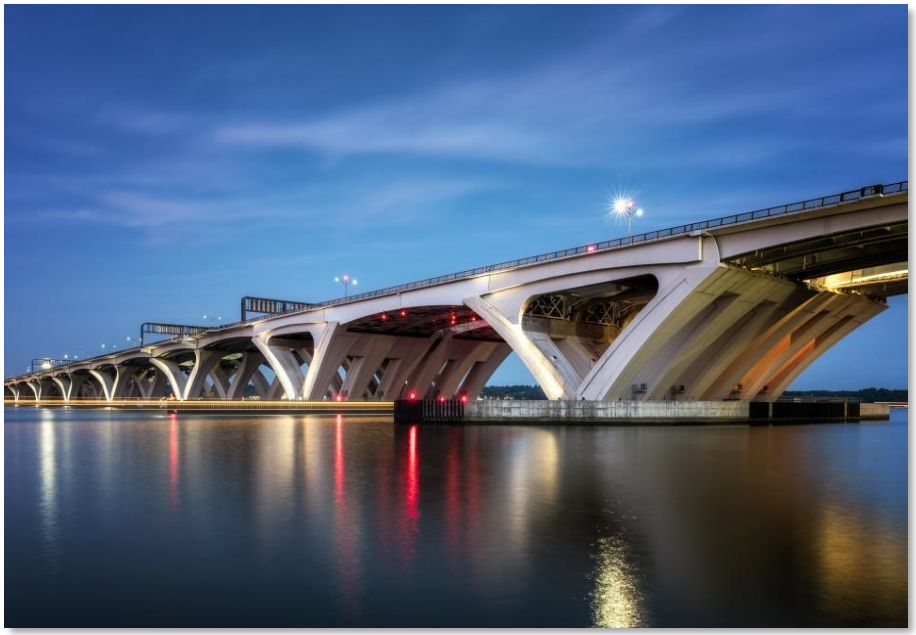
Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Movable Span

Lift

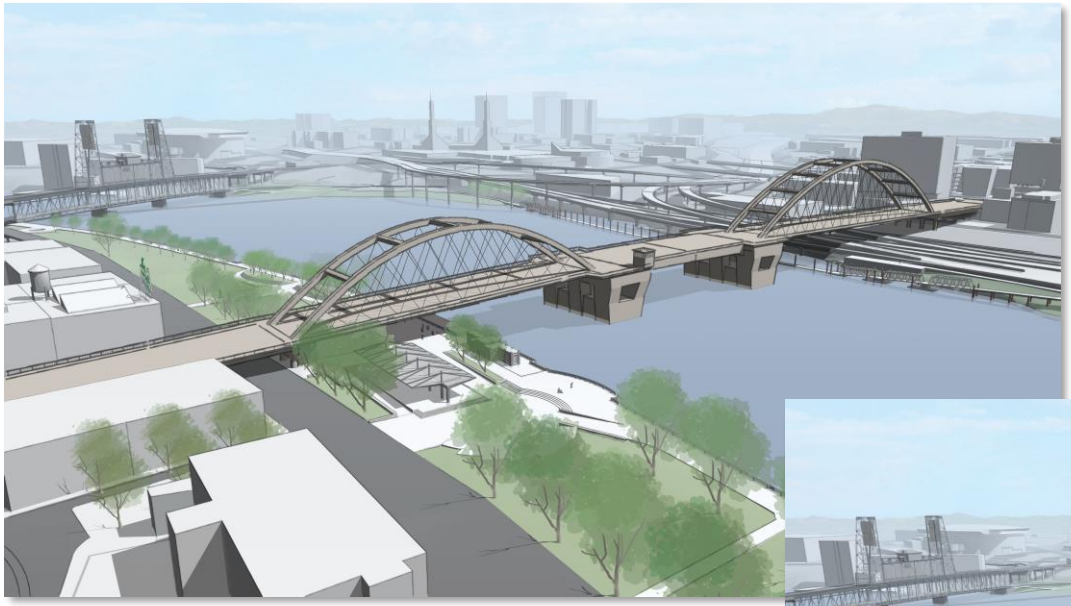
Bascule



Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Tied Arch



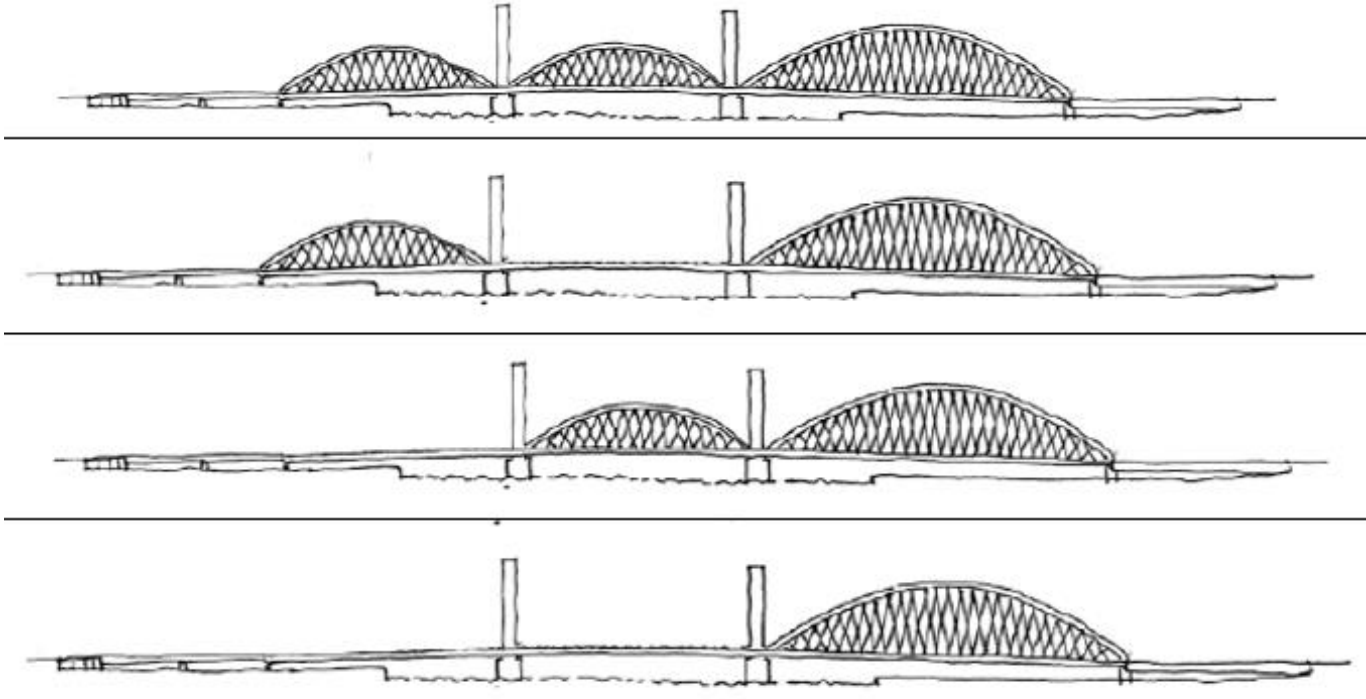
(Example concept images)

Range of Bridge Types

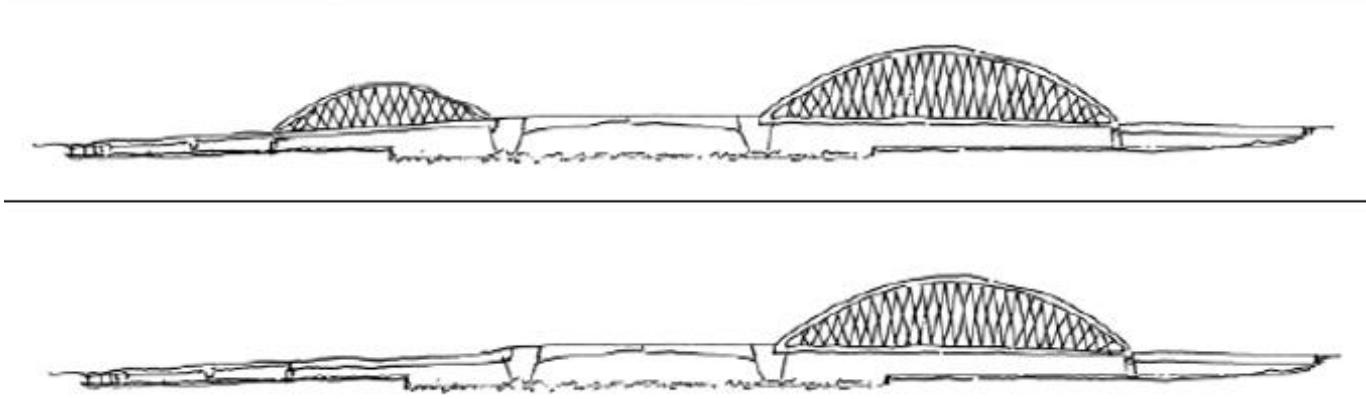
EARTHQUAKE READY BURNSIDE BRIDGE

Tied Arch Variations

Lift Options



Bascule Options



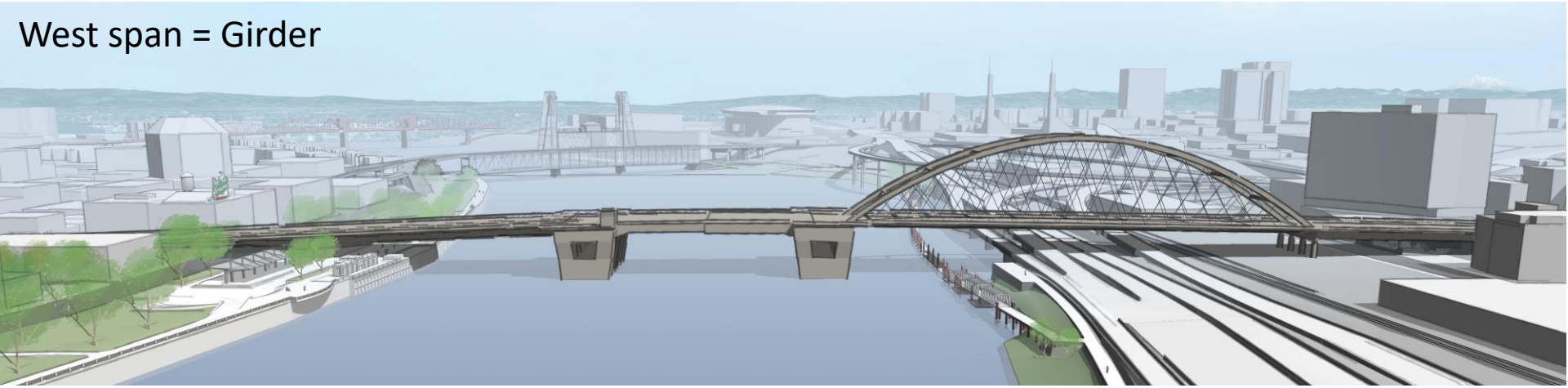
Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Tied Arch + Bascule Variations

West span = Tied Arch

West span = Girder



(Example concept images)

Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Tied Arch + Lift Variations

West span = Tied Arch

West span = Girder

(Example concept images)

Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Truss

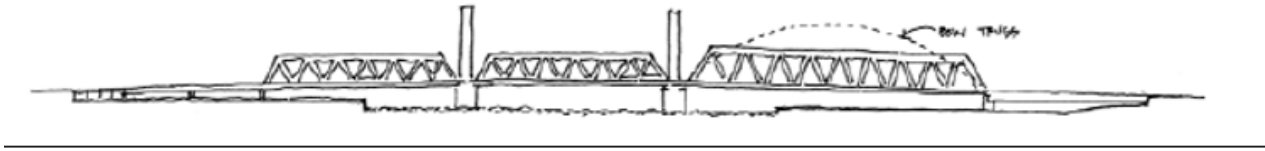
(Example concept images)

Range of Bridge Types

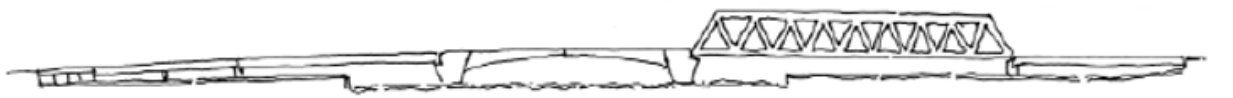
EARTHQUAKE READY BURNSIDE BRIDGE

Truss Variations

Lift Options



Bascule Options

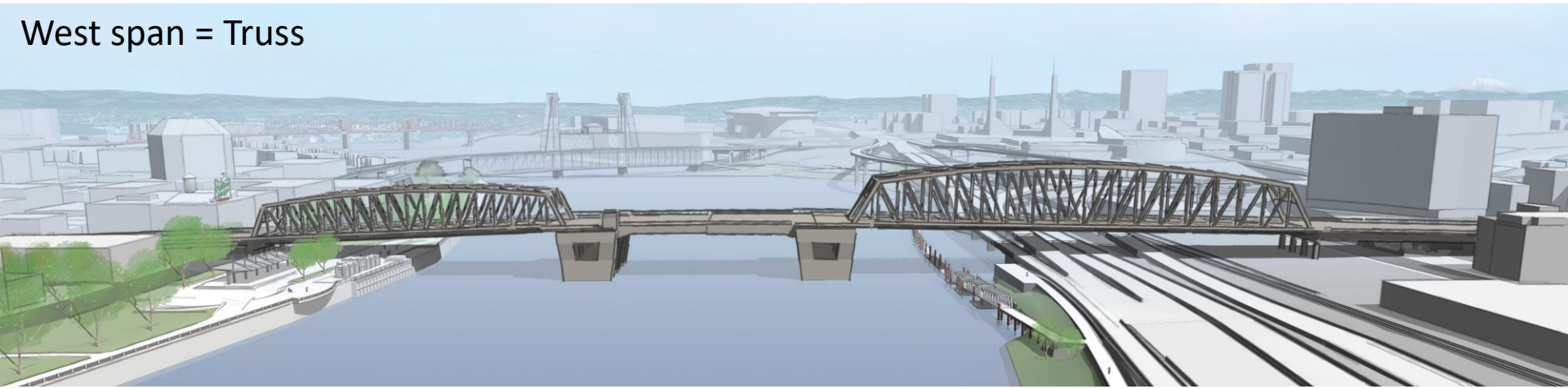


Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Truss + Bascule Variations

West span = Truss



West span = Girder

(Example concept images)

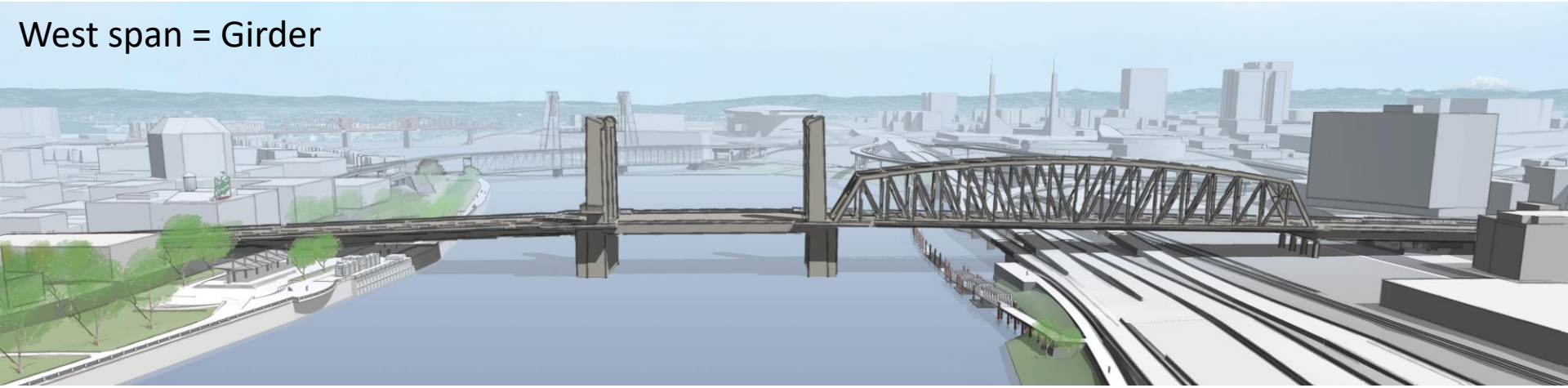
Range of Feasible Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Truss + Lift Variations

West span = Truss

West span = Girder

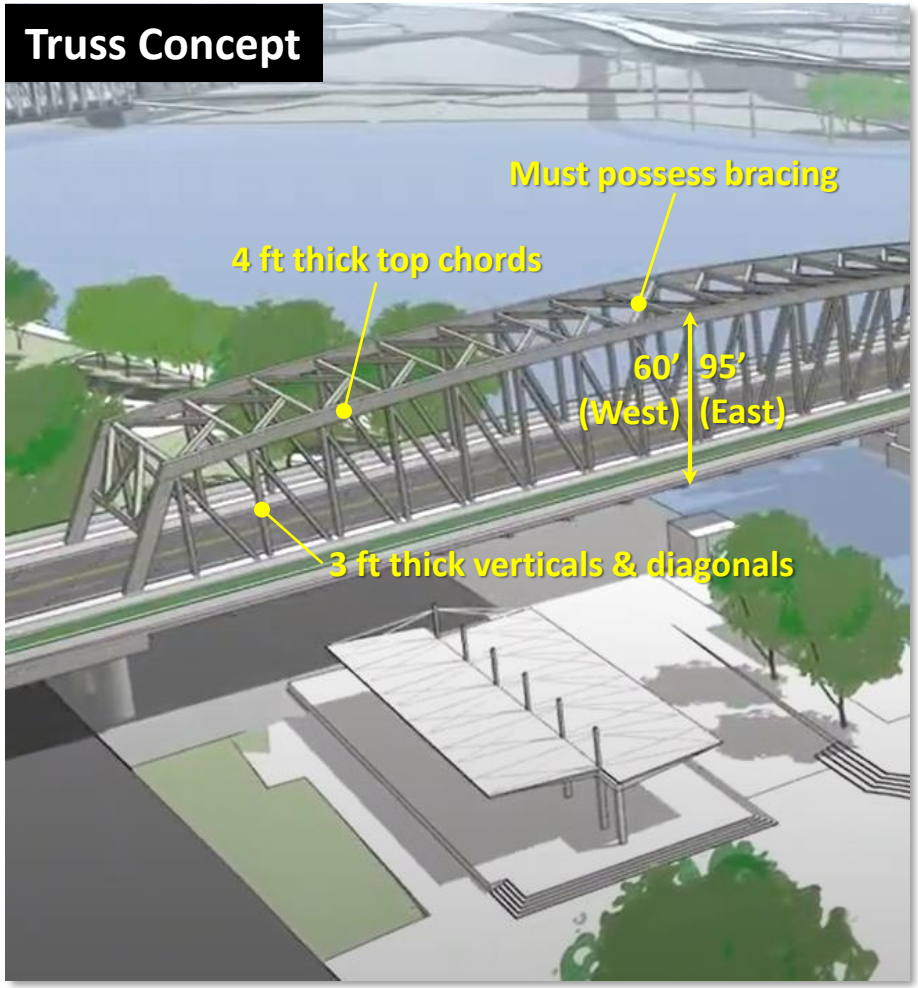


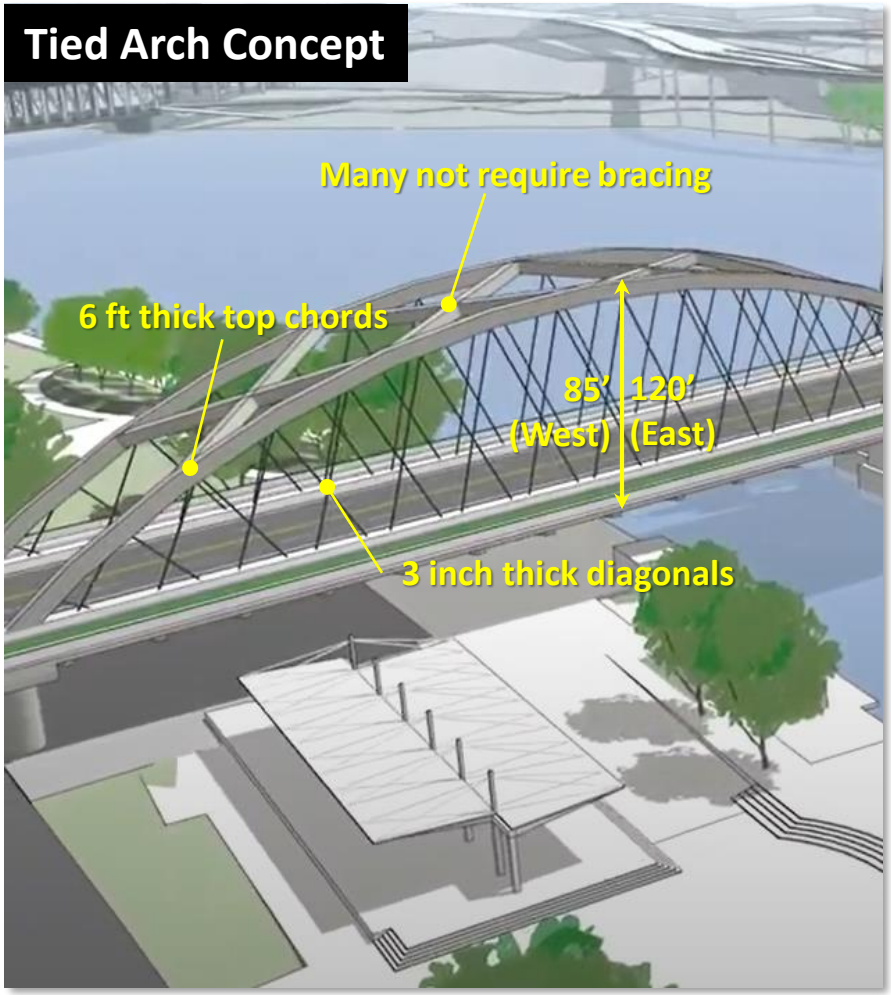
(Example concept images)

Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Truss comparison with Tied Arch





Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Cable Stayed / Extradosed

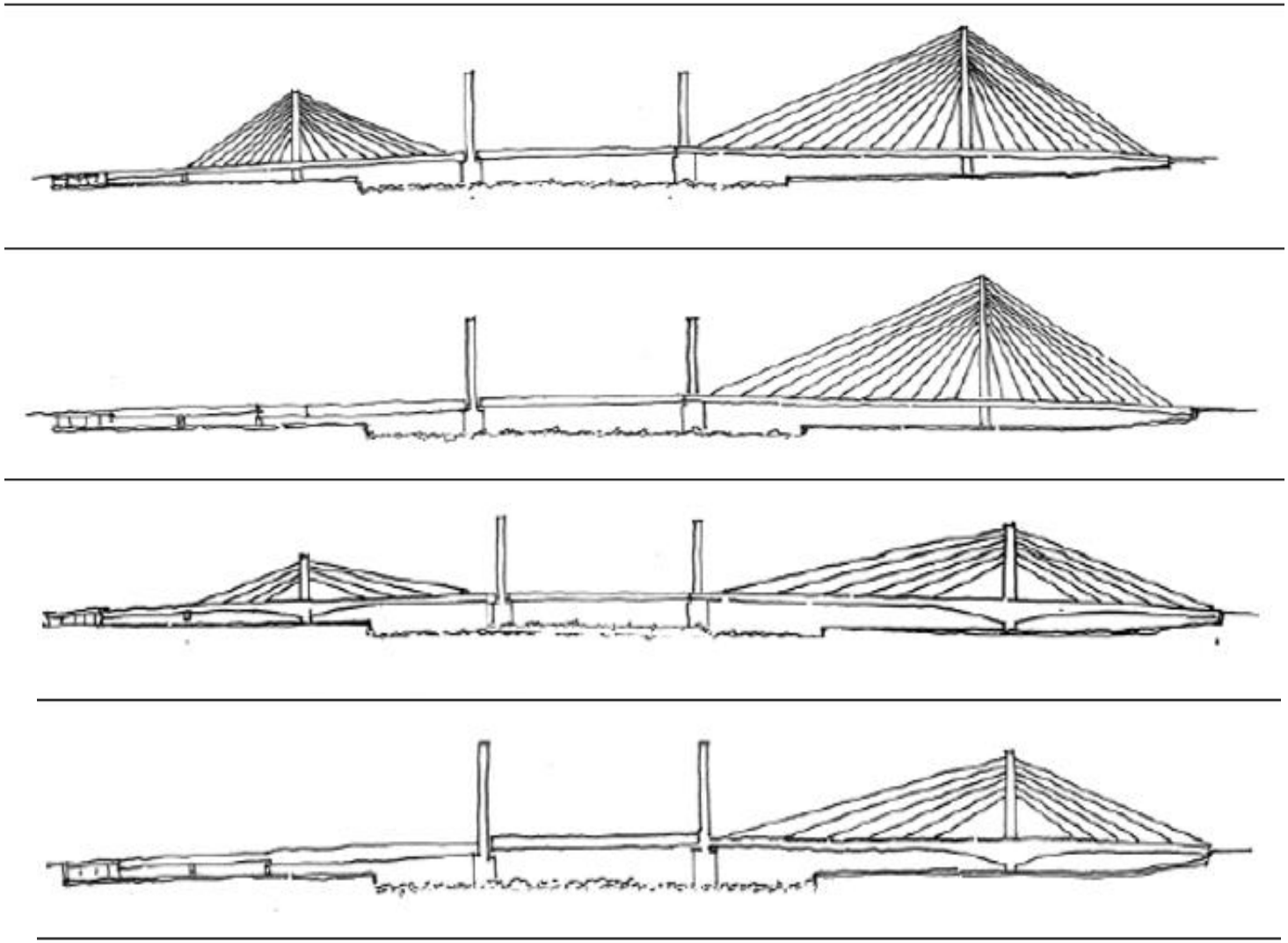
(Example concept images)

Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Cable Stayed / Extradosed + Lift Variations

Lift Options

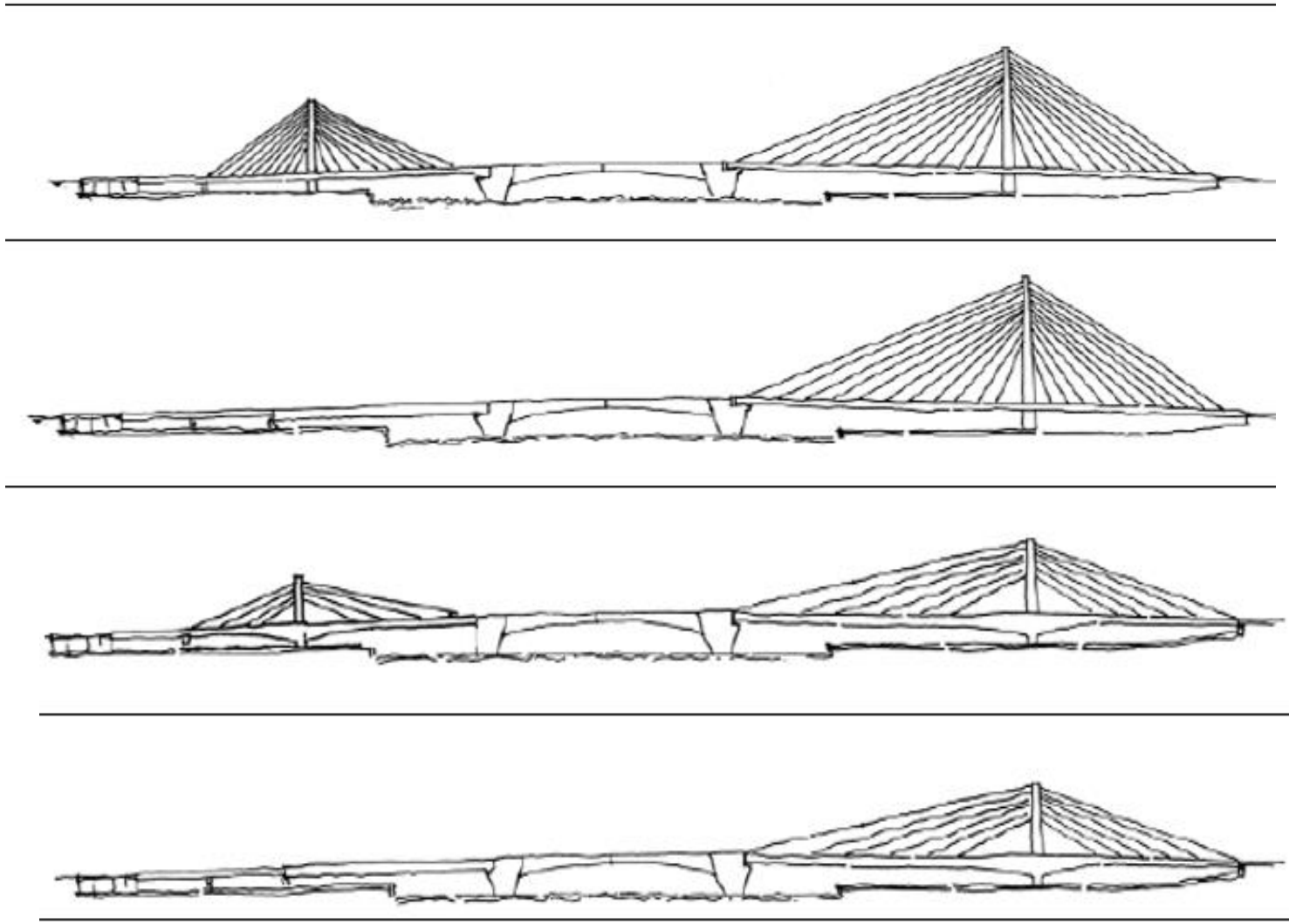


Range of Bridge Types

EARTHQUAKE READY BURNSIDE BRIDGE

Cable Stayed / Extradosed + Bascule Variations

Bascule Options

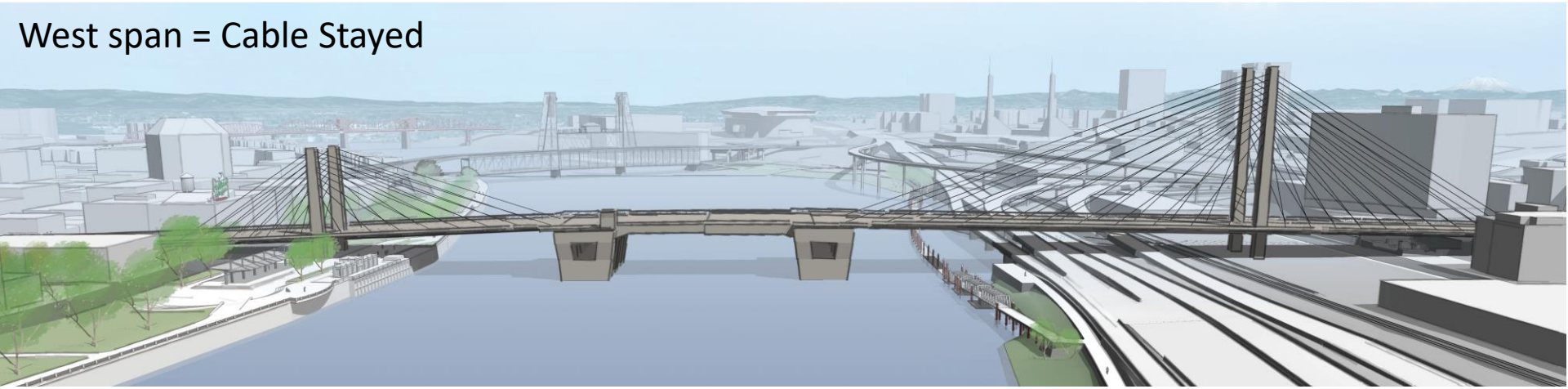


Range of Bridge Types

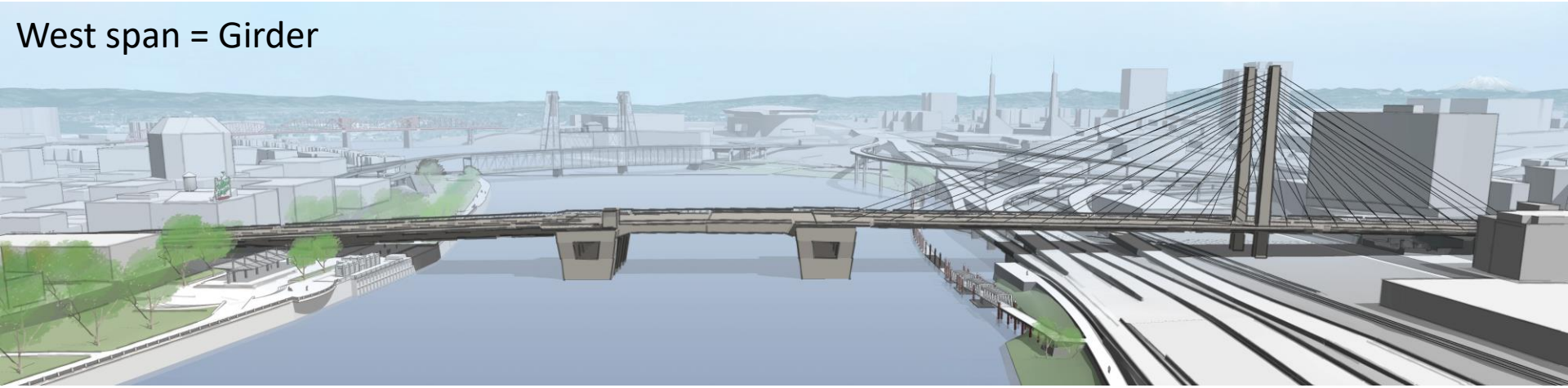
EARTHQUAKE READY BURNSIDE BRIDGE

Cable Stayed / Extradosed – Bascule Variations

West span = Cable Stayed



West span = Girder



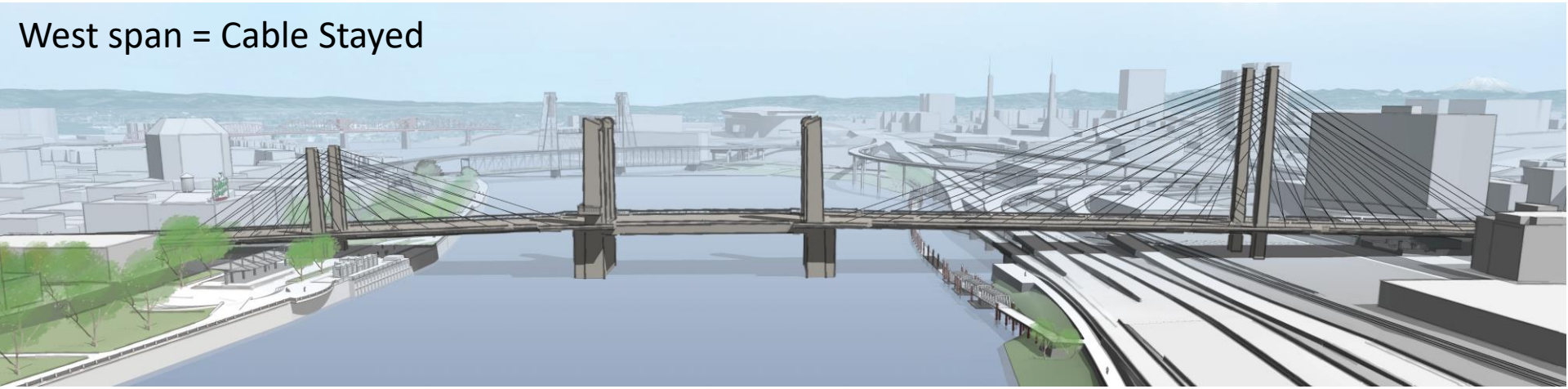
(Example concept images)

Range of Bridge Types

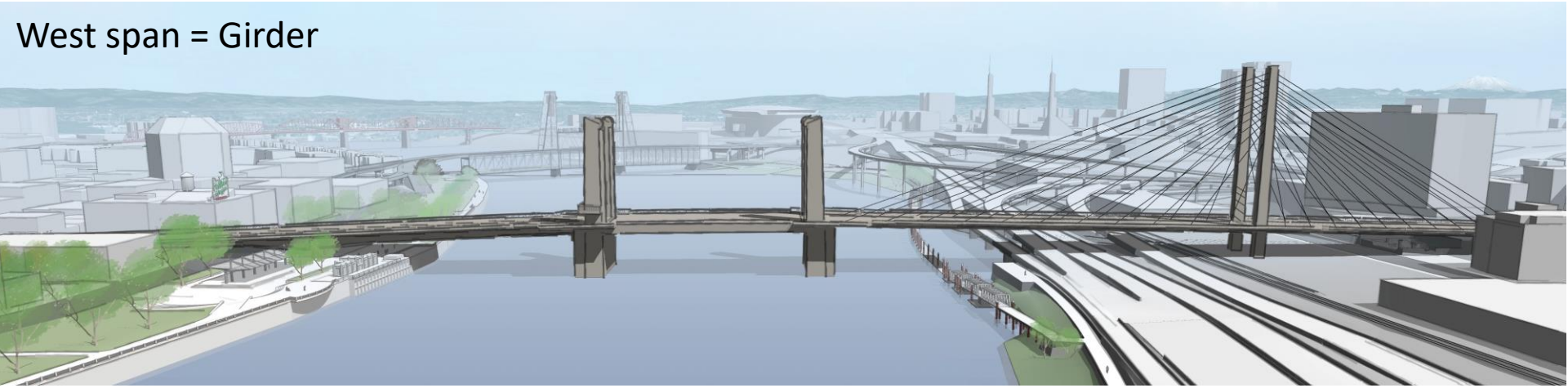
EARTHQUAKE READY BURNSIDE BRIDGE

"Balanced" Cable Stayed / Extradosed – Lift Variations

West span = Cable Stayed



West span = Girder

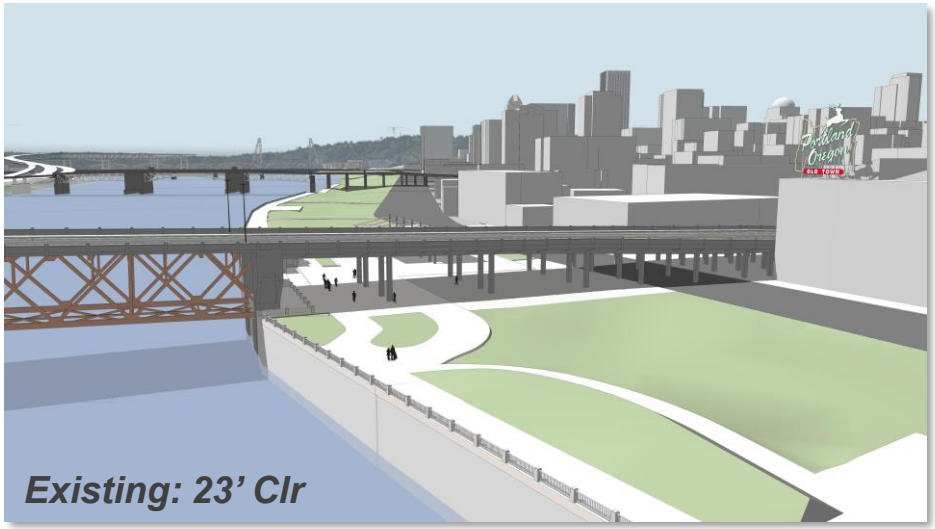


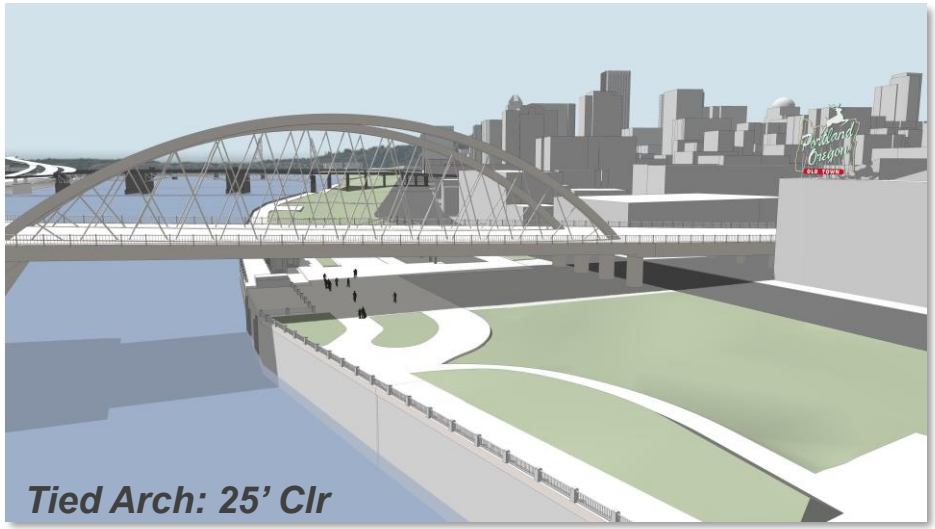
(Example concept images)

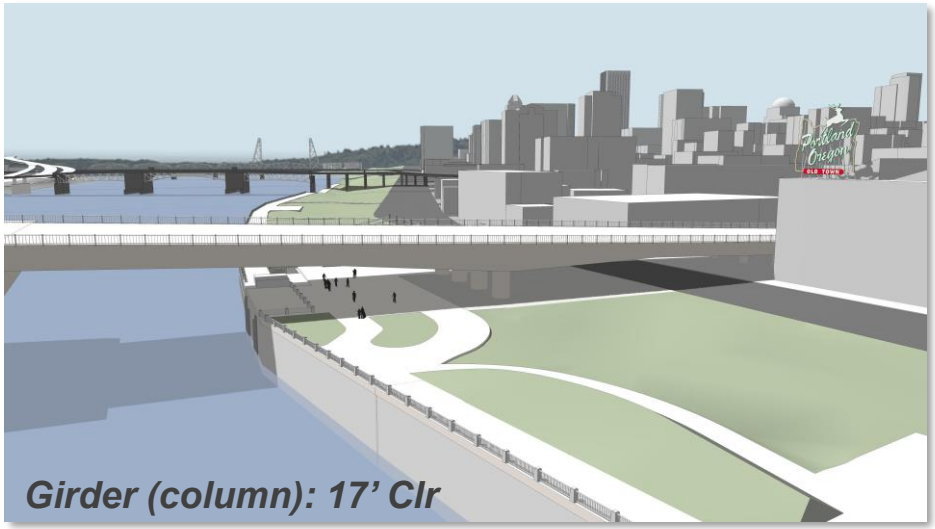
Range of Bridge Types

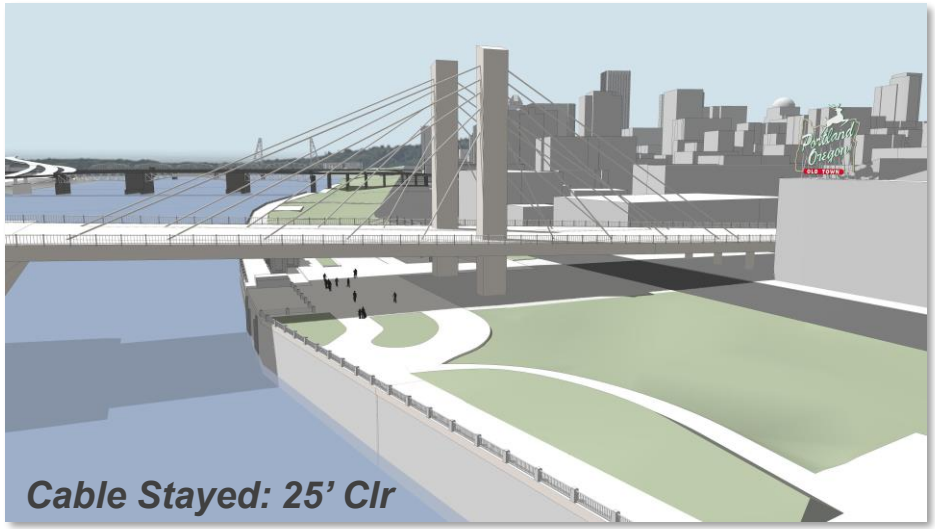
EARTHQUAKE READY BURNSIDE BRIDGE

Waterfront Park: Range of Options









(Example concept images)

Evaluation Criteria Development

EARTHQUAKE READY BURNSIDE BRIDGE

Criteria Topics

Human Experience & Bridge Surroundings	On-bridge Experience
	Below-bridge Experience
	Relation to Surroundings
	Pedestrian and Cyclist Connectivity
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

Criteria Topics and Definitions

1. Human Experience & Bridge Surroundings

A. **On-bridge Experience:** How well does the option provide benefits to people when they are on the bridge?

B. **Below-bridge Experience:** How well does the option provide benefits to people when they are under the bridge (in areas such as parks, roads, the river)?

C. **Relation to Surroundings:** How well does the option's scale and form complement and respond to the character of surrounding neighborhoods, buildings, parks and historic districts/structures while being distinctive?

D. **Pedestrian and Cyclist Connectivity**: How well does the option ensure safe and accessible connections on and off the bridge for people walking, biking or with disabilities?

(Note: likely common to all options; not expected to be differentiating.)

Criteria Development

Refined Criteria Topics and Definitions for Review

2. Overall Look & Feel of the Bridge

A. **Bridge Overall Look:** How well does the option's overall form create a look of balance, unity, and flow from key viewpoints above, under, and away from the bridge?

B. **Bridge Form and Style:** How well does the option acknowledge the historic and natural surroundings while presenting a seismically-resilient, modern design that sets the tone for future development throughout its 100-year design life?

C. **Flexible Design:** How well does the option allow flexibility for engineering and architectural features in final design, as well as adaptability of the bridge for future user needs?

Criteria Development

Refined Criteria Topics and Definitions for Review

3. Cost and Construction Impacts to Users

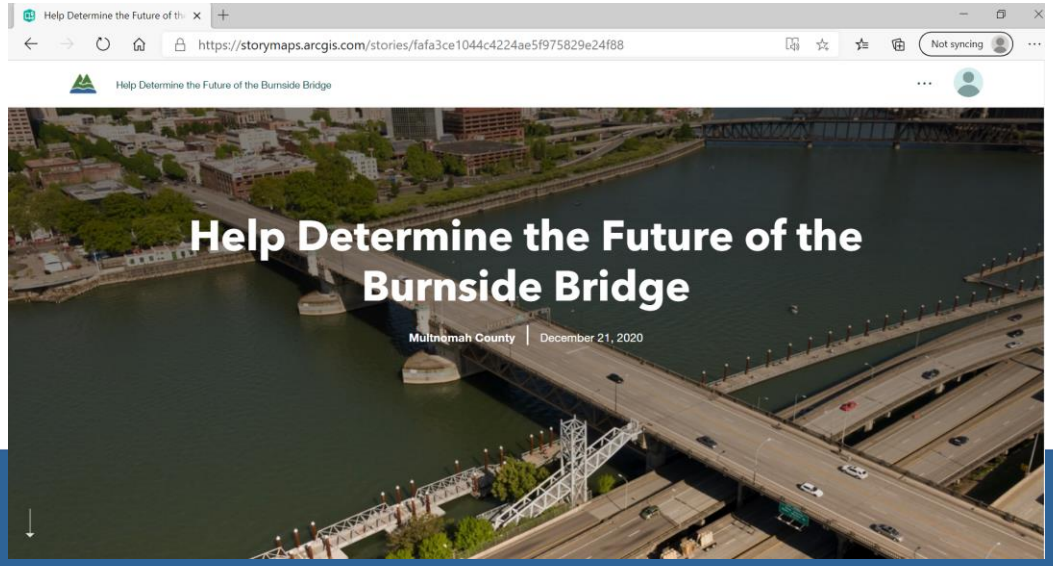
A. **Total Project Cost:** How well does the option minimize the Project's total cost?

B. **Long Term Costs:** How well does the option minimize long-term costs and support future needs after construction?

C. **Construction Impacts:** How well does the option minimize impacts to the traveling public and surrounding property owners and tenants during construction?

Community Outreach

- Virtual Briefings
- Online Open House and Survey
- Videos
- Webinar
- E-newsletters, news releases and social media
- Diverse outreach through the Community Engagement Liaisons program



Next Steps

Upcoming:

- **January/February 2021:** Community Outreach on Draft Environmental Impact Statement (DEIS), Range of Bridge Types and Criteria, and further input on bike/ped/ADA connections
- **March 2021:** Policy Group Approval of Bridge Type Options

Bridge Type Selection:

- **Spring/Summer 2021:** Arrive at decision on bike/ped/ADA connections
- **May 2021:** Community Outreach on Recommended Bridge Type
- **June 2021:** Policy Group and MultCo Board of County Commissioners Approval of Bridge Type

Environmental Review:

- **Spring/Summer 2021:** Review and address DEIS comments and update mitigation
- **Fall 2021:** Final Environmental Impact Statement and Record of Decision

Closing Remarks

EARTHQUAKE READY BURNSIDE BRIDGE

Thank you!