



**American Institute of
Architects**
Urban Design Panel

Department of Community Services
Transportation Division
January 19, 2021



Seismic Resiliency and Emergency Response



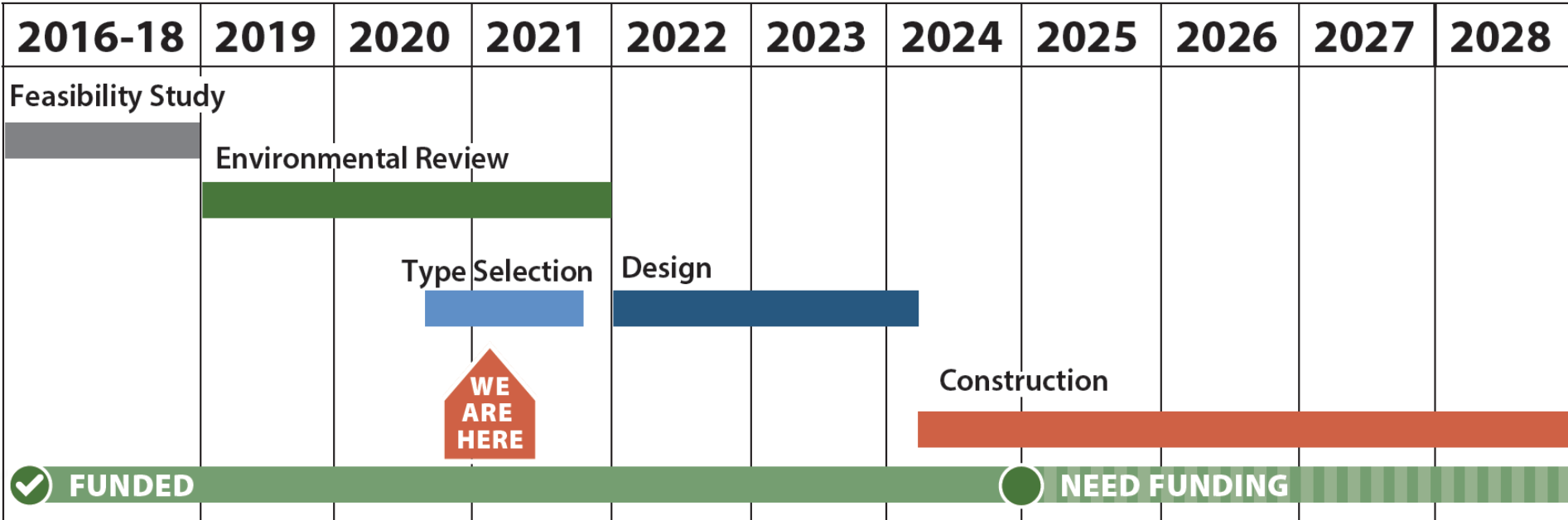
Regional Recovery and Rebuilding



Long-term Use



Project Timeline



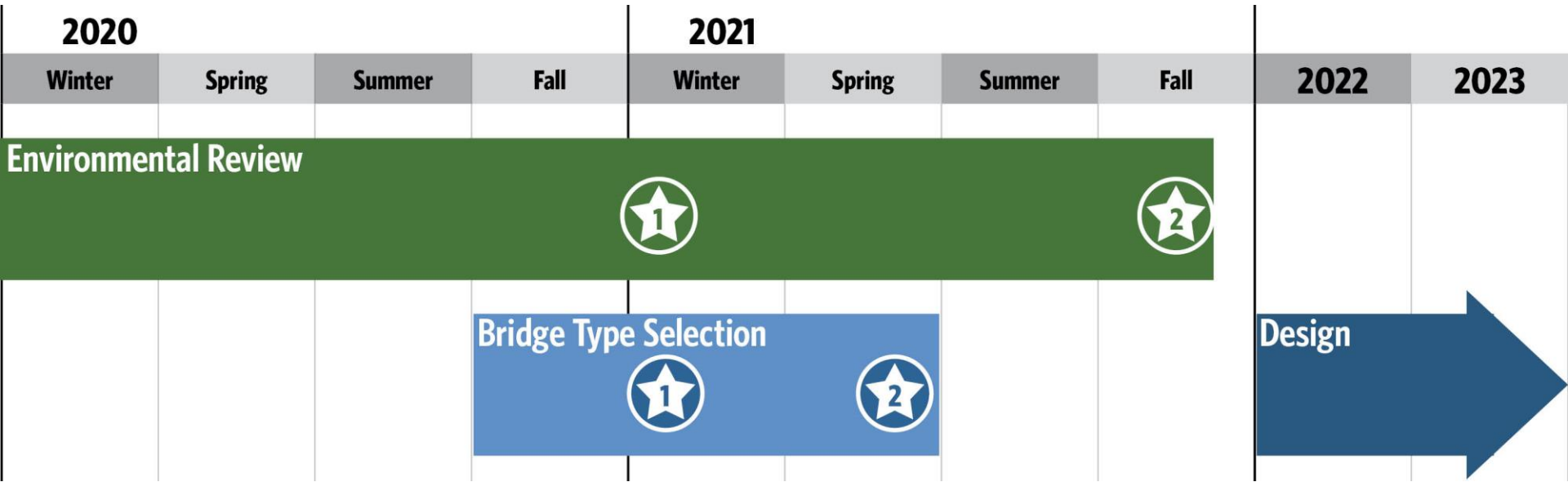
Project Timeline

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





Bridge Type Selection



Project Context

First Burnside Bridge – circa 1894



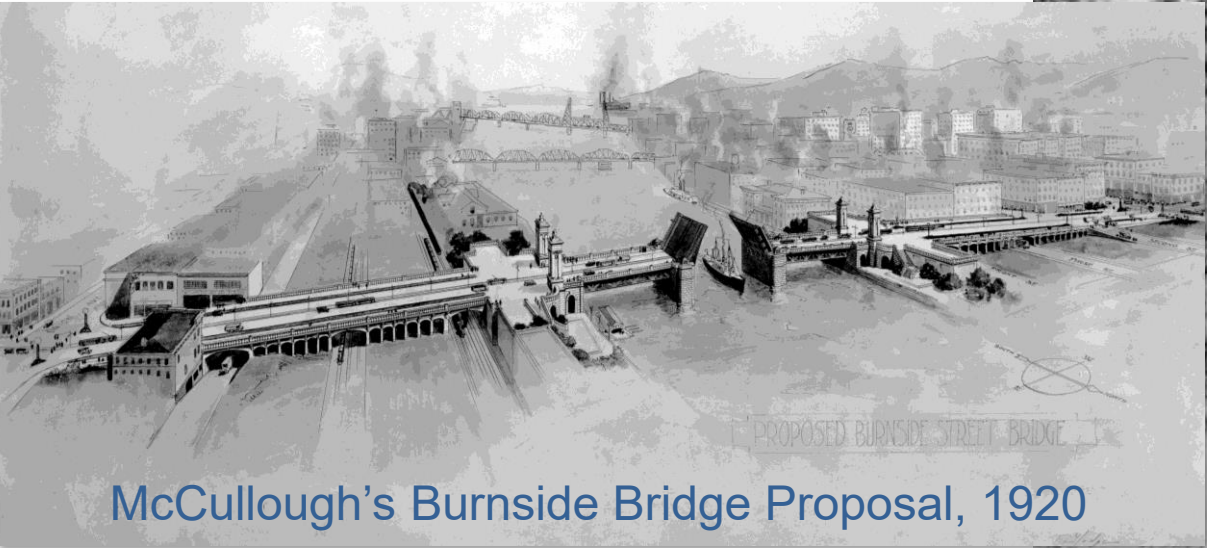
Project Context

Bridge Site Plan – Prior Visions

Edward Bennett's 1912 city plan called for a widened North Park Blocks, looking north from the intersection of Burnside Street.

Source: “How Portland almost became Paris on the Willamette: Ambitious 1912 plan envisioned Europe-inspired city with 2 million population” - Douglas Perry | The Oregonian/OregonLive Posted Jul 15, 2020

1912 Bridge Visioning



McCullough's Burnside Bridge Proposal, 1920



Existing Willamette River Bridges

Downtown Portland Area



1 Fremont Bridge



2 Broadway Bridge



3 Steel Bridge



4 Burnside Bridge



5 Morrison Bridge



6 Hawthorne Bridge



7 Marquam Bridge



8 Tilikum Crossing



9 Ross Island Bridge



Targeted Redevelopment

Page 15 from CC2035 Plan (Re-Adoption in April 2020)

“The Big Ideas”:

1. Celebrate Portland’s Civic and Cultural Life
2. Foster Creativity, Innovation and Productivity
3. Enhance the Willamette for People and Wildlife
4. Design Streets to be Great Places
5. Develop the Next Generation of Public Space:
The Green Loop
6. Increase the Resilience of the Central City



 = Redeveloped / under development (near bridge)  = to be developed (next to bridge)  = Targeted redeveloped (away from bridge)

Recommended Preferred Alternative

Replacement Long Span - come in different types

Tied Arch



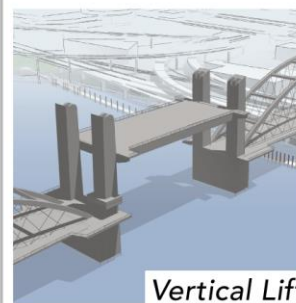
Cable Supported



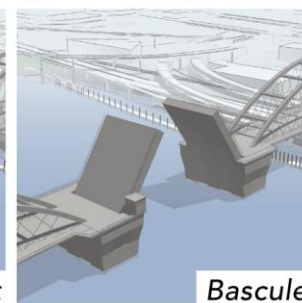
Truss



MOVABLE SPAN TYPES (EXAMPLE)



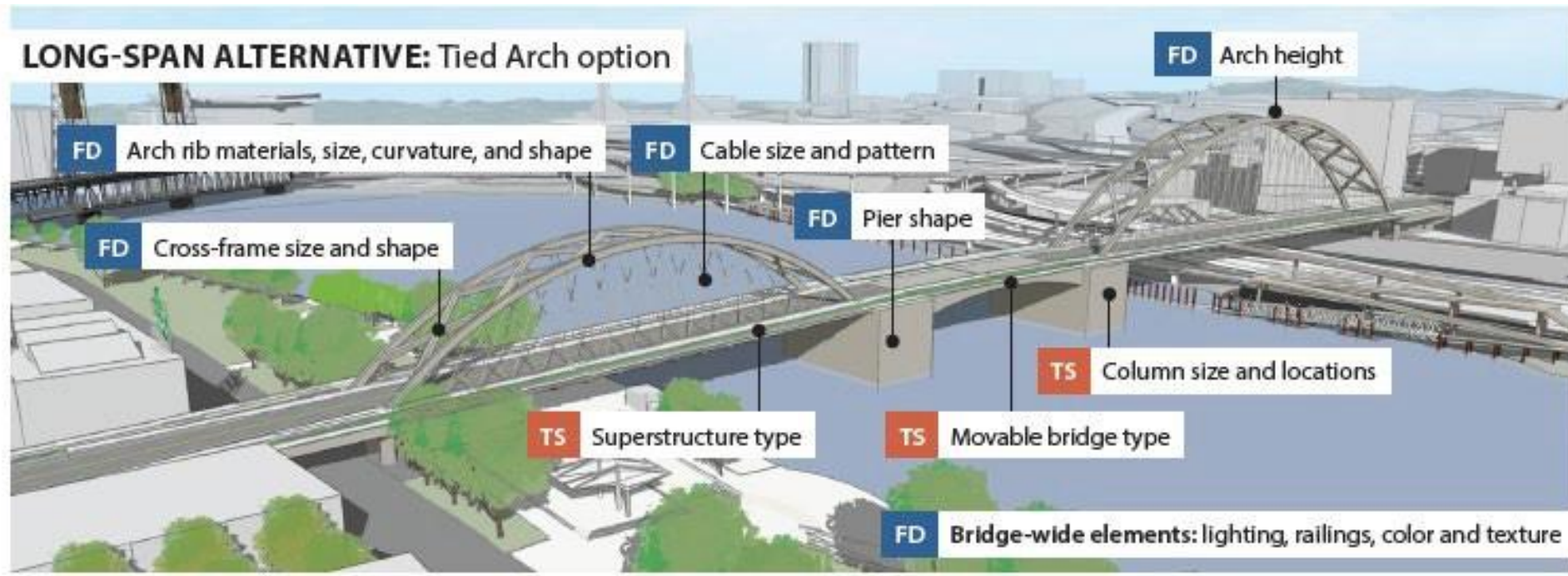
Vertical Lift



Bascule

Bridge Type Selection

What is being considered now for Type Selection?



LEGEND:

TS Type Selection Phase

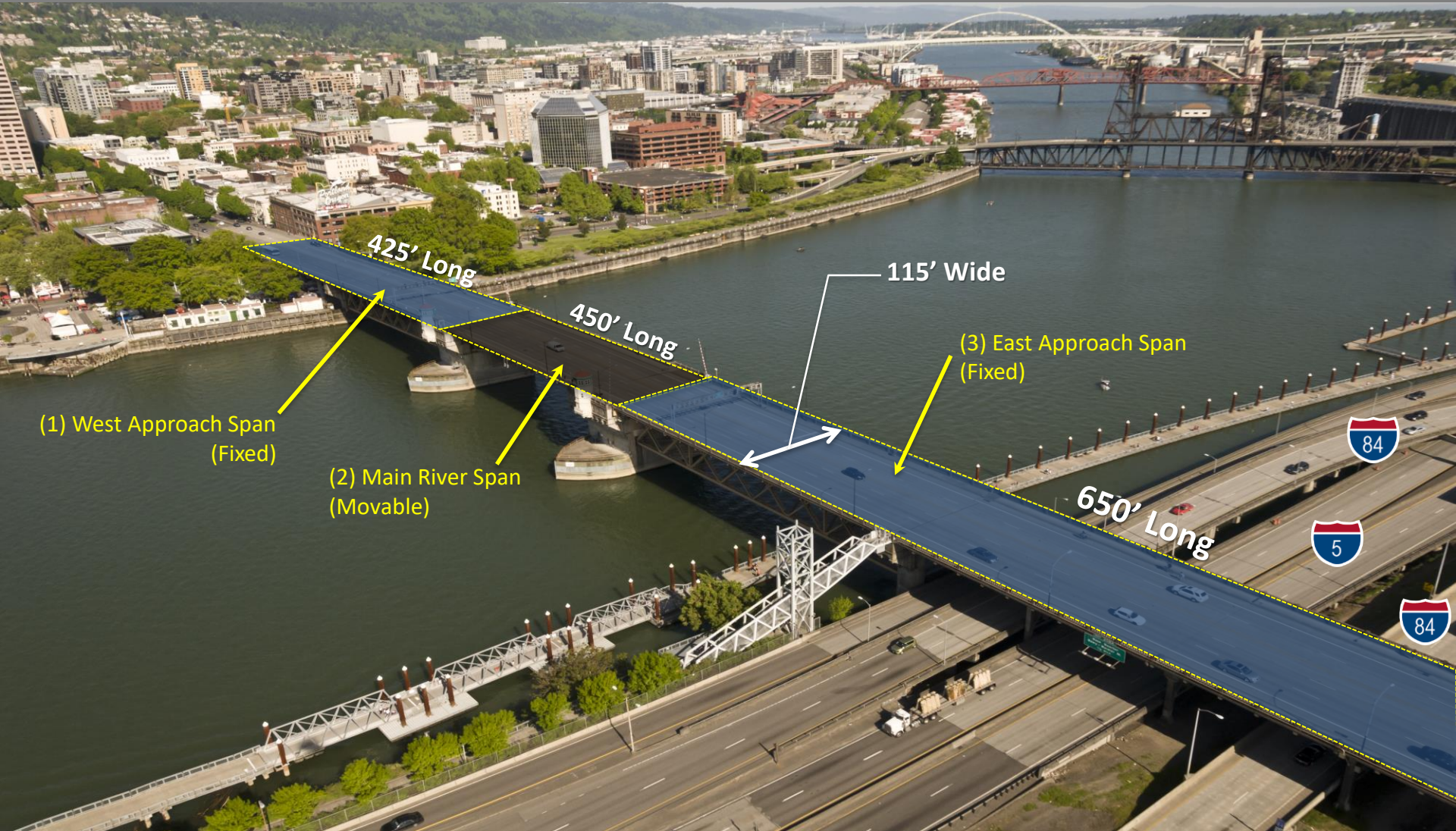
FD Final Design Phase



* Note: Other variations of these types are being considered

Range of Bridge Types

Long-span Alternative: "Three bridges in one"



Range of Bridge Types

Fixed Long Span

Tied Arch



Truss



Cable Supported



Girder (applicable to west approach only)



Range of Bridge Types

Movable Span

Lift



Bascule



Movable Bridge Type - Lift

Technically **Feasible** Lift Option: Modern Truss Tower Style

Pont Jacques Chaban Bridge, Bordeaux France



Sarah Mildred Long Bridge, Maine – New Hampshire



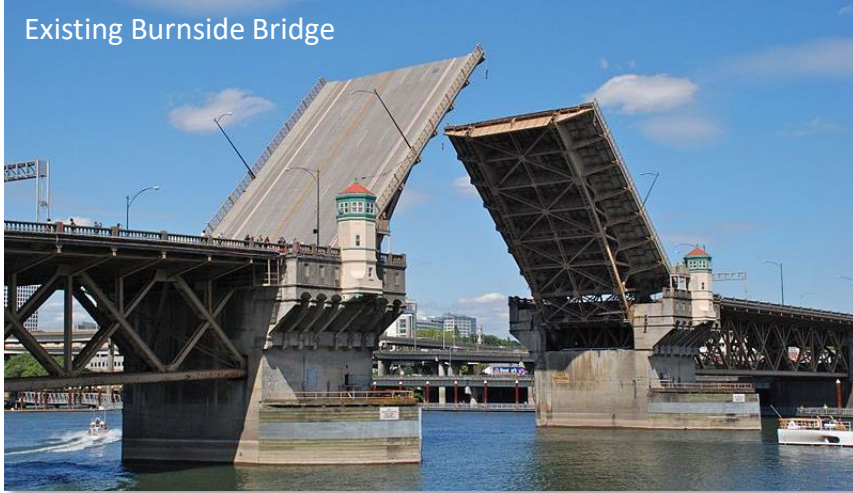
"I" St Bridge Sacramento, CA



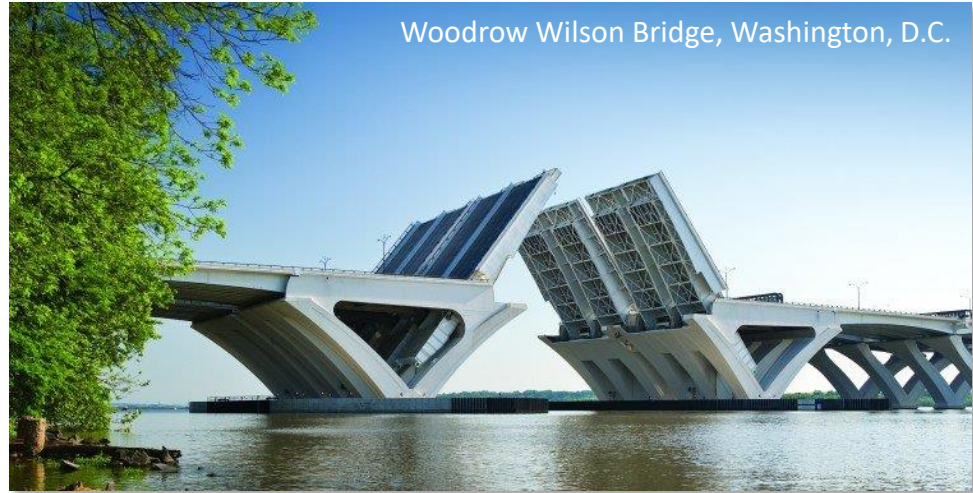
Movable Bridge Type - Bascule

Example Bascule Bridge Types

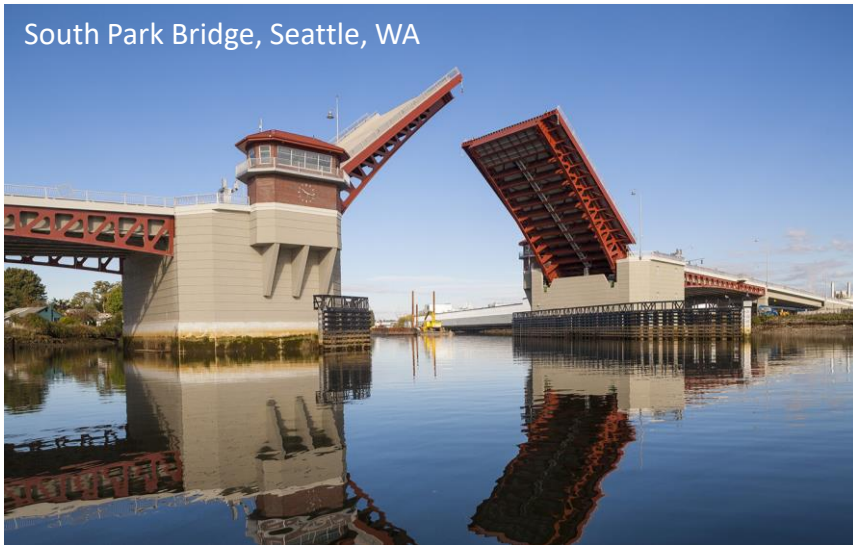
Existing Burnside Bridge



Woodrow Wilson Bridge, Washington, D.C.



South Park Bridge, Seattle, WA



Franklin St Bridge, Chicago



Movable Bridge Type - Lift

Technically **Feasible** Lift Option: Modern Truss Tower Style

Tower Bridge, Sacramento



Fore River Bridge, Quincy, Massachusetts



Chelsea St Bridge, Massachusetts



Movable Bridge Type - Bascule

Example Bascule Bridge Types



Movable Bridge Type - Bascule

Delta Pier Alternatives – Modern Style

New Johnson St Bridge, Victoria, Canada



Range of Bridge Types

Tied Arch

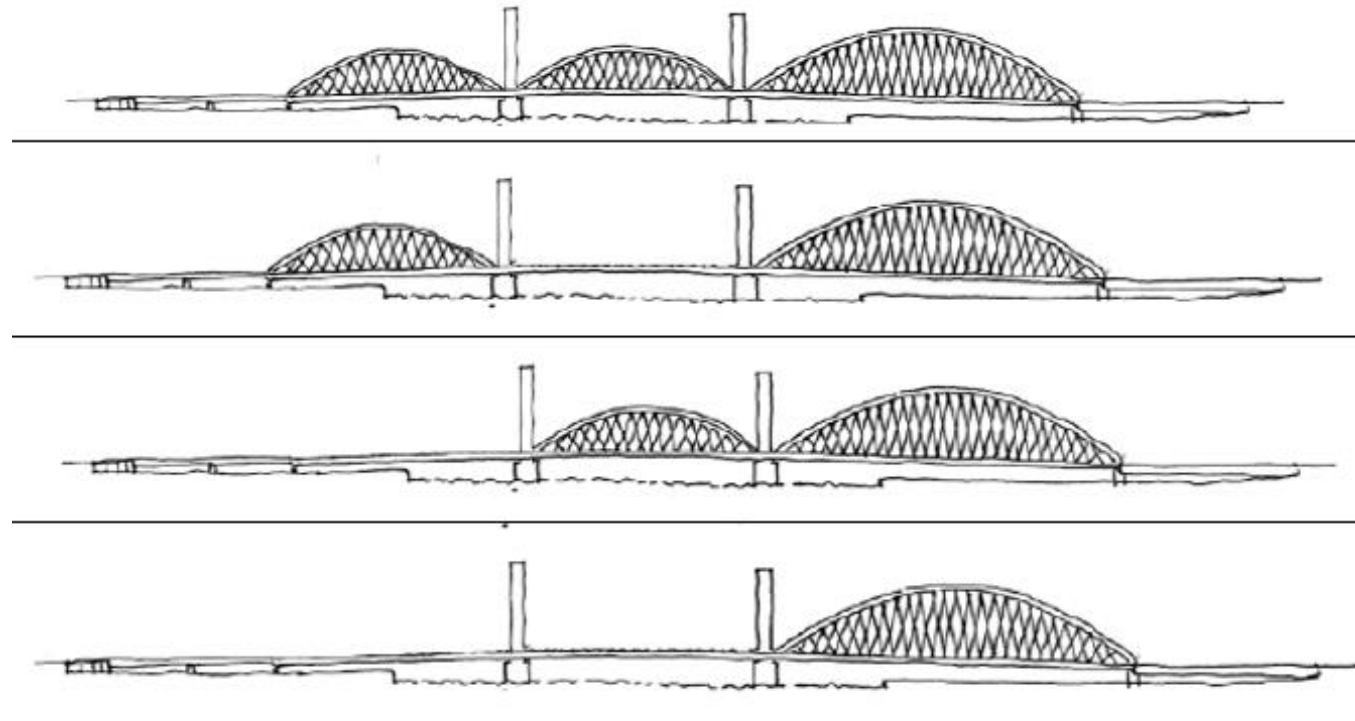


(Example concept images)

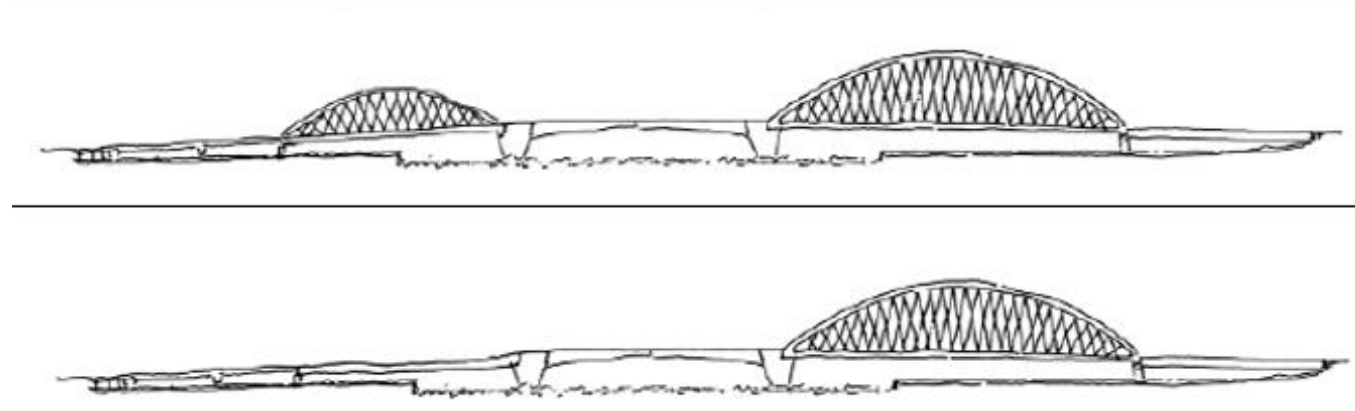
Range of Bridge Types

Tied Arch Variations

Lift Options



Bascule Options



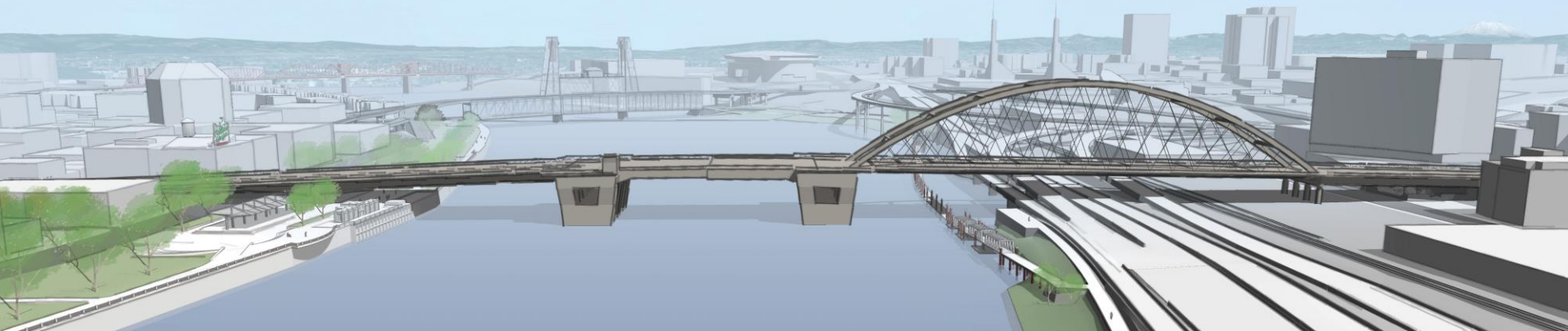
Range of Bridge Types

Tied Arch + Bascule Variations

West span = Tied Arch



West span = Girder



(Example concept images)

Range of Bridge Types

Tied Arch + Lift Variations

West span = Tied Arch



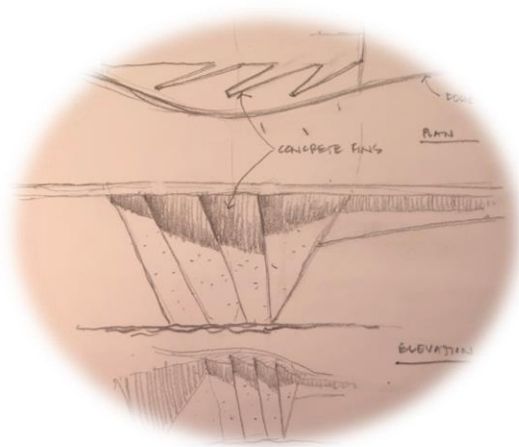
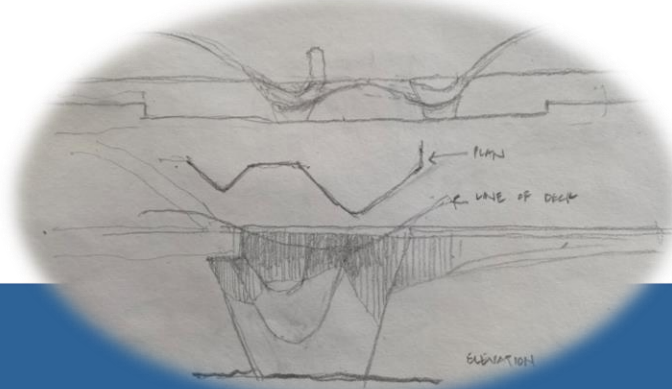
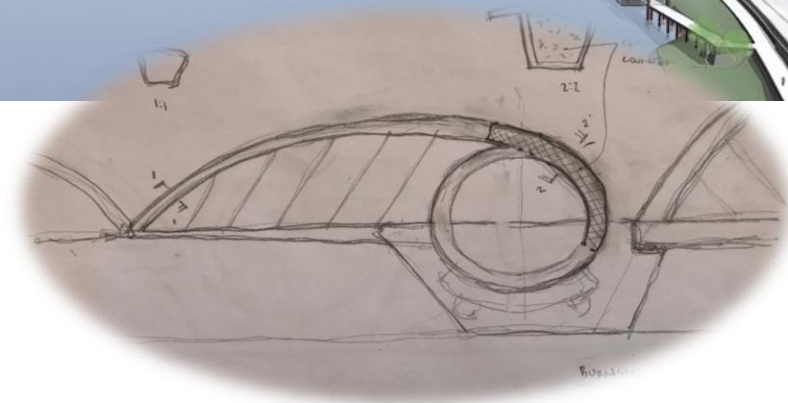
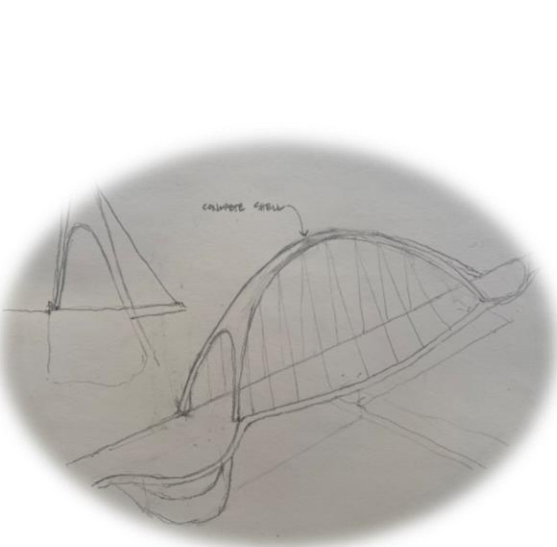
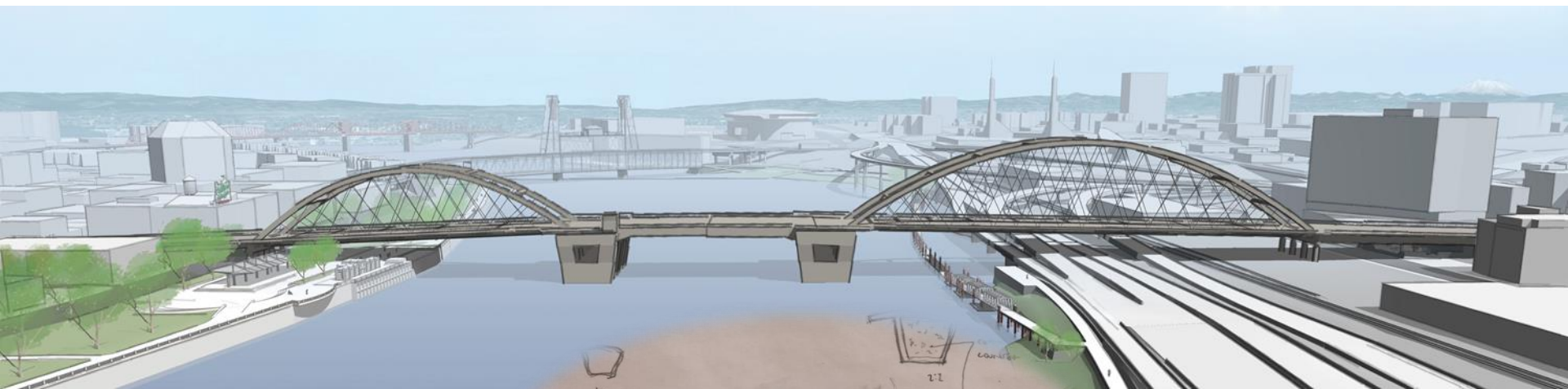
West span = Girder



(Example concept images)

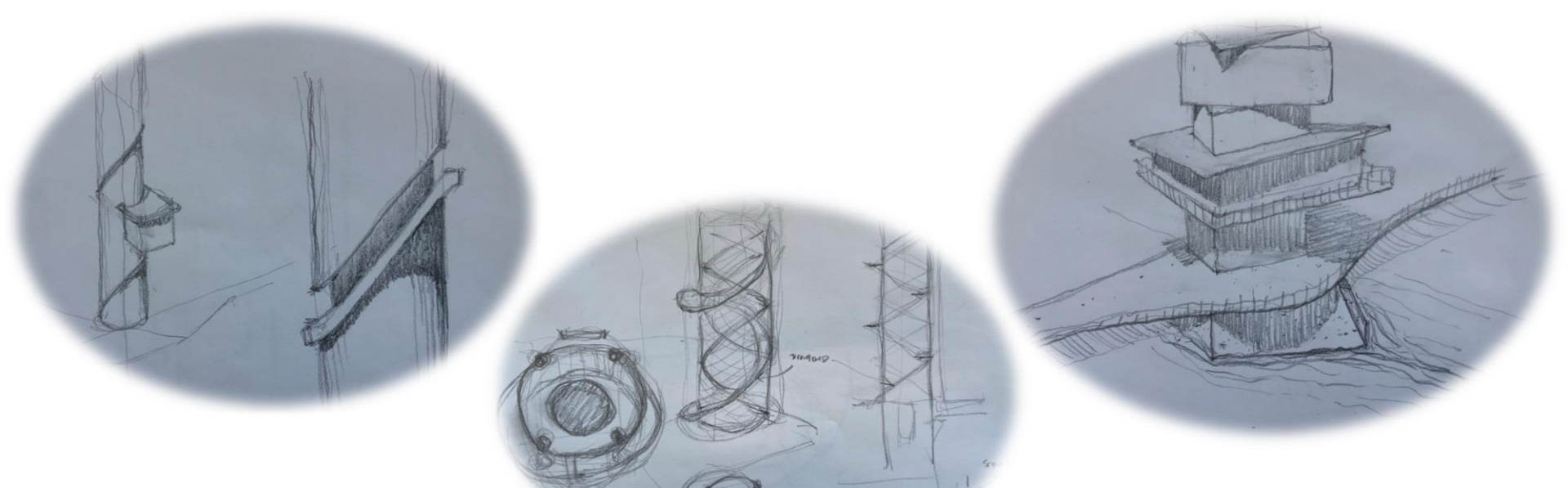
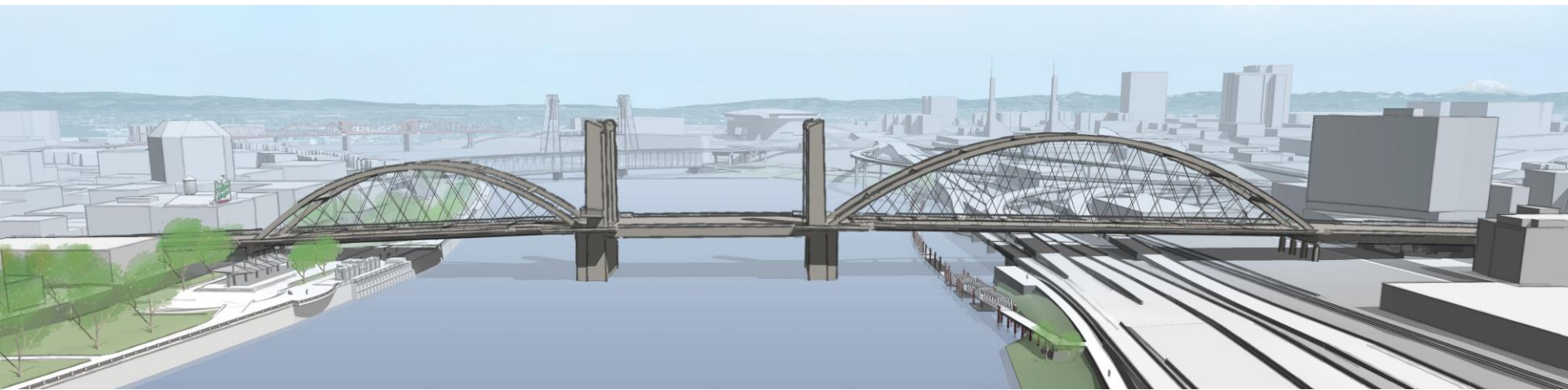
Range of Bridge Types

Tied Arch + Bascule: Enhancement Opportunities



Range of Bridge Types

Tied Arch + Lift: Enhancement Opportunities



Range of Bridge Types

Cable Supported

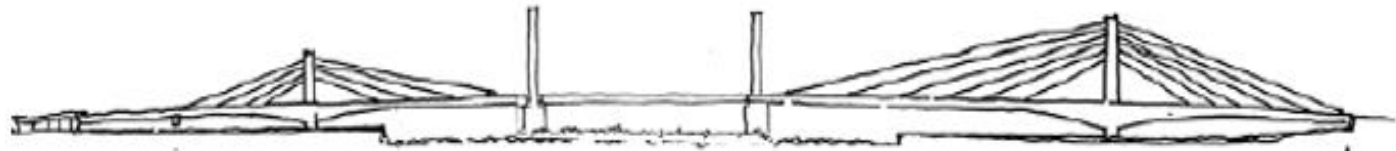
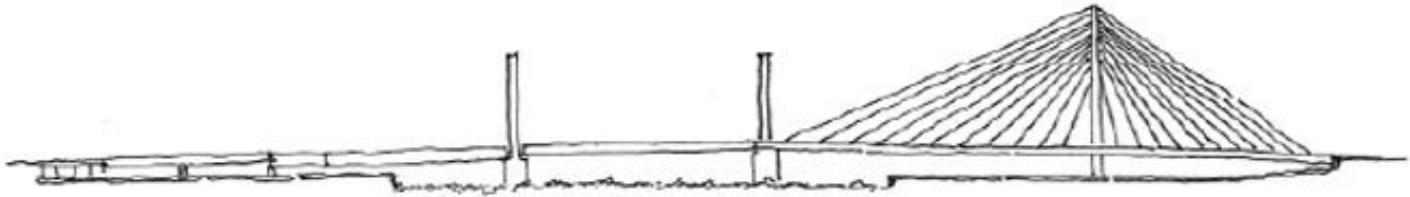
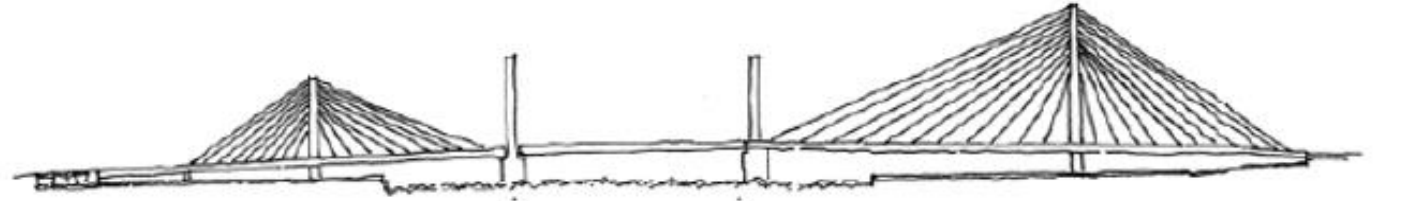


(Example concept images)

Range of Bridge Types

Cable Supported / Extradosed + Lift Variations

Lift
Options



Range of Bridge Types

Cable Supported / Extradosed + Bascule Variations

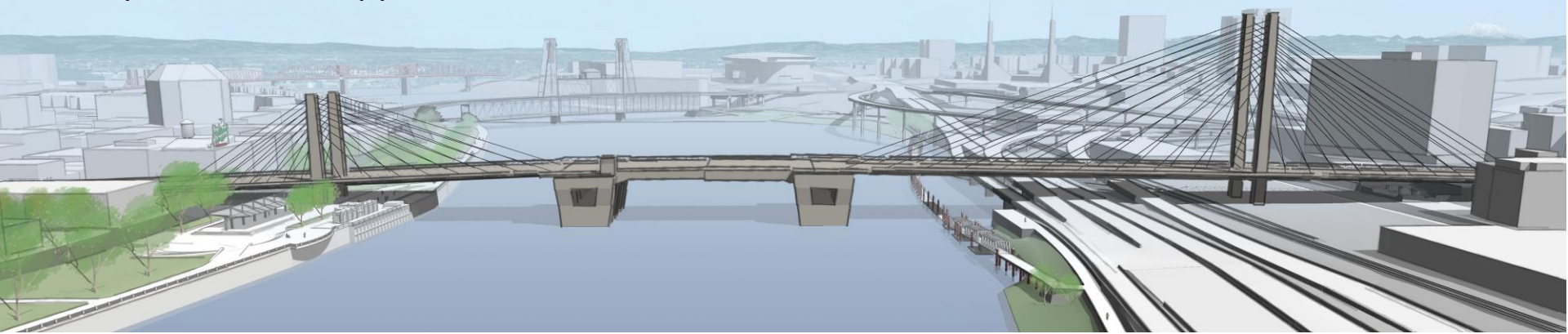
**Bascule
Options**



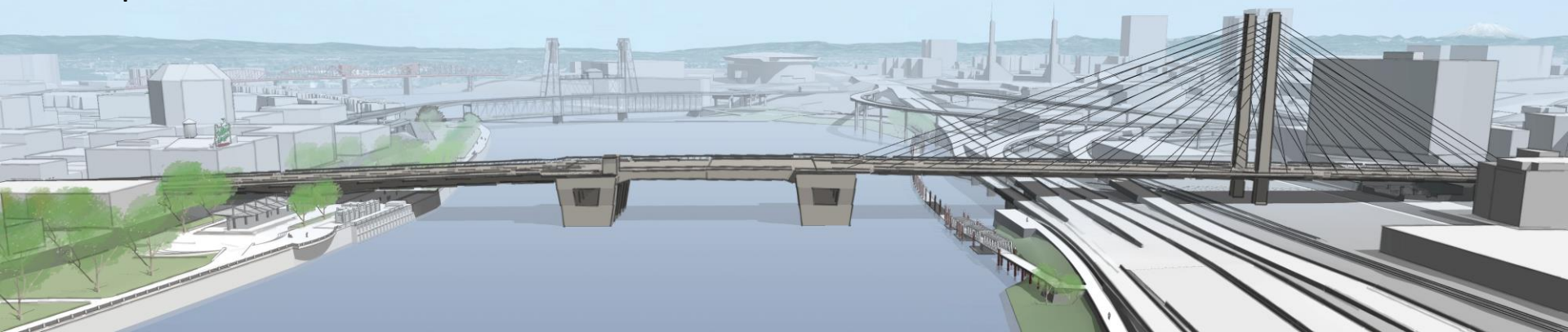
Range of Bridge Types

Cable Supported – Bascule Variations

West span = Cable Supported



West span = Girder

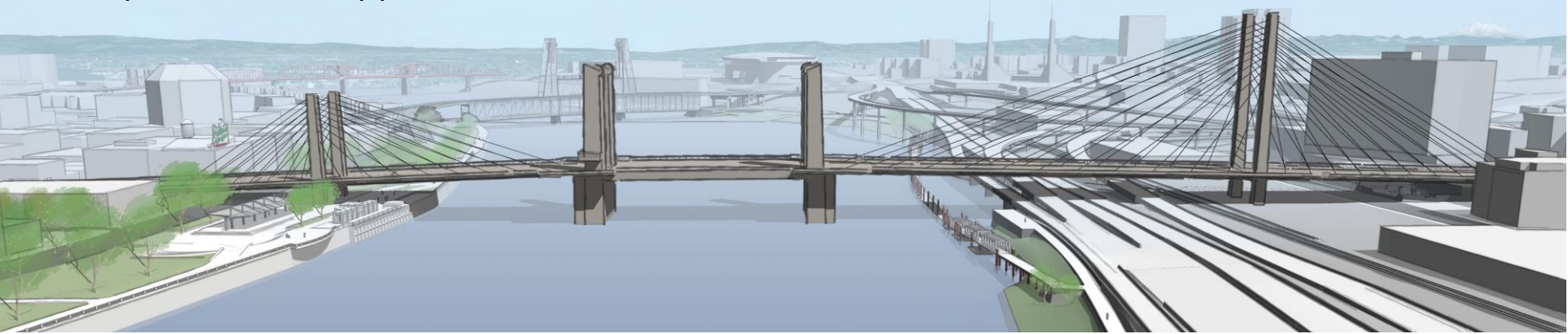


(Example concept images)

Range of Bridge Types

Cable Supported– Lift Variations

West span = Cable Supported



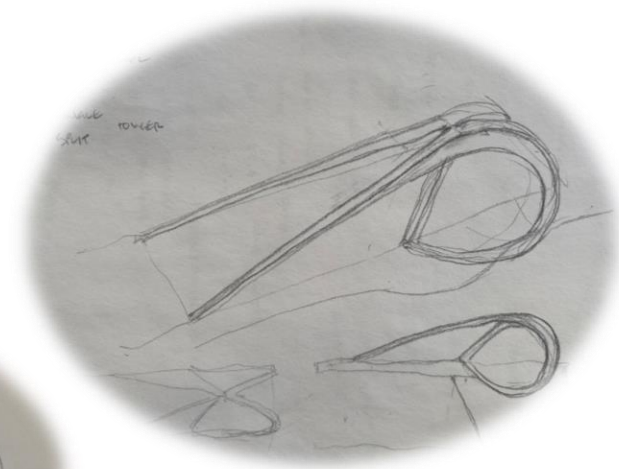
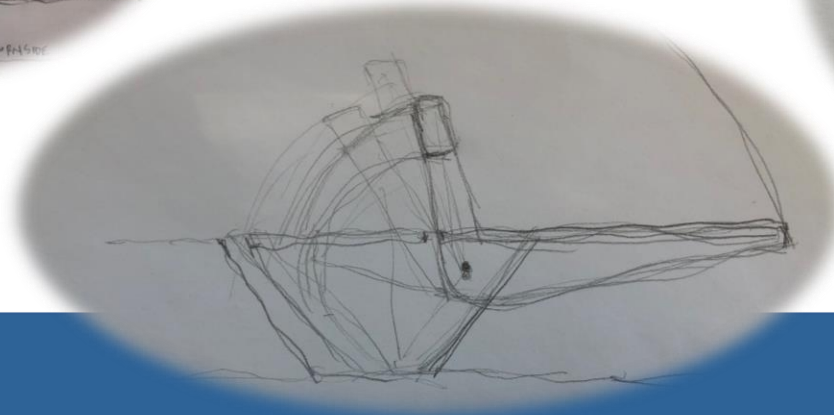
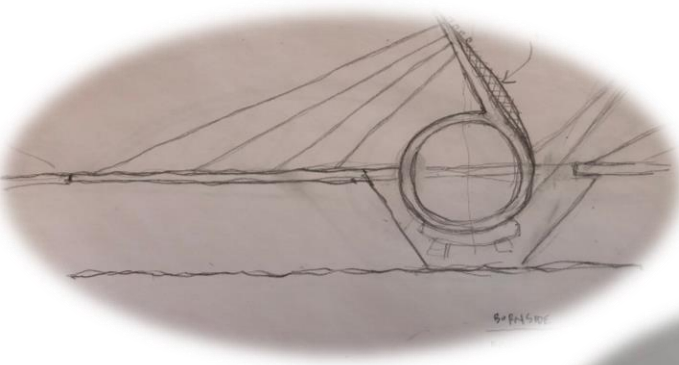
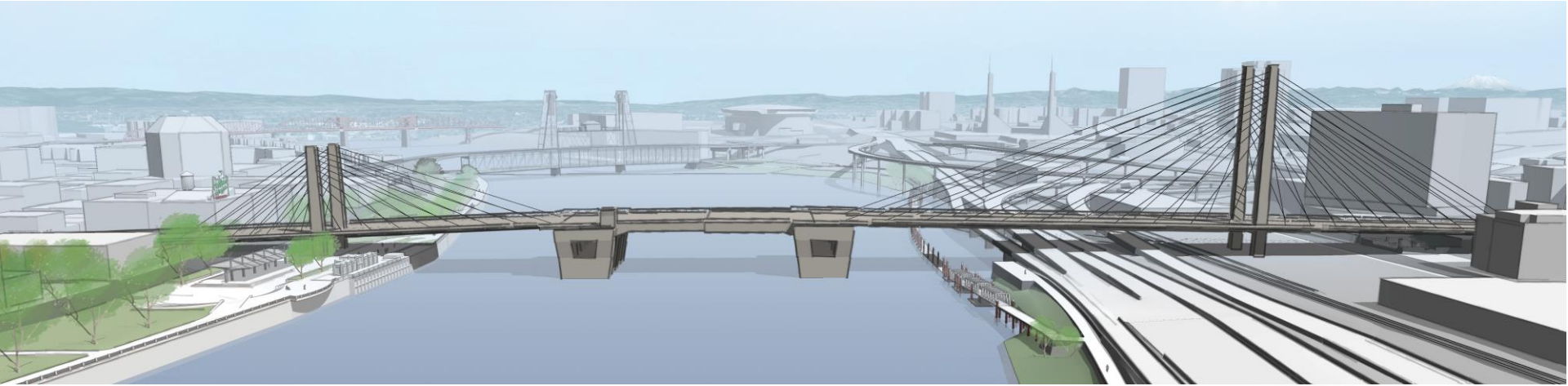
West span = Girder



(Example concept images)

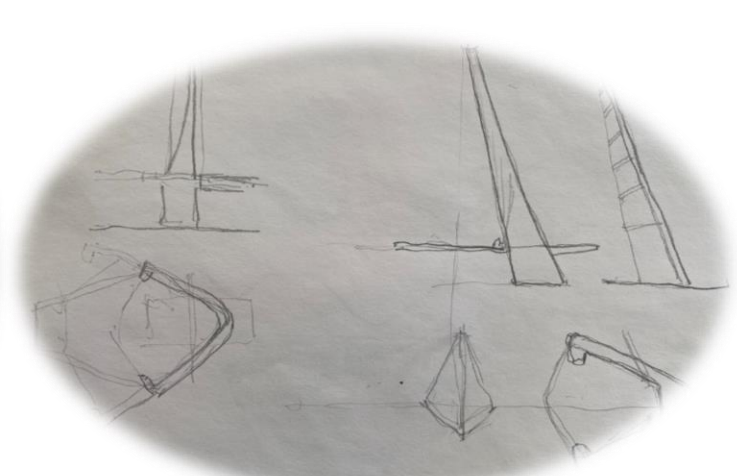
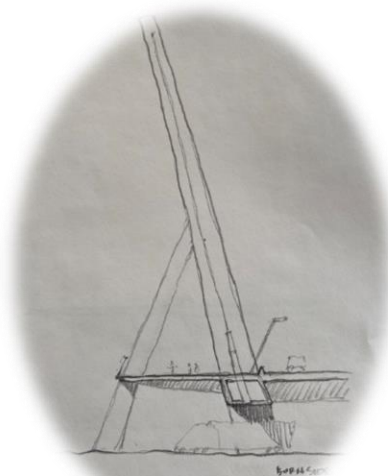
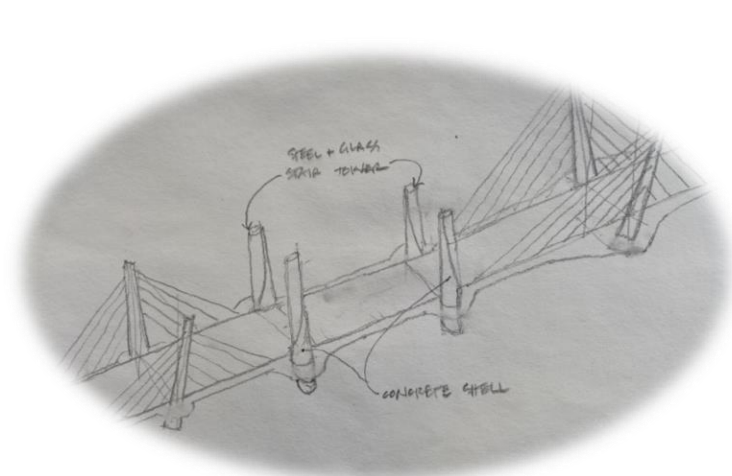
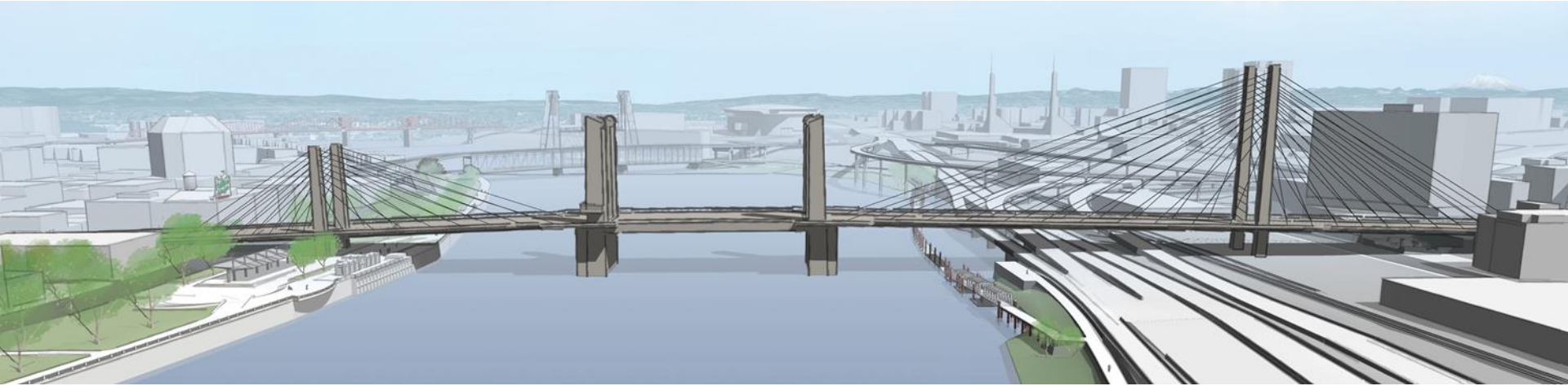
Range of Bridge Types

Cable Stayed / Extradosed – Bascule: Enhancement Opportunities



Range of Bridge Types

“Balanced” Cable Stayed / Extradosed: Enhancement Opportunities



Range of Bridge Types

Truss

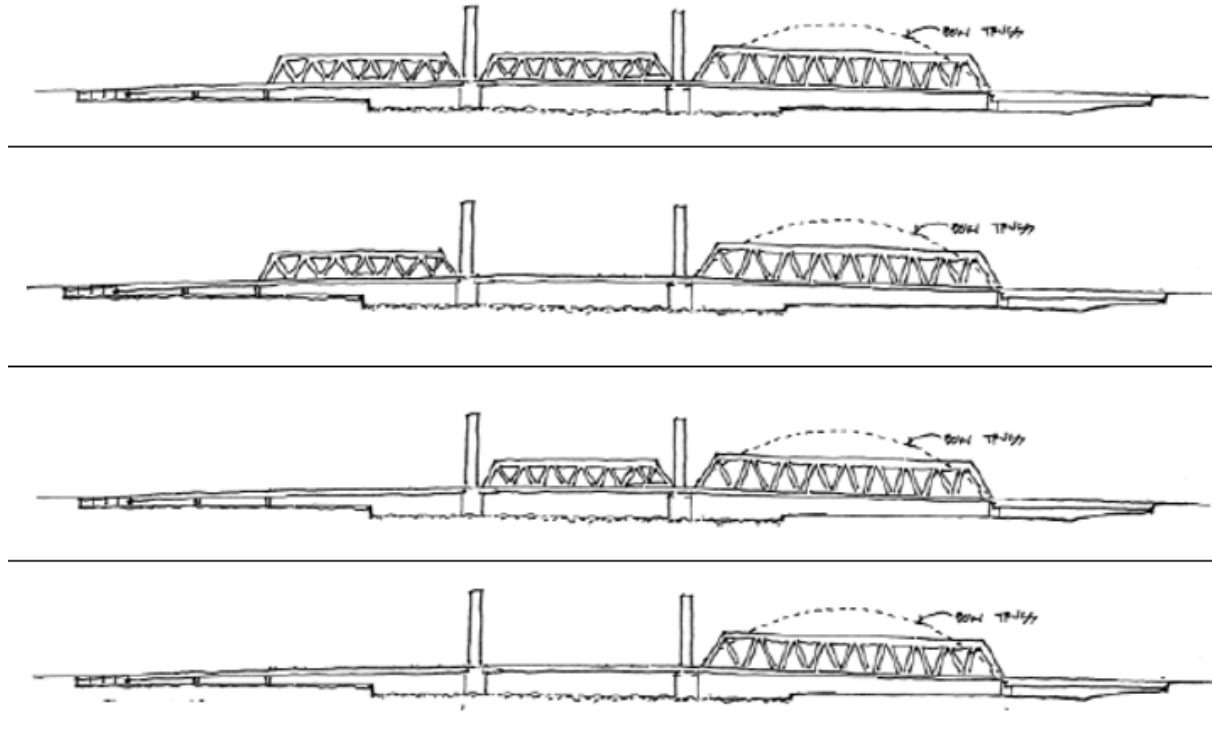


(Example concept images)

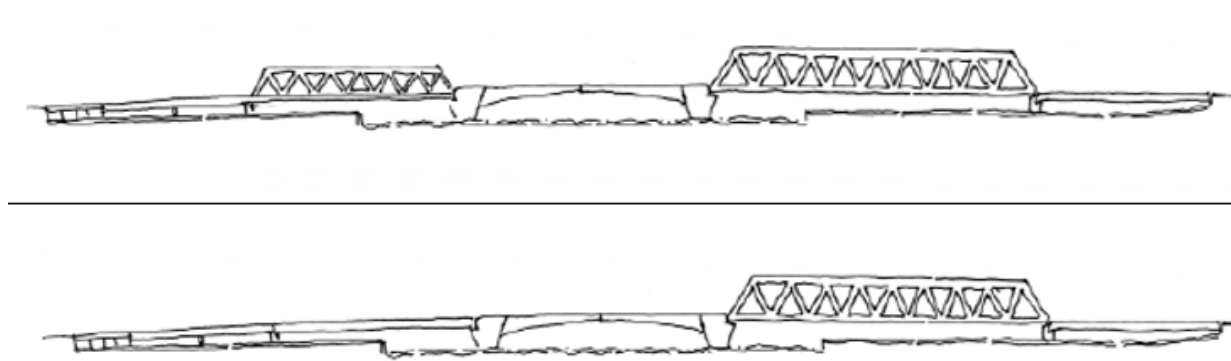
Range of Bridge Types

Truss Variations

Lift Options



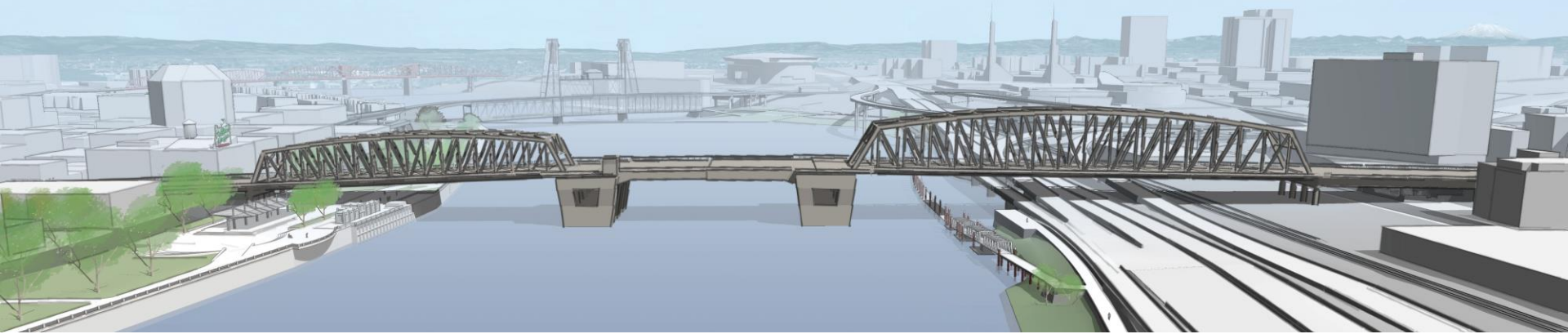
Bascule Options



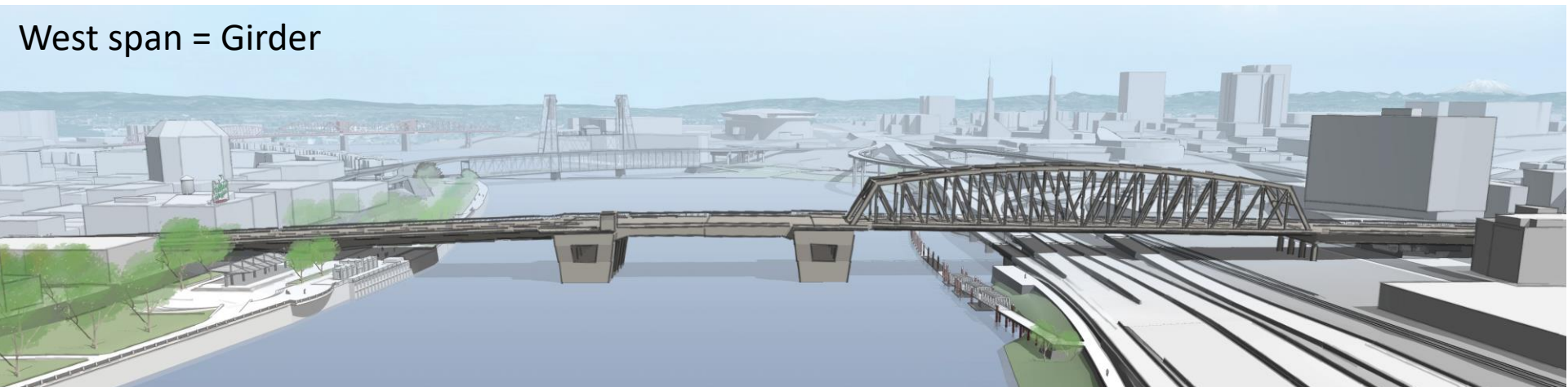
Range of Bridge Types

Truss + Bascule Variations

West span = Truss



West span = Girder



(Example concept images)

Range of Feasible Bridge Types

Truss + Lift Variations

West span = Truss



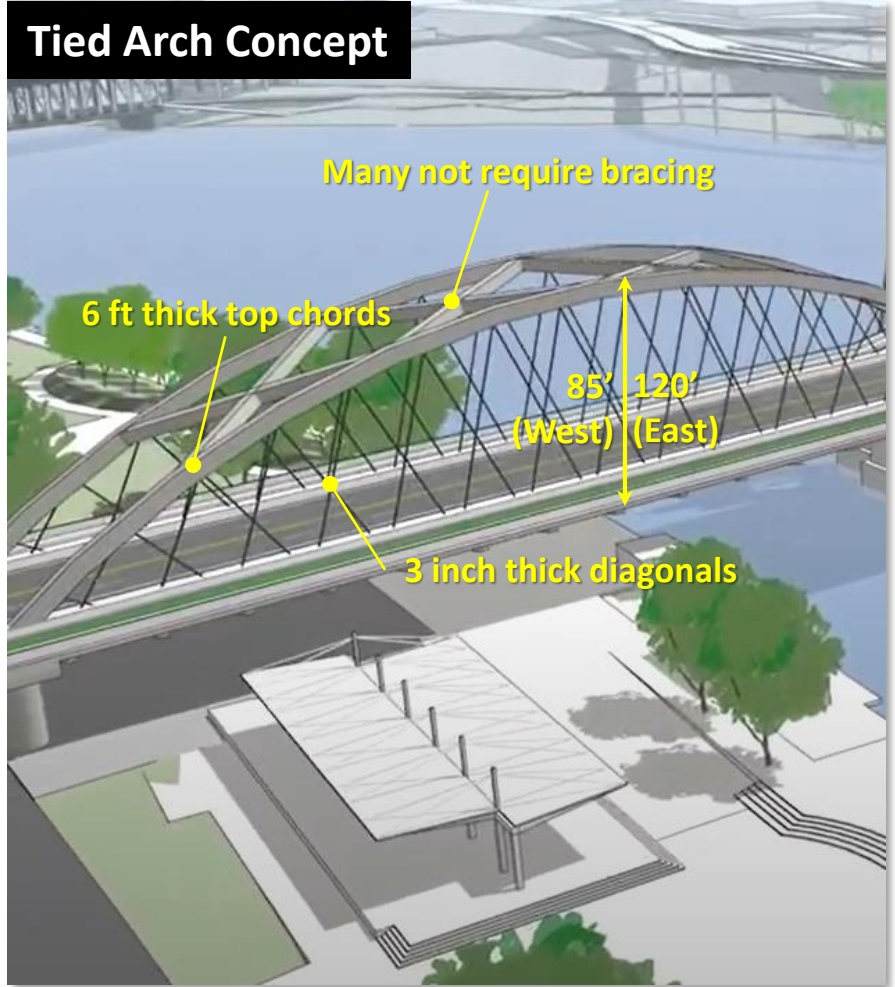
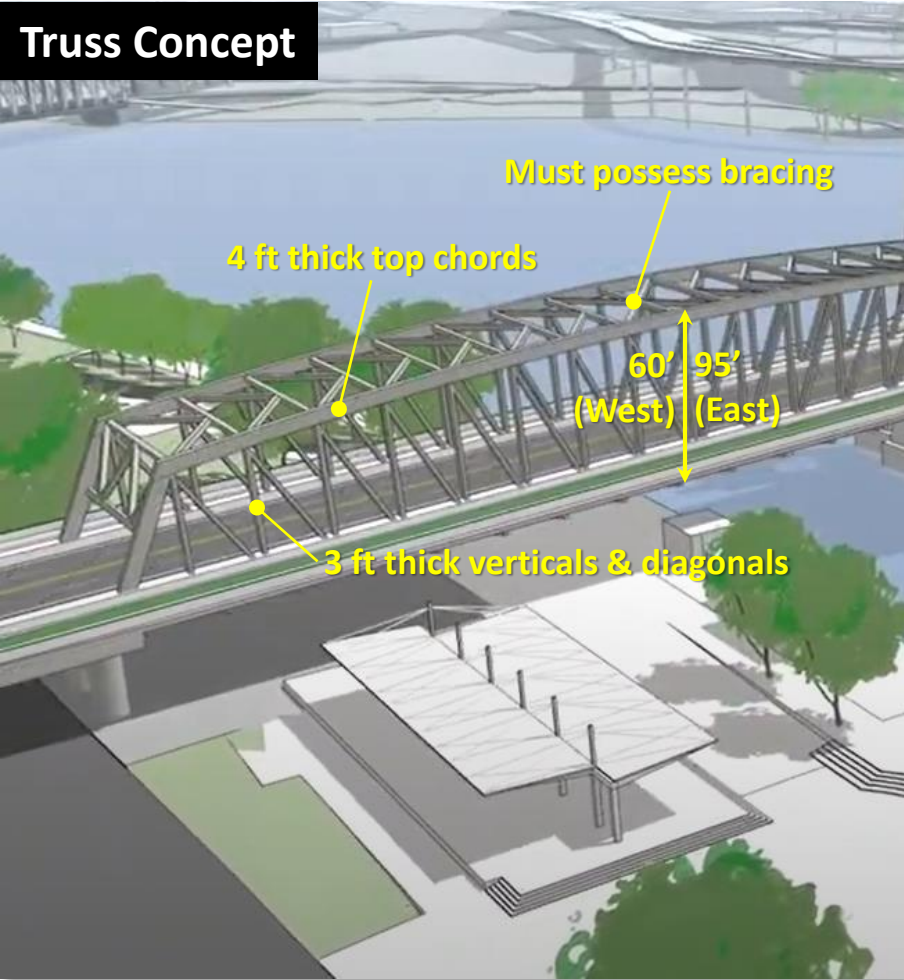
West span = Girder



(Example concept images)

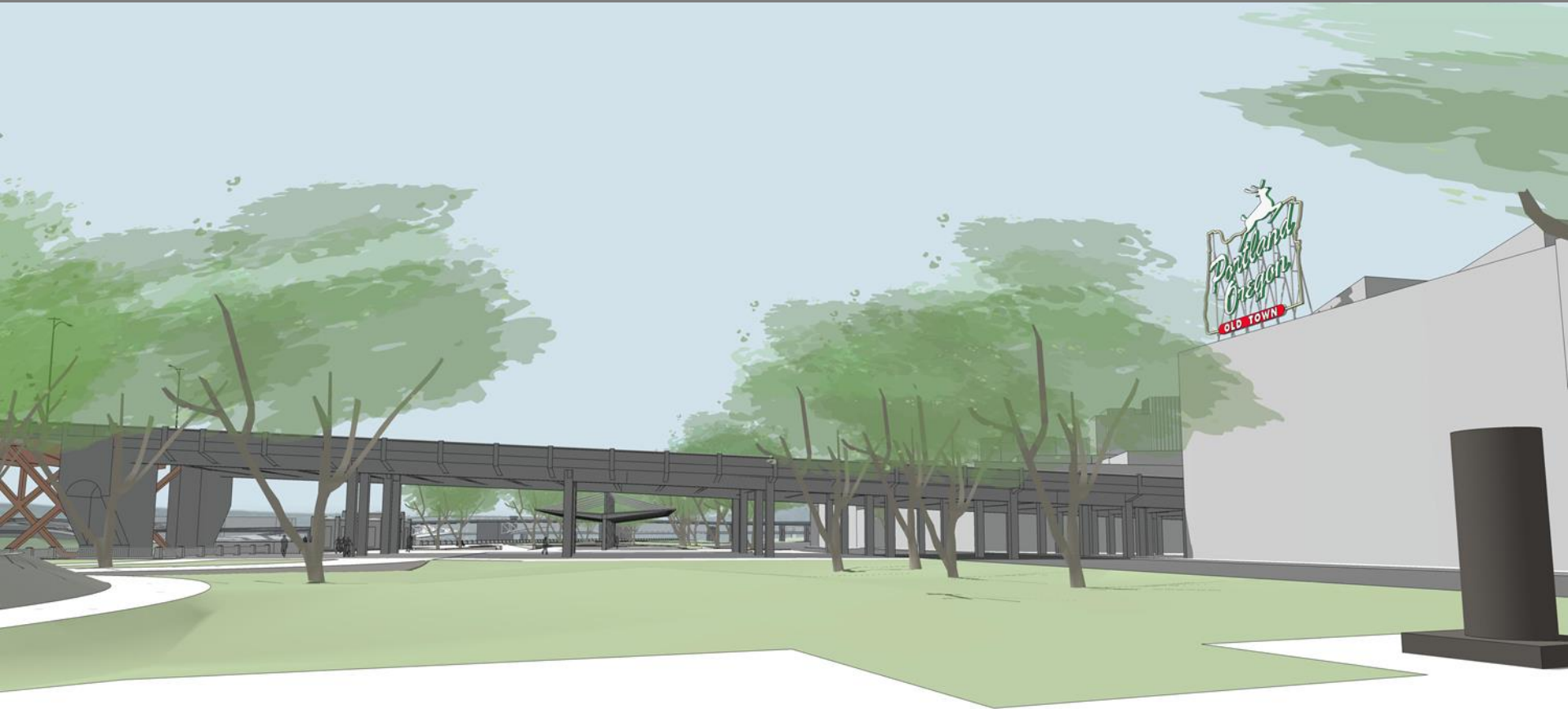
Range of Bridge Types

Truss comparison with Tied Arch



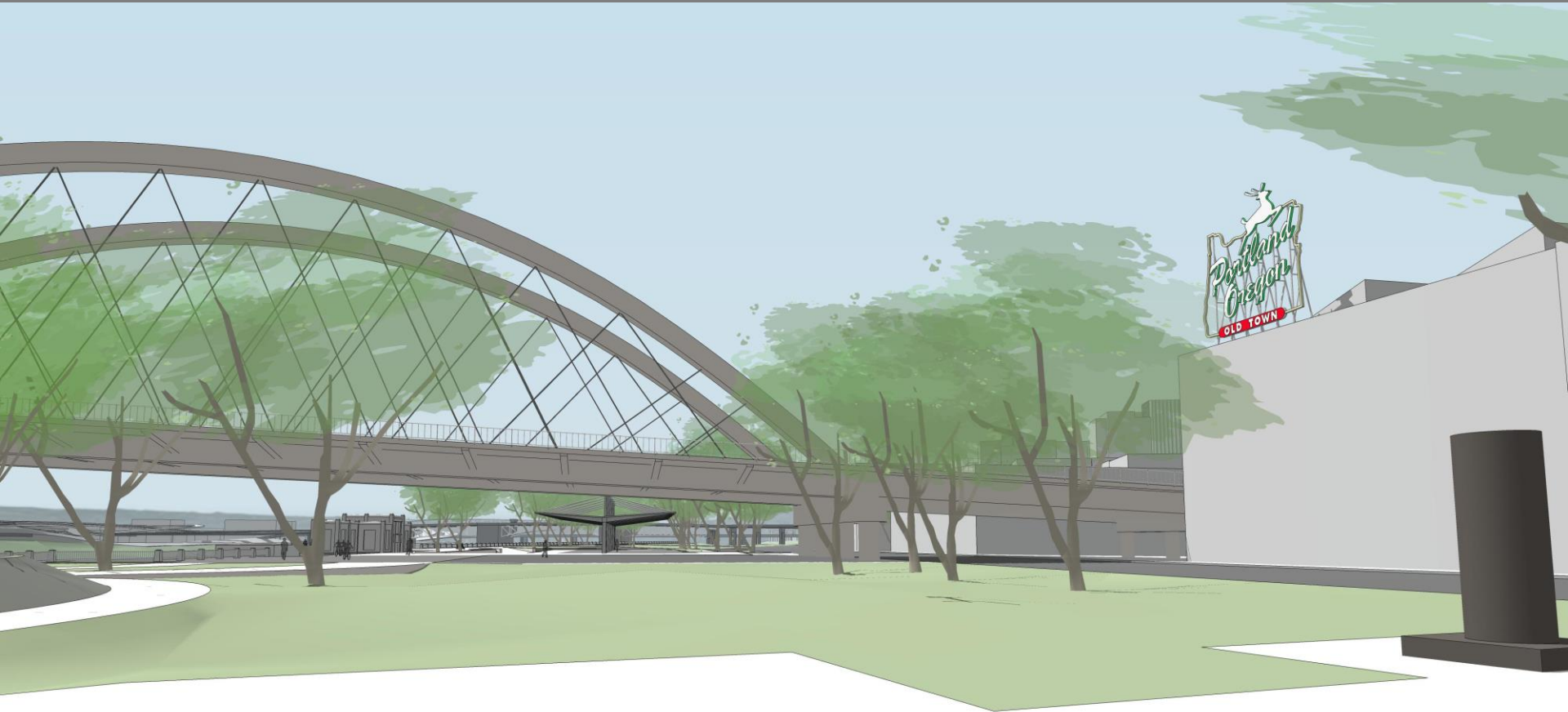
Range of Bridge Types

Waterfront Park: Existing Condition



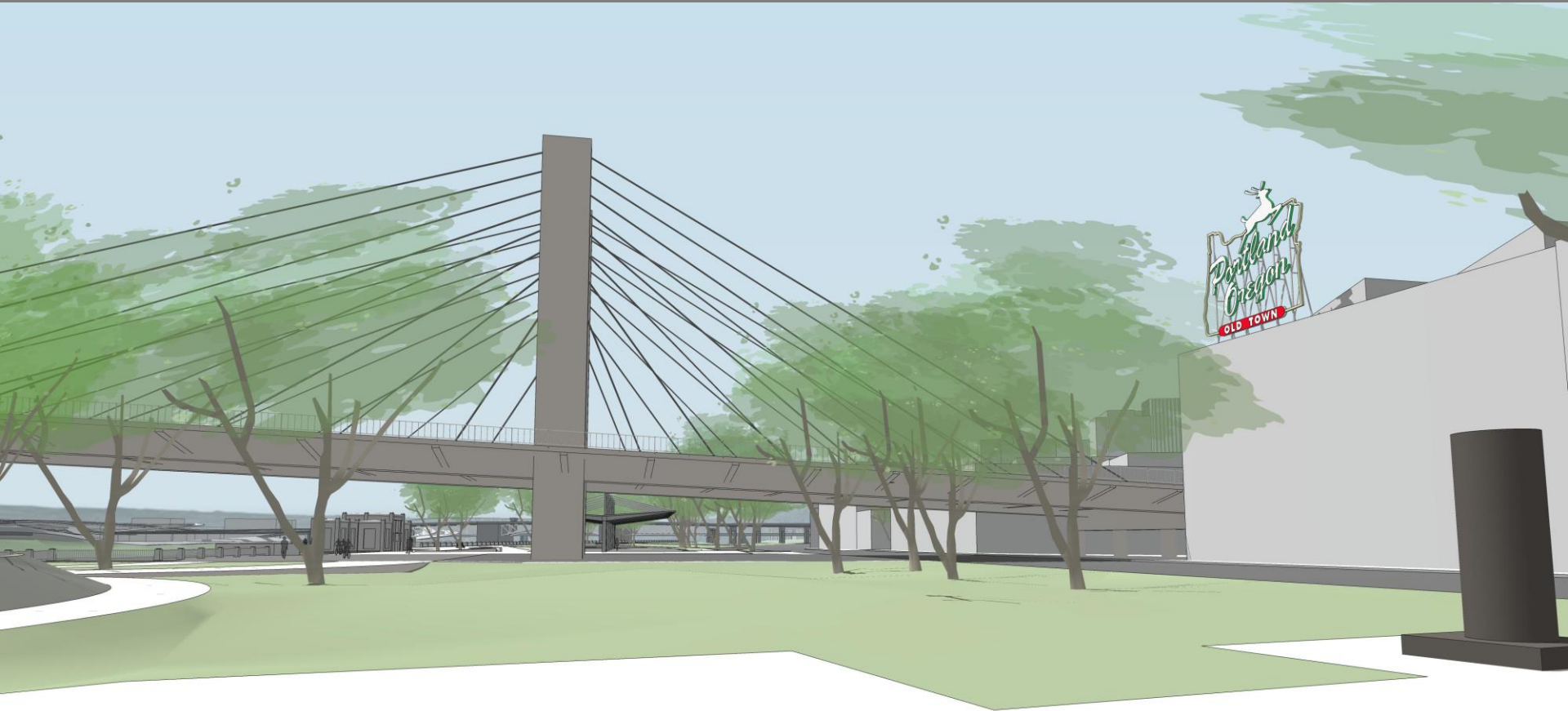
Range of Bridge Types

Waterfront Park: Tied Arch Option



Range of Bridge Types

Waterfront Park: Cable Stayed Option



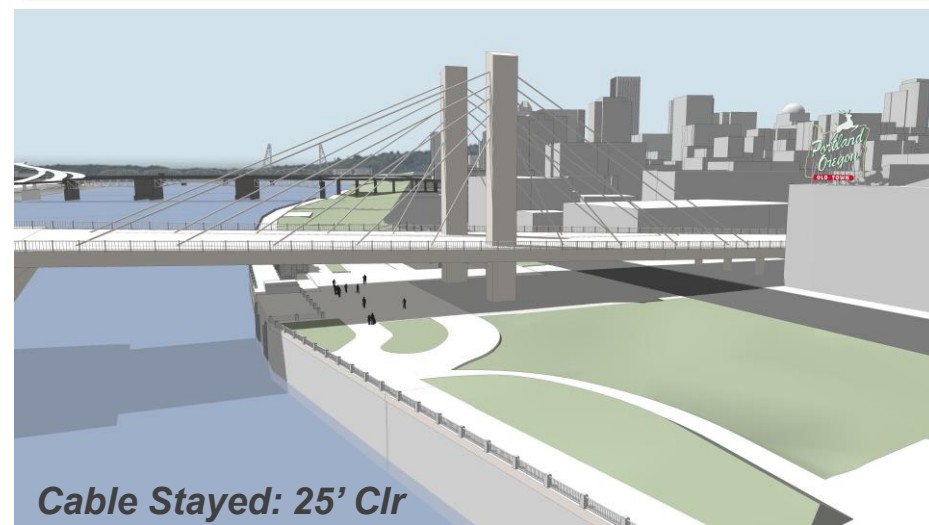
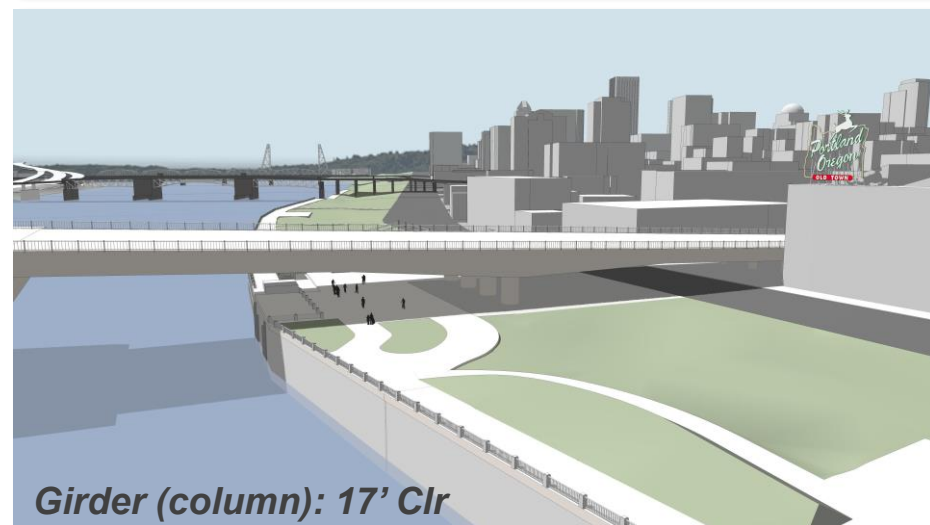
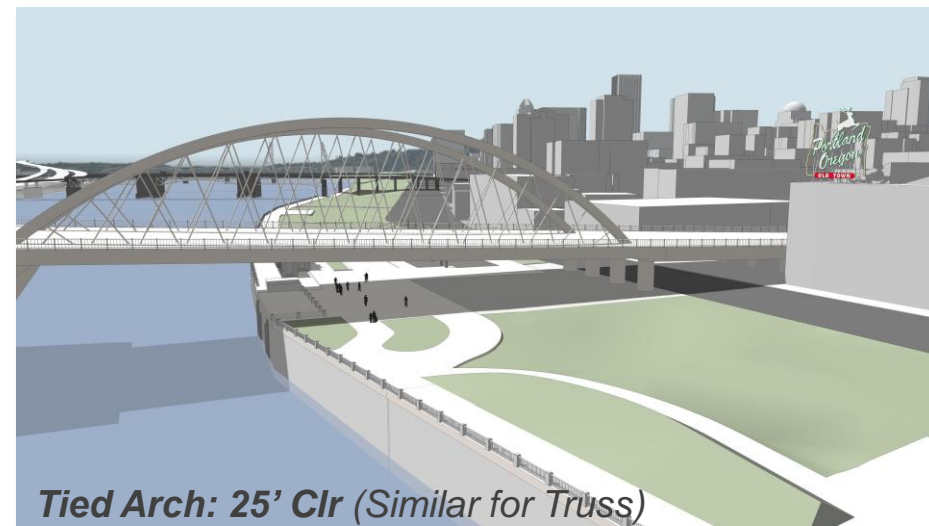
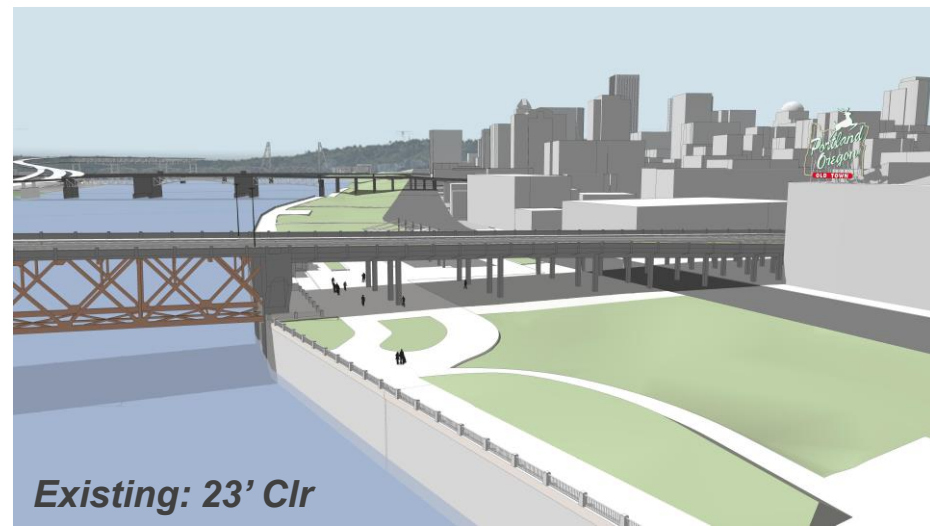
Range of Bridge Types

Waterfront Park: Girder Option



Range of Bridge Types

Waterfront Park: Range of Options



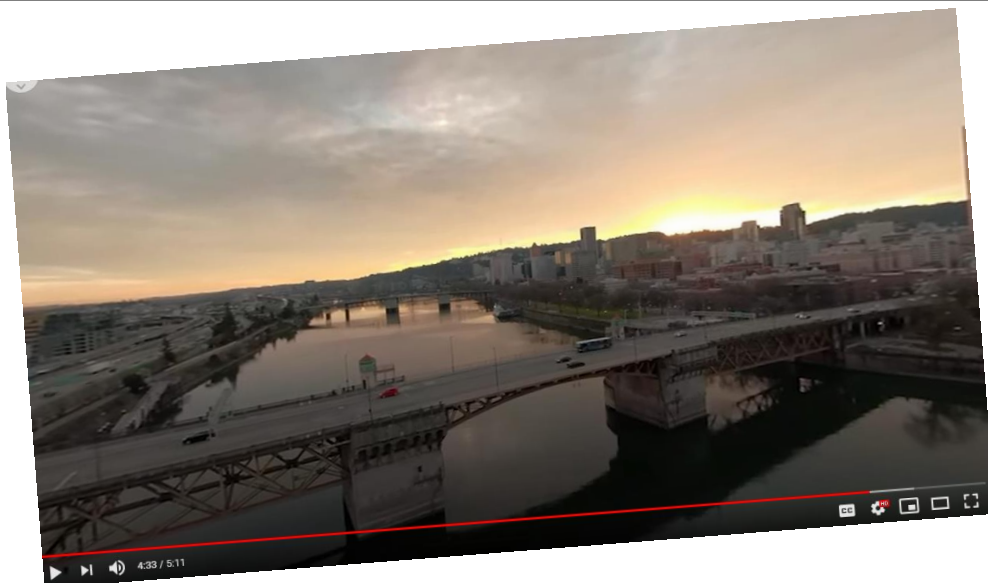
Evaluation Criteria Topics

Human Experience & Bridge Surroundings	On-bridge Experience
	Below-bridge Experience
	Relation to Surroundings
	Pedestrian and Bicyclist Connectivity (TBD – May not Differentiate)
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



Outreach: Bridge Type Selection

January 22 – February 21



Objective: Gather input on range of bridge types and evaluation topics

Key Activities:

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



ENVIRONMENTAL REVIEW (EIS)

- **January/February 2021:** Comment period on Draft Environmental Impact Statement (DEIS)
- **Spring/Summer 2021:** Review and address DEIS comments and update mitigation
- **Fall 2021:** Final Environmental Impact Statement and Record of Decision

BRIDGE TYPE SELECTION

- **January/February 2021:** Outreach on Range of Bridge Types and Criteria
- **March 2021:** Policy Group Approval of Bridge Type Options and Evaluation Criteria
- **May/June 2021:** Community Outreach on Recommended Bridge Type
- **July 2021:** Policy Group and Multnomah County Board of County Commissioners Approval of Bridge Type



Thank you!

