



**EARTHQUAKE**  
**READY**  
**BURNSIDE BRIDGE**



# Consulting Parties Advisory Group

Meeting #2 – June 14, 2024

# Agenda

## Agenda Topic

**Welcome and Roll Call**

**Review Topics from Meeting #1**

**Focus for Meeting #2**

**Charter Review and Virtual Endorsement**

**Forms and Timing of Input**

**Design Related Mitigation**

- Interpretive Displays
- Salvage and Reuse
- 3-D Scanning
- Compatibility with NHL District

**Next Steps**



# Welcome and Roll Call



- Section 106 Signatories (FHWA, SHPO, ODOT, Multnomah County, ACHP)
- Tribal Partners
- Agencies (NPS)
- Organizations & Individuals



# Review Topics from Meeting #1



- Discussed Meeting Approach and Role of Advisory Group
- Reviewed the Charter and Workplan
- Provided an Earthquake Ready Burnside Bridge project update
- Reviewed the contents of the Section 106 Programmatic Agreement and mitigation items



# Focus of Meeting #2

Finalize Advisory Group Charter

Discuss forms and timing of input

Discuss Design-related Mitigation Items

Look ahead to next steps



# Advisory Group Charter

- Operation

- Roles and Responsibilities
- Meeting Frequency and Location
- Communication Protocols
- Meeting Materials
- Media Contact
- Governance Structure
- Progress and Recommendation Tracking
- Conflict of Interest

- Discussion and Endorsement



# Forms and Timing of Input

- Accept written as well as verbal input

Email to [EQRB-Consulting-Parties@multco.us](mailto:EQRB-Consulting-Parties@multco.us)

- Reaches ODOT, MultCo, and Project Team staff
  - Can be used to request a meeting with Bob and Roy
  - Records of input will be attached to meeting notes
- For missed meetings, please review materials
  - Please provide follow up input within two weeks of the meeting

# Design Related Mitigation Items

**Interpretive  
Displays**

**Salvage  
and Reuse**

**3D  
Scanning**

**NHL  
District**



# General Discussion Approach

Programmatic  
Agreement Guidelines

Examples

Likes and  
Dislikes

Opportunities  
and Constraints

Questions  
and  
Discussion

Direction to  
move forward

# Interpretive Displays



Interpretive  
Displays

## Programmatic Agreement Guidelines

Multnomah County shall contract with an experienced firm for the graphic design, display design, and fabrication of three (3) permanent outdoor interpretive displays, consisting of not more than two (2) panels each depicting the Burnside Bridge and its history and significance, including the bridge's social and civic importance.

Multnomah County shall install the panels on the new Burnside Bridge. These panels may either be identical in content or encourage users to explore different aspects of the area's history. Multnomah County shall install the interpretive panels no later than the time of bridge opening and shall maintain the panels for a minimum of 10 years in the event the displays are vandalized or weather prematurely.

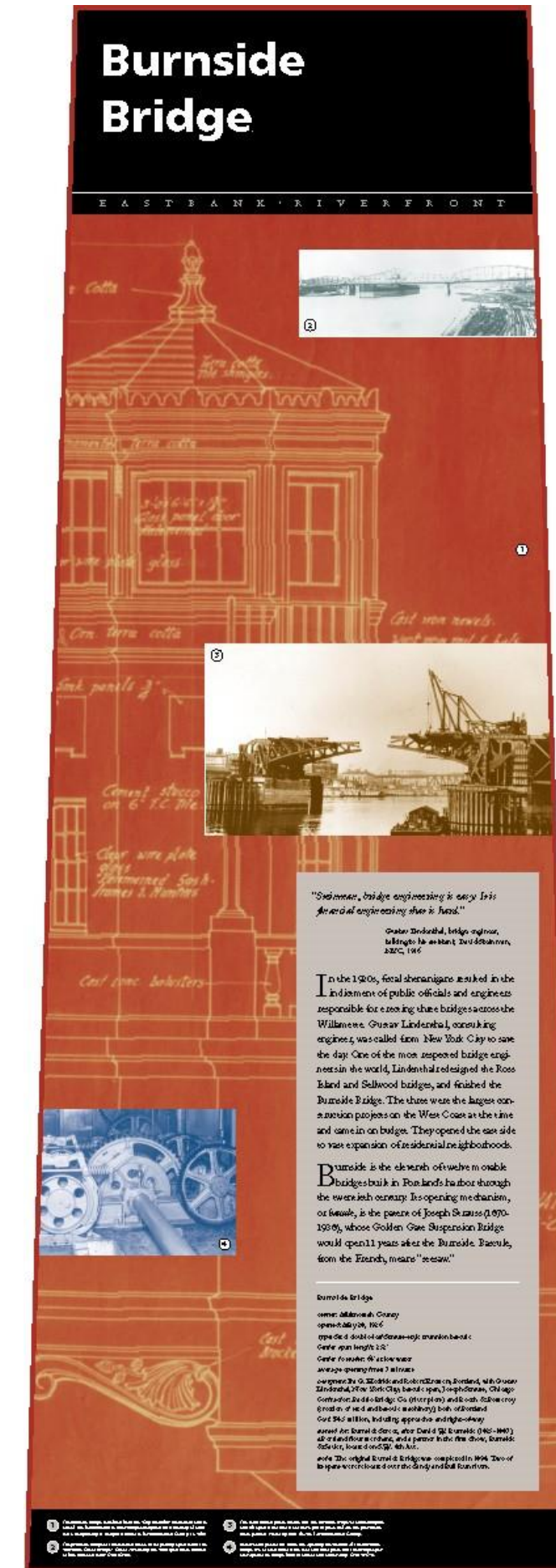


# Interpretive Displays

## Eastbank Esplanade



Courtesy of Mayer/Reed





# Interpretive Displays

## Burnside Bridge

EAST BANK RIVERFRONT



"Swimmer, bridge engineering is easy. It's a matter of engineering the hole."

Quote: Structural bridge engineer, Billingsley is assistant, David Johnson, 1920s, 1940s

In the 1920s, federal chemurgists and the Lindbergh of public officials and engineers responsible for crossing these bridges across the Willamette. Gustav Lindbergh, consulting engineer, was called from New York City to save the day. One of the most respected bridge engineers in the world, Lindbergh redesigned the Ross Island and Salwood bridges, and finished the Burnside Bridge. The three were the largest construction projects on the West Coast at the time and came in on budget. They opened the way to vast expansion of residential neighborhoods.

Burnside is the clearest of wells in on-site bridge built in Portland harbor through the wreckage of the city. Its opening mechanism, or keel, is the patent of Joseph Strauss (1870-1939), whose Golden Gate Suspension Bridge would open 11 years after the Burnside. There, from the French, means "seawall."

**Burnside Bridge**  
 Name: Burnside Bridge  
 Opened: 1926  
 Type: Steel cantilever suspension bridge  
 Length: 1,100 feet  
 Height: 120 feet  
 Average speed: 30 mph  
 Designer: Joseph Strauss  
 Engineer: Joseph Strauss and Robert Strauss, Portland, WA  
 Contractor: The Steel City Bridge Co., Portland, OR  
 Construction: Steel City Bridge Co. (contractor) and Steel City Bridge Co. (engineer) and Steel City Bridge Co. (contractor) and Steel City Bridge Co. (engineer)  
 Notes: The original Burnside Bridge was completed in 1926. The bridge was replaced in 1976 and 1987. The bridge is a landmark of the city and is a symbol of the city's history.

## Salmon and the Willamette River

EAST BANK RIVERFRONT



Chinook salmon swim upstream downriver from the ocean to spawn in the cool, clean water of the main stem and tributaries of the Willamette. Young fish die back down main stem way to the ocean, resting and feeding in the shallows and backwaters along the river margin. Since chinook fish are anadromous, they have adapted to both river and ocean habitats. They have modified the river to serve industry, business, recreation, shipping, farming, power generation and flood control. Both water quality and fish populations have declined. Chinook salmon was listed as an endangered species in 1999.

People now seek ways to improve floodplains and salmon habitat through planning and design of urban environments at the river's edge. Floodplain areas can be placed in nature place biowalls before flowing into the river. Side areas can be an ood to allow salmon to return their ancestral homes. Nature place reintroduced on the river banks provide shade, bank protection, and overhanging cover where fish can hide. They create habitat for insects, birds, frogs, beaver and other wildlife along the river margin. Examples of bank revegetation can be seen on the Eastbank Riverfront.

**Eastbank Riverfront**  
 City of Portland  
 1200 NE Oregon Street  
 Portland, OR 97232  
 Phone: 503.944.1000  
 Website: www.portland.gov/eastbank

## Municipal Terminal No 2

EAST BANK RIVERFRONT



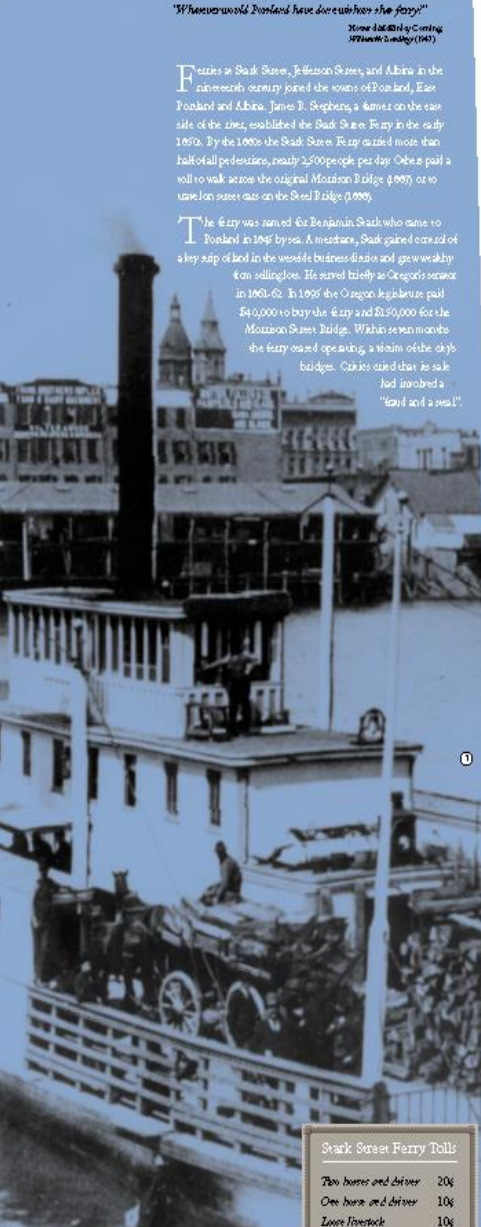
In the 1920s and 1930s, Municipal Terminal No. 2 dominated two city blocks of the waterfront from Washington to Oak Street. A portion of the massive concrete foundation remains visible. A railroad spur once connected to the dock on the east side of the facility. The enormous building held crates of hemp, paper, and machinery coming by ship and moving out into the city by rail, truck and delivery van. To the south by seven major slips divided into the shoreline for handling waste and barges.

Commercial development of the east bank commenced in the 1920s with small shops, bars, factories, docks, and warehouses. East Water Street, a plank roadway, a block back from the river, stood atop pilings sixteen feet high. In time, developers filled the lowlands with rows of wooden, garbage, and discarded building materials. By 1989, several large industries dominated the waterfront: H.A. Hoger's Sawmill and Paper Company, Muelke's Wharves, Standard Iron Company and Wolf & Zwicker Iron Works, a foundry for producing pipes.

**Municipal Terminal No. 2**  
 City of Portland  
 1200 NE Oregon Street  
 Portland, OR 97232  
 Phone: 503.944.1000  
 Website: www.portland.gov/municipal-terminal-no-2

## Stark Street Ferry

EAST BANK RIVERFRONT



"Wherever you find the ferry, you find the city." James H. Haggerty, 1940s  
 James H. Haggerty, 1940s  
 The Stark Street Ferry, between Stark and Albina in the nineteenth century joined the towns of Portland, East Portland and Albina. James H. Haggerty, a farmer on the east side of the river, established the Stark Street Ferry in the early 1850s. By the 1860s the Stark Street Ferry carried more than half a million passengers, nearly 25,000 people per day. Other paid a toll to walk across the original Morrison Bridge (1857) or to use for horse-drawn wagons on the Steel Bridge (1859).  
 The ferry was run by Benjamin Stark who came to Portland in 1847 by sea. A merchant, Stark gained control of a key ship of land in the west's business district and grew wealthy from selling logs. He served briefly as Oregon's senator in 1860-62. In 1895 the Oregon legislature paid \$40,000 to buy the ferry and \$150,000 for the Morrison Street Bridge. Within seven months the ferry ceased operating a chain of the city's bridges. Cakes used that to talk had involved a "land and a sea!"

**Stark Street Ferry Tolls**  
 Two horses and driver 20¢  
 One horse and driver 10¢  
 Loose livestock 10¢  
 Sheep, pigs, and cows on foot 5¢

**Stark Street Ferry**  
 City of Portland  
 1200 NE Oregon Street  
 Portland, OR 97232  
 Phone: 503.944.1000  
 Website: www.portland.gov/stark-street-ferry

## Willamette River Waterfront

EAST BANK RIVERFRONT



**Willamette River Waterfront**  
 City of Portland  
 1200 NE Oregon Street  
 Portland, OR 97232  
 Phone: 503.944.1000  
 Website: www.portland.gov/waterfront



# Interpretive Displays

## Sellwood Bridge



© 2024 Google



Ferryman John Ogden, "Carriage James Lee is in the center, Fred Galus, engineer is at the right." *Portland, Oregon, 1904*

**WHEN THE FIRST SELLWOOD BRIDGE** was built, it put a ferry out of business. From 1904 to 1925, the John F. Caples shuttled hundreds of passengers and vehicles across the river each day. Its old landings can still be seen today: on the east side at the end of Spokane Street, and on the west side near the old Staff-Jennings boat yard.



### PANNING THE DECADES

In Portland's early days, ferries were the only way to cross the Willamette. When the first bridges appeared, boats still had the right-of-way — the bridges were designed to lift or swing out of the way.

Henry Ford's first Model T hit the road in 1908. Within a decade the Portland streets were packed with chugging motorcars. As traffic on the river slowed, traffic above the river exploded. Bridges were more important than ever—and there weren't enough of them.

In 1922, Multnomah County passed a bond measure for a massive project to modernize Portland's interface with the Willamette. The project included three major bridges, one of which was to cross here at Sellwood.

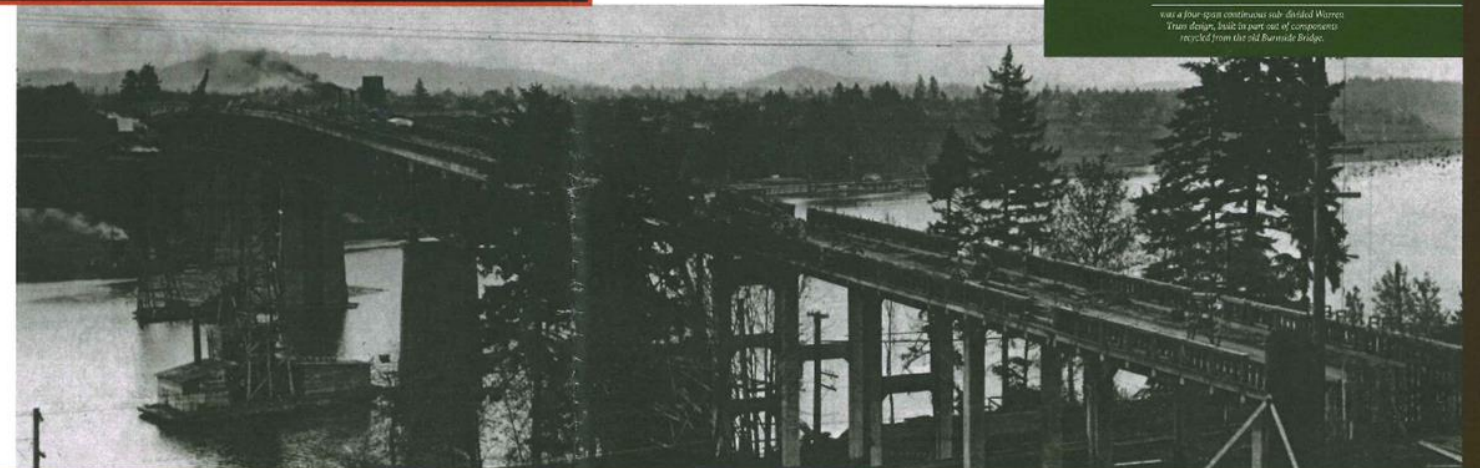
The Sellwood Bridge, completed in 1925, was the first Willamette bridge to be designed almost exclusively for cars. It had two auto lanes and—unusual for this era—no streetcar tracks. Built high enough over the river to allow boats to pass underneath, it was also the first fixed bridge in the city.

#### THE OLD BRIDGE

was a four-span continuous sub-divided Warren Truss design, built in part out of components recycled from the old Burnside Bridge.



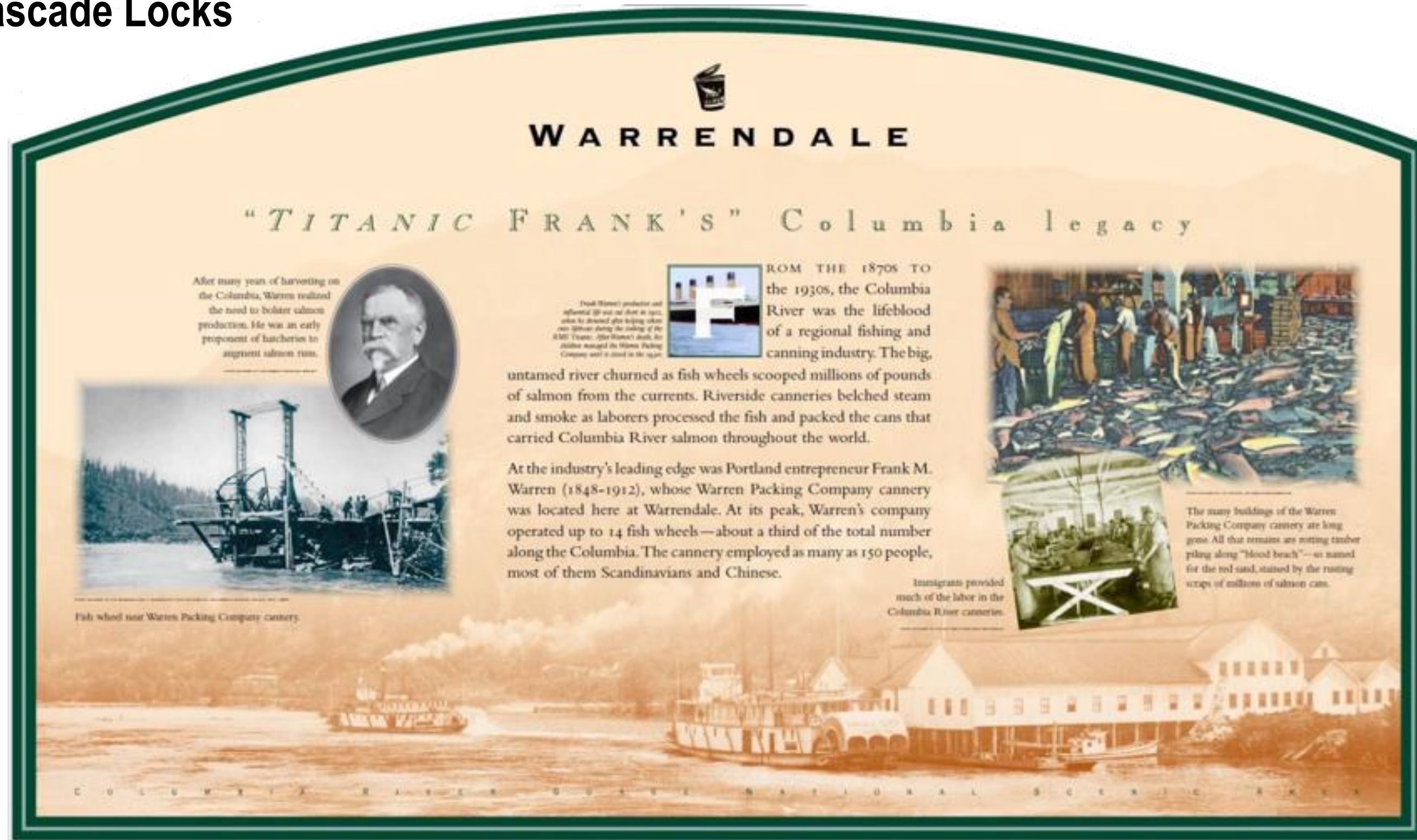
Ticoma Ave, looking east from bridge.





# Interpretive Displays

## Cascade Locks





# Interpretive Displays

## Cascade Locks



# Interpretive Displays

## Potential Contractors

- Noel Design, LLC: <https://noeldesigninterp.com/Signs.aspx>
- EDX Seattle: <https://edxseattle.com/work/>
- Formations: <https://www.formationsinc.com/>
- Suenn Ho Design: <https://www.resolvearchitecture.com/shd>
- Main Street Design: <https://www.mainstreetdesign.com/our-work>
- Sea Reach, Limited: <https://www.seareach.com/home/designs.asp>
- Mayer/Reed: <https://www.mayerreed.com/portfolio/>

## Questions for Advisory Group

- What should the project explore?
- What target audiences should be considered?
- Are there other examples you can point us to?
- What guidelines or formula should the panels follow?
- What are your likes and dislikes?



# Salvage and Reuse

## Programmatic Agreement Guidelines

Salvage  
and Reuse

Multnomah County shall explore options for salvage and reuse of existing features of the Burnside Bridge, including railings, mechanical components, and the operator towers.



# Salvage and Reuse

## Bridge Elements Currently under Consideration

- Bridge Railings and Balustrades
- Operator Houses
- Steel Structural Components
- Mechanical Components
- Name Plate

# Salvage and Reuse

## Existing Railings and Balustrades





# Salvage and Reuse

## Operator Houses





# Salvage and Reuse

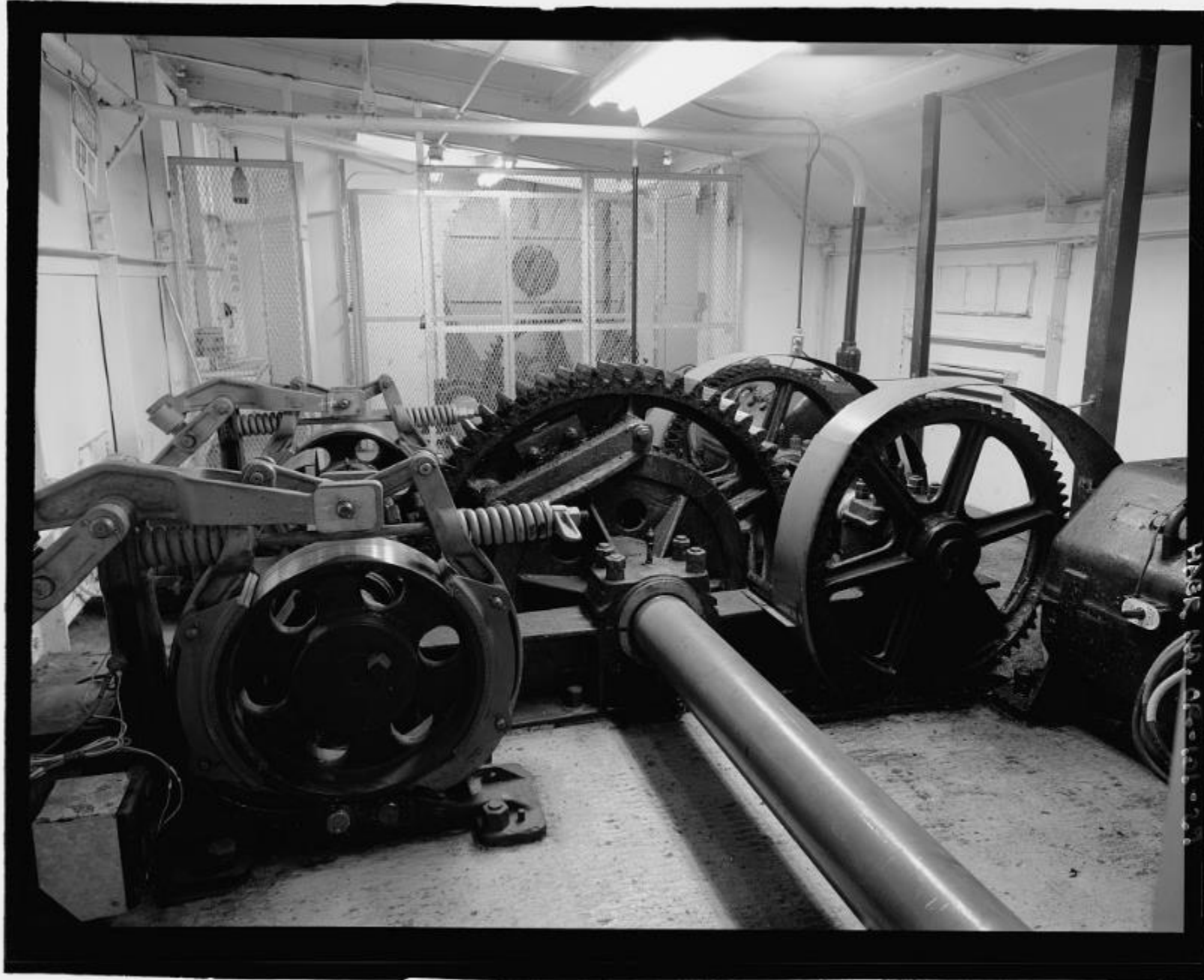
## Steel Structural Components





# Salvage and Reuse

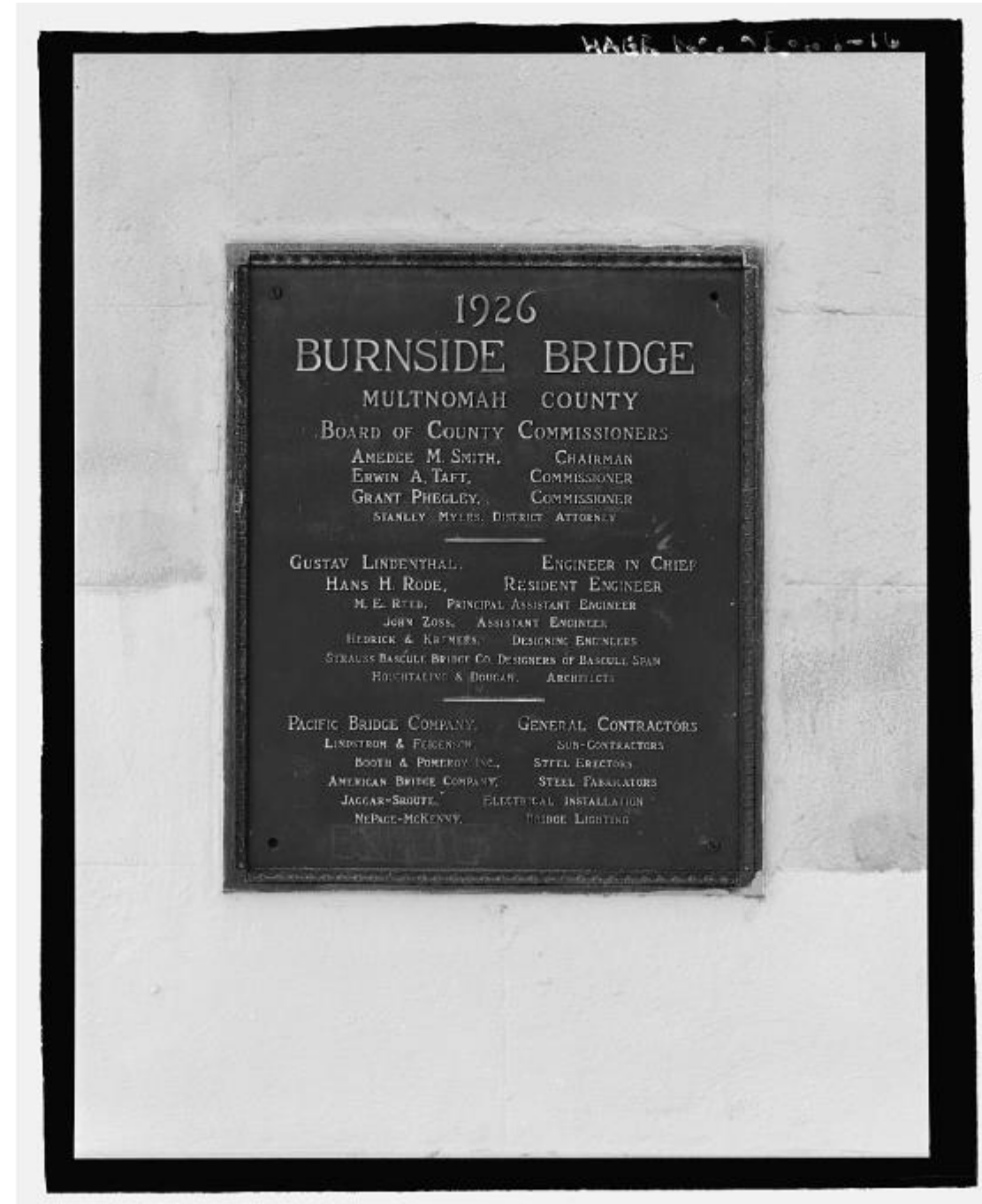
## Mechanical Components





# Salvage and Reuse

## Name Plate





# Existing Example of Salvage

**50,000 Pound Rail Wheels and Tracks on the Broadway Bridge, currently being stored**





# Examples of Salvage and Reuse

## Entry Pylons or Obelisks - 1922 Oregon City Arch Bridge



Ben Coogan, 2021





# Examples of Salvage and Reuse

## Entry Pylon - Bybee Blvd Overcrossing



Hadlow, May 2021



# Examples of Salvage and Reuse

## South Park Bridge - Duwamish River





# Examples of Salvage and Reuse

## South Park Bridge - Duwamish River





# Examples of Salvage and Reuse



"Signal" - Public sculpture for Treasure Island made of 36 tons of steel salvaged from the former east span of the Bay Bridge.



<https://www.signalsf.com/>





# Examples of Salvage and Reuse



## Potential Funding Sources for Artists

**NATIONAL  
ENDOWMENT** for the **ARTS**

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# Salvage and Reuse


## Questions for Advisory Group

- Are there other bridge elements that we should consider salvaging?
- What should we explore when we are considering salvaging and reusing these elements?
- What are your likes and dislikes?



# 3-D Scanning

## Programmatic Agreement Guidelines



3-D  
Scanning

Multnomah County shall make a three-dimensional scan of the Burnside Bridge available to Consulting Parties and the public through the County website and upon request during construction. Upon completion of the Project, Multnomah County shall archive the data in the County's permanent electronic records management system.

# 3-D Scanning

## Examples

### Oregon State University – Silver Falls Lodge scan

- <https://www.opb.org/article/2024/05/04/silver-falls-lodge-3d-mapping/>

Oregon State researchers work to preserve the past with 3D mapping of Silver Falls Lodge



By Kristian Foden-Vencil (OPB)  
May 4, 2024 6 a.m. Updated: May 13, 2024 4:21 p.m.



OSU student and staff fly a 3D mapping drone at Silver Falls State Park, April 24, 2024.  
Kristian Foden-Vencil / OPB



A laser scanner makes a three-dimensional map of Silver Falls Lodge.  
Kristian Foden-Vencil / OPB



# 3-D Scanning

## Examples

- 3-D Laser Scanning of Ironbridge and the surrounding Ironbridge Gorge in Shropshire, England - (3 min 39 sec)



<https://youtu.be/BaT-OpoeqYQ?si=6R2CURMHSyQqeHpg>

- 3-D Scan of The Grand Bridge at Blenheim Palace, England - (47 sec)



<https://youtu.be/6XqNJBBPor0?si=srMtd4VLDAYznCJu>



# 3-D Scanning

## Questions for Advisory Group

- How does the group envision the scan would be used?
- Who is the audience for the scan?
- What are your likes and dislikes?
- What direction should the project pursue?



# National Historic Landmark District

## Programmatic Agreement Guidelines



NHL  
District

Multnomah County shall convene an advisory group for interested Consulting Party members and representatives of Signatories whose purpose is to provide comments on the implementation of the mitigation for the adverse effect to the Burnside Bridge described in Stipulation II and to provide comments on design developments as they relate to the NHL District. The advisory group will be convened no later than six (6) months after the National Environmental Policy Act Record of Decision for the Undertaking is signed. The role of the advisory group will be outlined in a charter established once the group is convened and approved by ODOT and Multnomah County. Multnomah County shall distribute minutes from the advisory group meetings to all Consulting Parties to communicate progress and decisions regarding mitigation actions.

# National Historic Landmark District

- Brief History of the District
- Design Guidelines that Apply to the District
- Role of Historic Landmarks Commission in the Decision-making Process
- Timing of Design Developments for the West Side





# National Historic Landmark District

## Brief History of the District

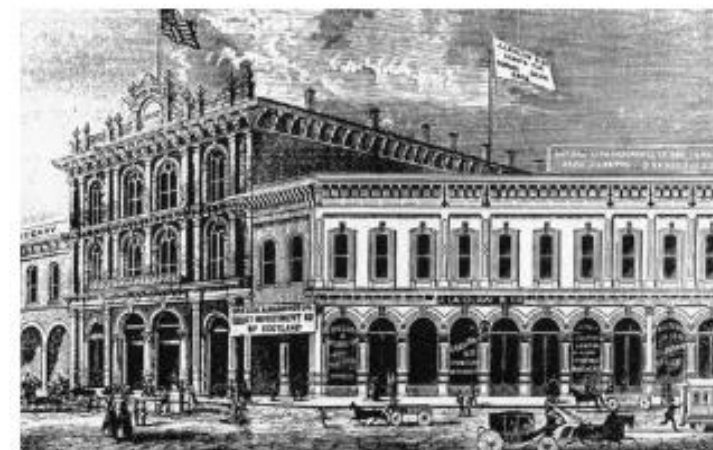
- One of the most impressive historic commercial districts on the West Coast
- Received NHL designation in 1977 by Secretary of the Interior
- Only NHL district in Portland (17 total in Oregon)



Skidmore Fountain looking west up Ankeny to New Market Block, north wing (demolished).



SW Front Avenue looking north from Ash to Burnside, 1931. Oregon Historical Society.



New Market Theater, engraving from West Shore Magazine, 1873.





# National Historic Landmark District

## Brief History of the District

- 20 Block areas of building dating from mid-to-late 19th century
- Where Portland began and first flourished
- High Victorian architectural styles, many featuring cast iron fronts



58 SW 2nd, Richardsonian Romanesque, Left. 235 SW 1st, Italianate, Middle. 205 NW Couch, Commercial, Right.



Blagen Block, 30 NW First Ave



Fechheimer & White Building, 233 SW Naito



# National Historic Landmark District

## Governing Design Guidelines

- Portland Skidmore / Old Town  
Historic District General Guidelines
- Portland Skidmore / Old Town  
Historic District Guidelines for New  
Construction
- Central City Fundamental Design  
Guidelines



# National Historic Landmark District

## Role of Historic Landmarks Commission - Local

- Made up of 7 members
- Maintains and enhances Portland's historic and architectural heritage through Portland City Code Title 33
- Provides design advice through Design Advice Requests (DARs)
- Provides recommendation to City Council on the Type IV Demolition Review (Spring 2025)
- Decides on the Type III Historic Resource Review for the portion of the bridge in the Skidmore / Old Town Historic District (Fall 2025)





# National Historic Landmark District

## Timing of Design Developments for the West Side

- Options for the west side will be shared in September



# National Historic Landmark District



## Questions for Advisory Group

- What views are the Advisory Group most interested in?

## Future Topics

- How does the bridge affect the district?
- What will the separated buildings look like?
- How will this relate to the bridge?





# Questions?



# Next Steps

- **July 12<sup>th</sup> meeting:**
  - Research and planning results
  - More input from Advisory Group
- **Calendar Invitations**
  - 2nd Fridays of the month (Skipping August)
  - July 12
  - September 13
  - October 11 or November 8
- **Materials Website**

<https://www.multco.us/earthquake-ready-burnside-bridge/consulting-parties-advisory-group-meeting-materials>

