Feasibility Study for

ARLINGTON AVENUE
BRIDGES REPLACEMENT

Stakeholder Working Group Meeting #3 | Aesthetic Themes | December 15, 2020
Meeting Purpose

- Discuss aesthetic themes for the project
  - Initial Aesthetic Themes
    - Downtown Streetscape Master Plan
    - Virginia Street Bridge
    - “Family of Bridges” Theme
    - New - Wingfield Park Area
  - SWG-2 Input
- Recommended Bridge Concepts
- Help guide us
  - Which design elements need additional analysis
  - Input and ideas on appearance of the bridges
Meeting Agenda

- Review site history, existing condition, and recommended bridge concepts
- Look at opportunities, constraints, and design goals
- Proposed Aesthetic Elements
  - Theme and Lighting
    - Questions ??
  - Railing and Sidewalk Space
    - Questions ??
  - Surface Texture
    - Questions ??
- Group discussion and consensus
Location Map: Downtown Bridges Reno, Nevada

BOOTH STREET BRIDGE

PROJECT SITE
ARLINGTON AVENUE BRIDGES

VIRGINIA STREET BRIDGE

LAKE STREET BRIDGE

KEYSTONE AVENUE BRIDGE

SIIERA STREET BRIDGE

CENTER STREET BRIDGE
Site History

- **1909** - Lewis Hinckley purchased and developed the land into a relaxing resort-like destination, known as Belle Isle
- **1912** - The river was partially dammed, and footbridge was added.
- **1916** - Owners of the park filed for bankruptcy and the space was acquired by Reno National Bank
- **1920** - Influential banker George Wingfield bought the property and donated it to the City. The island was later named “George Wingfield Park.”
- **1921** - North bridge structure constructed, originally called Chestnut Street Bridge, Nevada’s oldest T-beam bridge
- **1928** - A flood caused substantial damage to the park, with repair help by George Wingfield
- **1925-1980’s** - The Reno Municipal Christmas Tree stood at Wingfield Park

![Belle Isle Map, 1918](image)

![Electric Lights, 1911](image)

![Belle Isle, 1911](image)

![Wingfield Park Postcard](image)
Design Inspiration: City of Trembling Leaves

- **The City of Trembling Leaves**, by Walter Van Tilburg Clark
  - The City of Trembling Leaves is a well-known book about the history and development of Reno
  - Reno was established as a small town on the edge of the mountain range with beautiful trees and wildlife all around
  - The book illustrates the natural beauty of the Reno landscape and highlights Wingfield Park as a leisurely oasis within the City
  - Urbanization and development has changed the landscape of the City within the last century
  - How can the proposed design reconnect to its history and celebrate the natural beauty of the Reno landscape?

Cottonwood Trees in the Nevada Landscape  Cottonwood Tree Leaf  Truckee River through Reno
Existing Conditions Inventory: Booth Street Bridge

SITE PLAN

SINGLE PIER BRIDGE  SMOOTH TEXTURED ABUTMENT WALL  RIP RAP  TEXTURED SOLID CONCRETE BARRIER RAIL  PEDESTRIAN ACCESS

VIEW LOOKING SOUTH

VIEW LOOKING WEST

LIGHTING  SIDEWALK  PEDESTRIAN ACCESS
Existing Conditions Inventory: Arlington Avenue Bridges

Site Plan

NORTHERN BRIDGE SECTION, LOOKING EAST

VIEW OF NORTHERN BRIDGE

SOUTHERN BRIDGE SECTION, LOOKING EAST

VIEW OF SOUTHERN BRIDGE
Existing Conditions Inventory: Arlington Avenue Bridges

NORTHERN BRIDGE SECTION, LOOKING WEST

SOUTHERN BRIDGE SECTION, LOOKING WEST

VIEW OF KAYAK PARK

VIEW OF WILDLIFE
Existing Conditions Inventory: Sierra Street Bridge
### Existing Conditions Inventory: Virginia Street Bridge

<table>
<thead>
<tr>
<th>TEXTURED FLOOD WALL</th>
<th>DECK WIDENED FOR PEDESTRIAN USE</th>
<th>CLEAR SPAN BRIDGE</th>
<th>PEDESTRIAN LIGHTING</th>
<th>ART DECO BRIDGE ACCENT</th>
<th>VEHICULAR RATED INTERIOR GUARDRAIL</th>
<th>TRANSPARENT ART DECO INSPIRED PEDESTRIAN RAILING</th>
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**SITE PLAN**

**VIEW OF BRIDGE**

**RAILING**

**LIGHTING**

**SALVAGED/REPLACED LIGHT FROM HISTORIC BRIDGE**

**BRIDGE ACCENT LIGHTING**

**RAILING ACCENT LIGHTING**

**PEDESTRIAN SCALED LIGHTING**

**DECORATIVE PAVING**
Existing Conditions Inventory: South Center Street Bridge

SITE PLAN

TRANSPARENT ART DECO INSPIRED DECORATIVE RAILING
VEHICULAR RATED DECORATIVE CONCRETE INTERIOR GUARDRAIL
SCORED PAVING
DECK WIDENED FOR PEDESTRIAN USE
PEDESTRIAN SCALE LIGHTS

VIEW LOOKING EAST

VIEW LOOKING WEST

LIGHTING

DECORATIVE RAILING AND GUARDRAIL
Existing Conditions Inventory: Lake Street Bridge

Perspective Looking Southeast

Site Plan

Lighting

Removable Metal Railing
Existing Conditions Inventory: Riverwalk

SITE PLAN

PERSPECTIVE

ARCHITECTURAL FEATURES

RAILING

PEDESTRIAN BRIDGES
Existing Conditions Inventory: Artwork
Clear Span Bridge Concept

**Pros:**
- No obstruction in the river improves flow capacity and boating access
- No pier/surface for tagging

**Cons:**
- Challenges in expanding the sidewalk at midspan for overlook/viewing area
- Depth of structure is deeper than single pier and provides less pedestrian overhead below bridge
Clear Span Bridge Concept
Single Pier CIP Concrete Box Bridge Concept

Pros:
- Pier provides means to support widened overlook/viewing area mid-river
- Shallower bridge depth minimizes impact to roadway profile

Cons:
- Obstruction in river for recreational boating users (although, one less pier than existing bridge).
- Pier wall may become a potential tagging surface
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- Pier provides means to support widened overlook/viewing area mid-river
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Single Pier Bridge Concept
Opportunities and Constraints Map

LEGEND

- Pedestrian Access
- Bicycle Access
- Pedestrian footbridges provide ample pedestrian access from adjacent amenities
- Existing floodwall needs renovation, providing an opportunity to update the former pattern
- Reno Riverwalk termination, bringing foot traffic to Arlington Avenue
- Opportunity to replace existing pedestrian railing to match new bridge aesthetics
- Landscape may require regrading if street elevation is raised; maintain existing trees and add street trees
- Views of Truckee River

1. Park amenities include tennis courts, basketball courts, play equipment, and restrooms attracting visitors of all ages
2. Park amenities include large grass areas, tree-lined pathways, bike and pedestrian access, and river recreation
3. Amphitheater hosts concerts in the park, making this location a premier summer destination
4. Whitewater park includes drop pools, smooth rocks, deep pools, with many access points, attracting many visitors in summer months
5. Existing stone steps are not accessible and poorly designed
6. Existing utility boxes are an eyesore, consider relocating
7. Street is closed for special events, between First/Island, maintain smooth pedestrian traffic flow across.
Design Goals:

Cohesive Design Language

1. Unify the north bridge and south bridge experience with a consistent form language, including the experience on the bridges and viewing the bridges
2. Establish a project theme to unify all the bridge and landscape elements

Enhance Pedestrian Experience

1. Arlington Avenue to act as an urban plaza, using unified materials between sidewalk and street
2. Maintain vantage points of the river and surrounding landscape
3. Enhance pedestrian experience with shade trees, decorative lighting, decorative railing, paving, and sculptural/artistic features

Contextual and Historical Relevance

1. Proposed structural elements will have relevance to the urban context
2. Project shall pay homage to Reno’s history, while representing a new age of bridge development within the downtown core

Innovation and Sustainability

1. Low Impact Development (LID)- Street shall be repaved using permeable pavement, concrete pavers, permeable concrete
2. LED lighting
3. Drought resistant and native trees and plantings
Proposed Aesthetic Elements

- Modern Design Elements, A Melding of Old and New
- Pedestrian Scaled Lighting
- Bridge Accent Lighting
- Under Bridge Lighting
- Transparent, Traffic Rated Bridge Railing
- Maintain Pedestrian Accessibility
- Widen Bridge Deck
- Textured Abutment Walls
- Flood Walls
- Plaza Street
Modern Design Elements: A Melding of Old and New

- Proposed decorative elements should incorporate modern design elements with a nod to the Art Deco historical context.
- Decorative elements will focus on pedestrian lighting, railing design, under-bridge lighting, and sculptural elements.
- Consider applying decorative form liner under bridges and on bridge pilaster and girders.
Pedestrian Scaled Lighting

- Potential for modern pedestrian lighting concept
- Potential for stick lights fixed into bridge pilaster on north and south bridge
- Lighting elements to continue between bridges to create unity
- Incorporate lighting elements into railing
- Lighting along renovated north flood wall to match with existing art deco-style lights
Bridge Accent Lighting

- Potential girder lighting to unify the north and south bridge
- Precast girders provide areas to conceal lights
- Potential bridge pilaster lighting
- Consider lighting protection from flood water, debris and vandalism.
- Consider impacts to aquatic species
Under Bridge Lighting

- Potential under-bridge aesthetic lighting and under-bridge safety/pedestrian lighting
- Consider a lighting concept that can be applied to other bridges in downtown to create a “family” of unified bridges
- Consider aesthetic lighting experience for visitors viewing the bridges and visitors walking along the bridges
- Provide conduit for future bridge artistic lighting
Questions on Theme and Lighting?

▶ Is the general theme ok?
  ▶ Modern design elements with a nod to the Art Deco historical context

▶ Should lighting be included?
  ▶ Pedestrian Scaled, Bridge Accent, Under Bridge
Transparent, Traffic Rated Bridge Railing

- Exterior railing should allow for viewing of the river
- Avoid double railing due to large number of special events
- Potential for decorative concrete railing and decorative steel railing hybrid
- Potential vehicular rated metal guardrail with custom artistic detailing
- Art deco concrete railing exists along northern flood wall, Sierra Street Bridge, and Center Street Bridge
Maintain Pedestrian Accessibility

- Avoid double bridge railing due to large number of special events and need for pedestrian accessibility
- Maintain smooth pedestrian movement across street even if elevation needs to be raised
- Consider planting street trees along Arlington Avenue at 30 ft. O.C., if elevation needs to be raised
- Provide graffiti coating for maintenance/ easy removal
Widen Bridge Deck

- Consider widening bridge deck to allow for greater pedestrian viewing (single pier only)
- Center Street Bridge and Virginia Street Bridge have widened segments
Questions on Railing and Sidewalk Space?

- Smooth Pedestrian Movement
  - Don’t include double railing?
  - Should railing be transparent?
  - Should the bridge deck be widened?
Textured Abutment Walls

- Consider abutment wall with a rich texture to enhance pedestrian and river user experience below the bridge
- Consider cobble texture used elsewhere
Flood Walls

- Flood wall should have consistency between bridges
- Textures, horizontal reveals, open concrete railing, pilasters extended below, and lighting shall be consistent
- Flood wall along south side shall match with cobble wall along Riverwalk
- Consider a narrow planting at bases of walls to soften the height
Plaza Street

- Consider Arlington Avenue ‘Plaza Street’ concept to unify park areas if street between bridges needs to be replaced
- Consider permeable pavers on street and sidewalk to create seamless transition and provide stormwater infiltration
- Sidewalk paving with unique stamp or sandblast that follows theme
Questions on Surface Texture?

- Is the Plaza Street idea appealing?
- Should texture on abutment walls and flood walls be considered?
Group Discussion and Consensus

- Theme and Lighting
- Railing and Sidewalk Space
- Surface Texture
- Additional Ideas
Thank you for Participating!

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