



SARAH MILDRED LONG Bridge Replacement
The Regional River Crossing

JULY 11, 2013 DESIGN WORKSHOP
SARAH MILDRED LONG BRIDGE REPLACEMENT
THE REGIONAL RIVER CROSSING

SUMMARY OF PIER CONCEPT SELECTION RESULTS
JULY 19, 2013

Introduction

With the theme, bridge alignment and structure type established, the design team had begun shaping bridge elements and presented some concepts at the July 11th Workshop. The design team drew inspiration from the natural and built environment near the bridge site to shape the bridge elements. The piers were shaped to compliment the lift towers and the bridge superstructures.

Before shaping the tower, the Design Team presented the inner workings of a typical lift span tower, and how the space requirements of the mechanical elements would provide the basic criteria for determining the tower size.

The inner workings were also presented on a banner, which is shown in Figure 1. With the tower length, width, height and internal core dimensions determined, the team sculpted three tower concepts which are shown in Figure 2.

The participants were also presented tower details for their consideration. Examples of the use of architectural glass block were presented. A stainless steel tower roof concept was proposed, similar to the Penobscot Narrows Bridge Observatory in Bucksport, Maine.

After the presentation, there was time for open discussion and lunch for more one on one discussion. The participants were encouraged to discuss among themselves. Large banners were displayed in the room to assist the community in development of ideas. Following lunch, the open discussion continued.

Summary of Preferences Selected

Voting forms with the three tower concepts were distributed to the participants. Scoring was done on a scale of 1 to 10, with 10 being the highest possible score. The results of the preferences were: Tower Concept 1 with an average score of 6.9 and 52% of the participants scored this with an 8, 9 or 10, Tower Concept 3 with an average score of 6.1 and 29% of the participants scored this with an 8, 9 or 10 and Tower Concept 2 with an average score of 2.7 and 6% of the participants scored this with an 8, 9 or 10. The results of the voting preferences are shown in Figure 3.

Based on participant feedback regarding the tower concepts, the design team will continue working on evolving the tower shapes and will present refinements at the next Stakeholder Meeting.

A separate tower details voting form was provided to gauge the participant's interest in the use of glass block in the tower, aesthetic lighting behind the glass block and a stainless steel tower roof. Scoring was done on the same 1 to 10 scale of as the other form. The results of the preferences were: Glass Block for Tower had an average score of 6.6, Lighting Behind Glass Block had an average score of 6.7 and Stainless Steel Roof of Top of Tower had an average score of 7.9. The results of the voting preferences are shown in Figure 4.



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Figure 1. Inner Workings of the Tower

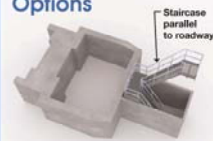
The Inner Workings of the Tower



Lifting and lowering movements of the lift span



Configuration Options



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Figure 2. Tower Concepts Banner

TOWER CONCEPTS

Sculpting of Tower Shapes

CONCEPT 1

Elevation View Drivers' Perspective

CONCEPT 2

Elevation View Drivers' Perspective

CONCEPT 3

Elevation View Drivers' Perspective

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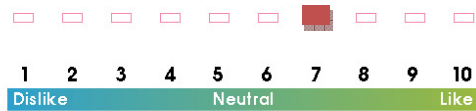
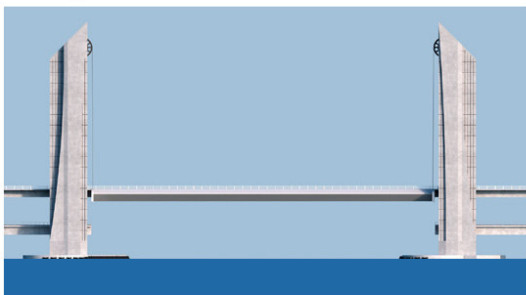
Figure 3. Tower Concept Preference Results

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Tower Concept Preference Form

Using the black pens provided, please fill in completely one red box for each tower to give your preferences. If no box is filled then a 5 will be recorded as Neutral.
NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

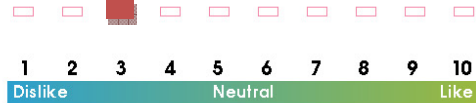
Concept 1



6.9

Comments: _____

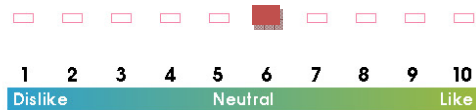
Concept 2



2.7

Comments: _____

Concept 3



6.1

Comments: _____



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Figure 4. Tower Details Preference Results

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NOTE: 1 = Lowest Score (Dislike); 5 = Neutral; 10 = Highest Score (Like).

Glass Block for Tower (Natural light in stairway)



6.6

Comments: _____

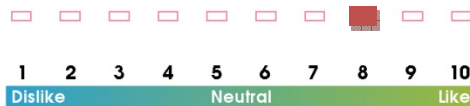
Lighting Behind Glass Block



6.7

Comments: _____

Stainless Steel Roof On Top of Tower



7.9

Comments: _____

Other Comments

