



SARAH MILDRED LONG Bridge Replacement
The Regional River Crossing

**NOVEMBER 20, 2013 STAKEHOLDER MEETING
SARAH MILDRED LONG BRIDGE REPLACEMENT
THE REGIONAL RIVER CROSSING**

SUMMARY OF TOWER SELECTION RESULTS

Introduction

Based on participant feedback received at the July 11th, 2013 Design Workshop, the design team continued evolving the tower shapes and presented refinements at the Stakeholder Meeting on November 20, 2013.

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 presented on a banner, which is shown in Figure 1.

With the tower length, width, height and internal core dimensions determined, the team designed two tower concepts which are shown in Figure 2. Also shown in Figure 2 are three tower top concepts. In response to stakeholder preferences noted at the previous workshops and meetings, the tower top concepts were evolved to provide more visibility for the sheaves located at the top of the towers so that they are seen in action during the bridge operation. Figure 3 shows the three concrete texture concepts for the towers that were presented.

After the presentation, there was time for open discussion. Large banners were displayed in the room to assist the participants in their selection of the preferred tower concepts.

Summary of Preferences Selected

Voting forms with the two tower concepts, three tower top concepts and three concrete texture preferences were distributed to the community 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 Concepts

1. Angular Tower with an average score of 7.0 ✓ **Selected**
2. Curved Tower with an average score of 4.2

Tower Top Concepts

1. Tower Top Concept B with an average score of 6.2 ✓ **Selected**
2. Tower Top Concept A with an average score of 3.8
3. Tower Top Concept C with an average score of 3.5

Concrete Textures

1. Tower Concrete Texture Concept 1 with an average score of 7.6 ✓ **Selected**
2. Tower Concrete Texture Concept 2 with an average score of 5.2
3. Tower Concrete Texture Concept 3 with an average score of 3.8

The results of the voting preferences are shown in Figures 4 and 5.



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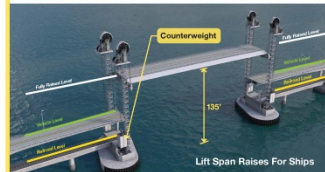
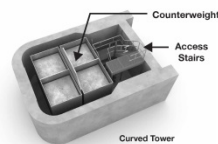
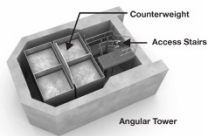
Figure 1. Inner Workings of the Tower Banner

The Inner Workings of the Tower



Lifting and lowering movements of the lift span

Tower Cross-Section Below Window Openings



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Figure 2. Tower Concepts Banner – Sculpting of Tower Shapes and Tower Top Concepts


TOWER CONCEPTS

Sculpting of Tower Shapes


Angular Tower



Drivers' Perspective




View From The Water




Counterweight
Access Stairs

Tower Cross-Section Below Window Openings

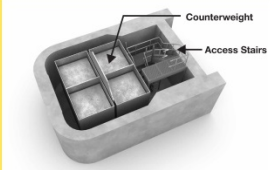
Curved Tower



Drivers' Perspective



View From The Water




Counterweight
Access Stairs


Tower Cross-Section Below Window Openings

Tower Top Concepts


Any Of The Tower Top Concepts Can Be Applied To Either The Angular Or Curved Tower Shape



Concept A




Concept B



Concept C

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Logo for MaineDOT, State of New Hampshire, and Federal Highway Administration.



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Figure 3. Tower Concepts Banner – Concrete and Glass Texture

TOWER CONCEPTS

Concrete and Glass Texture

CONCEPT 1

Drivers' Perspective

View From The Water

CONCEPT 2

Drivers' Perspective

View From The Water

CONCEPT 3

Drivers' Perspective

View From The Water

Glass Concepts

Angular	Curved	Angular	Curved
Glass Block Concept		Patterned Glass Concept	

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Figure 4. Tower Shape and Tower Top Concept Preference Results

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Tower Shape and Tower Top Concept Preference Form

Using the black pens provided, please fill in completely one red box for each pier 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).

Angular Tower



1 2 3 4 5 6 7 8 9 10
 Dislike Neutral Like

7.0
 ✓ Selected

Comments: _____

Curved Tower



1 2 3 4 5 6 7 8 9 10
 Dislike Neutral Like

4.2

Comments: _____

Tower Top Concept A



1 2 3 4 5 6 7 8 9 10
 Dislike Neutral Like

3.8

Comments: _____

Tower Top Concept B



1 2 3 4 5 6 7 8 9 10
 Dislike Neutral Like

6.2

✓ Selected

Comments: _____

Tower Concept Top C



1 2 3 4 5 6 7 8 9 10
 Dislike Neutral Like

3.5

Comments: _____



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Figure 5. Tower Texture Preference Results

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Tower Texture Preference Form

Using the black pens provided, please fill in completely one red box for each pier 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



Comments: _____

7.6
✓ Selected

Concept 2



Comments: _____

5.2

Concept 3



Comments: _____

3.8