



Temporary Bridges

Utilizing a Temporary Structure for
MOT and Value Engineering

February 14th, 2019



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Presentation Goals

- 1.) Specific Scenarios
- 2.) Types of Temporary Structures
- 3.) Advantages
- 4.) Plans & Specs
- 5.) Manufacturers
- 6.) Case Studies

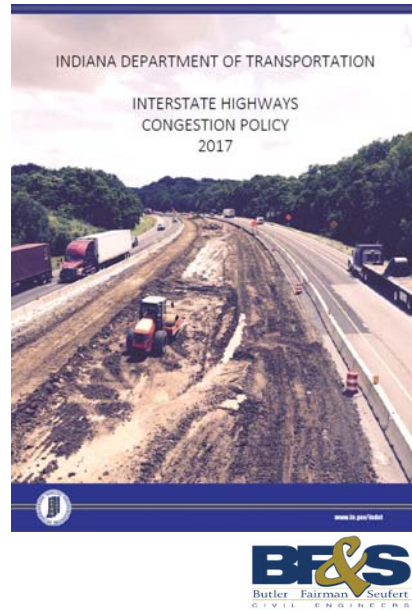


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The Policy...

- I-65: 248 miles
- I-69: 136 miles
- I-70: 153 miles
- I-74: 69 miles
- I-94: 40 miles
- I-465: 60 miles

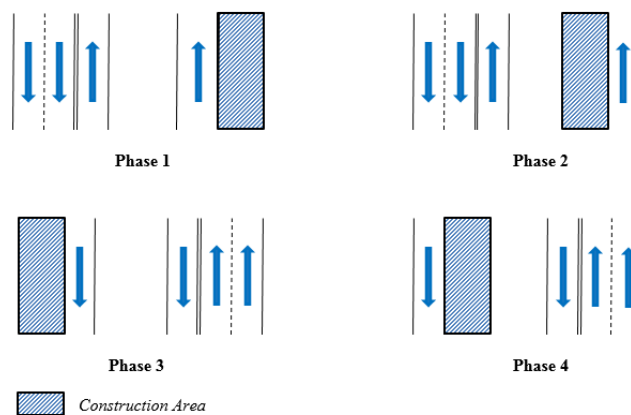
Total = 706 miles



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So what does this mean?

3 and 1 Phasing



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So what does this mean?

2 Lane Options

Phase 0

Phase 1

Phase 2



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Our Main Goal



What happens when we reduce phases



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Types of Temporary Bridges



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Types of Temporary Bridges



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Types of Temporary Bridges

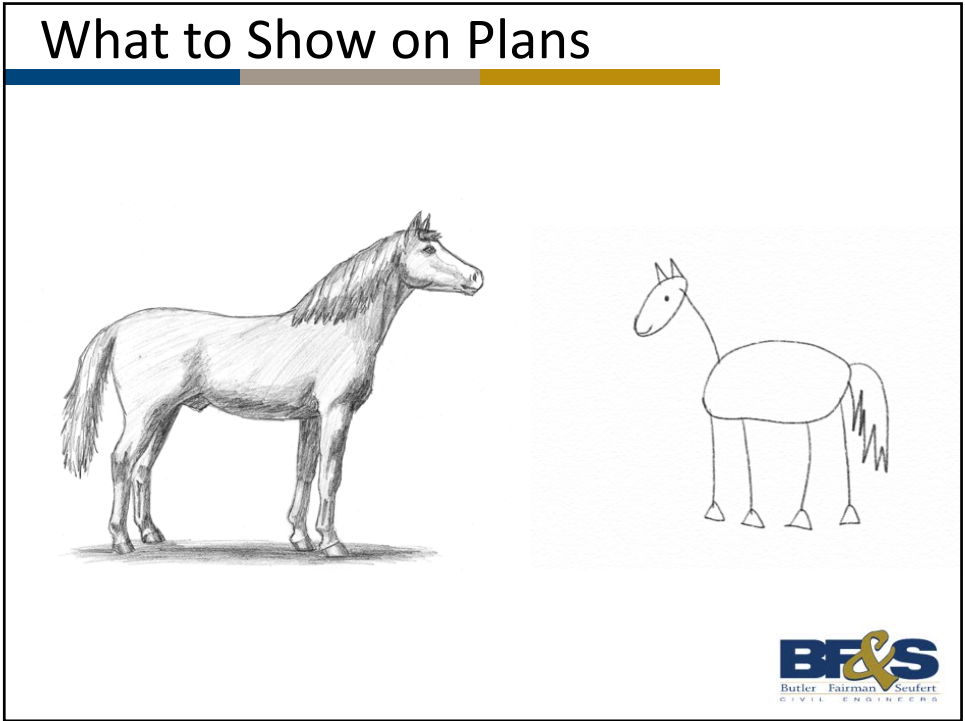


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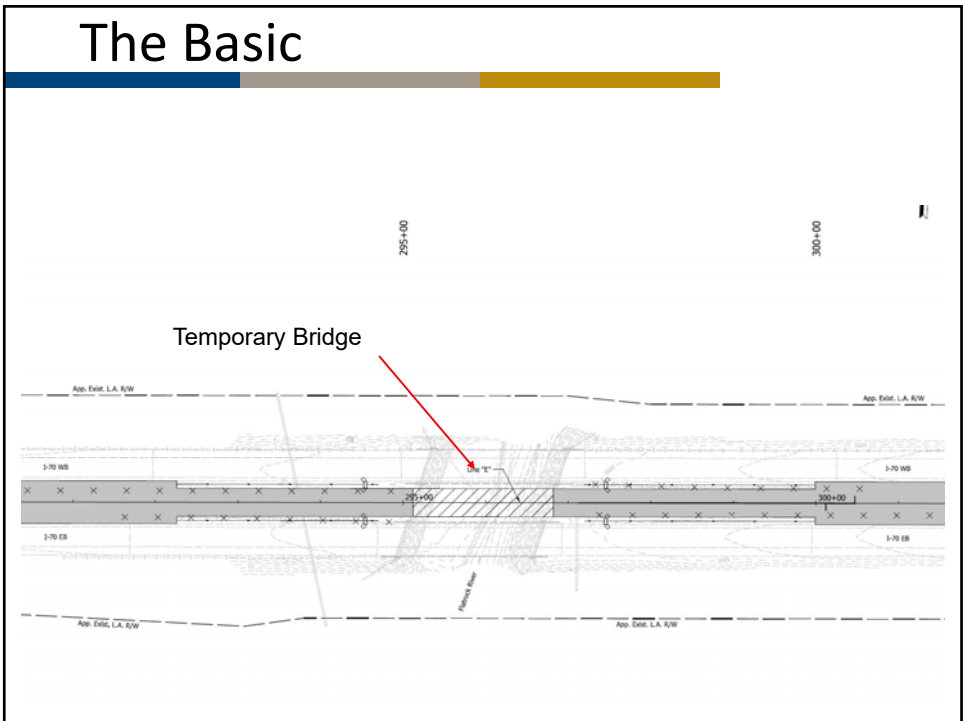
Types of Temporary Bridges



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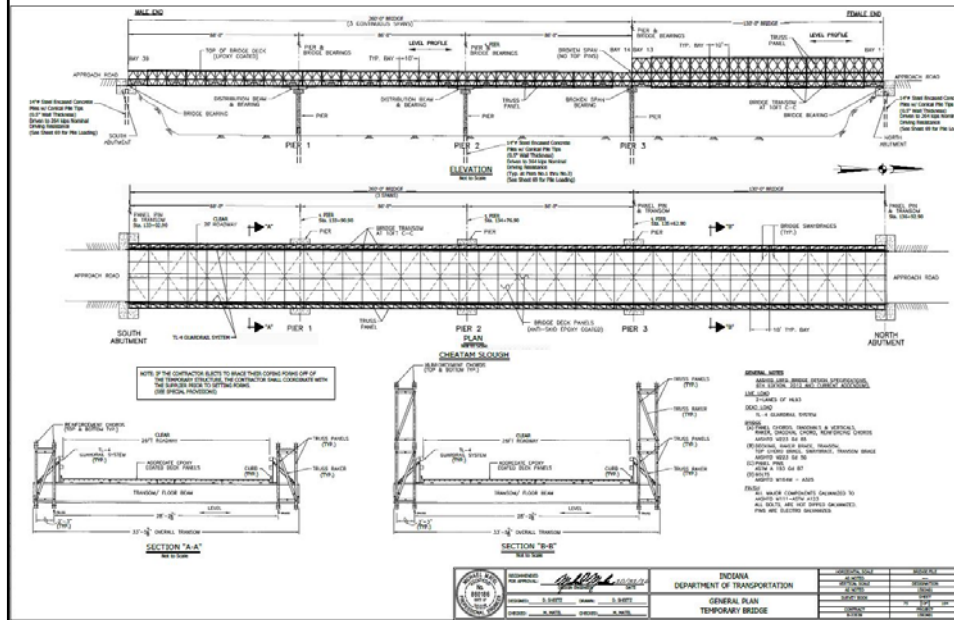


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Maybe Overkill



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What Should we have?

1.) Loads

2.) Spans



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Who are Making These Bridges?

The slide displays six logos for bridge manufacturers and engineers. At the top left is the ACROW BRIDGE logo in a yellow box. To its right is the BAILEY BRIDGES INC. logo, which features a stylized bridge truss structure. Below these are the mabey logo (with a red asterisk) and the U.S. BRIDGE logo. To the right of the U.S. BRIDGE logo is the BIG R BRIDGE logo. At the bottom right is the B&S logo, which includes the text 'Butler Fairman Seufert CIVIL ENGINEERS'.

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The Spec Pitfalls

The illustration depicts a landscape with a green sky, trees, and a yellow ground surface. A blue pond is in the center. A ladder leads down from the ground to a hole in the ground. A small figure is swinging on a swing set. A small figure is also visible in the hole. The B&S logo is in the bottom right corner.

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US 41 Case Study



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US 41 Case Study



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US 41 Case Study

Delivery:	August 23 rd , 2017
First Push:	September 5 th , 2017
Final Push:	September 18 th , 2017
Final Position:	September 29 th , 2017
Ready for Traffic:	October 12 th , 2017



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I-70 over Flatrock

- 1.) Superstructure Replacement
- 2.) 2 lanes required open at all times
- 3.) Temp bridge 1 lump sum
- 4.) No substructure



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I-70 over Flatrock



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We can Span That!



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We can Span That!

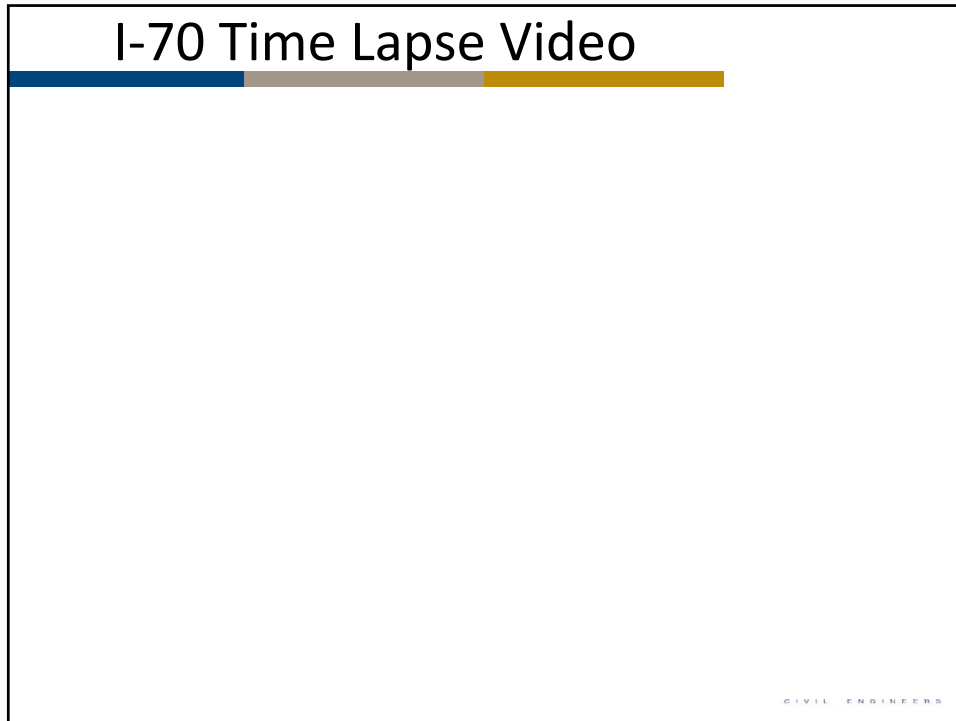


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We can Span That!





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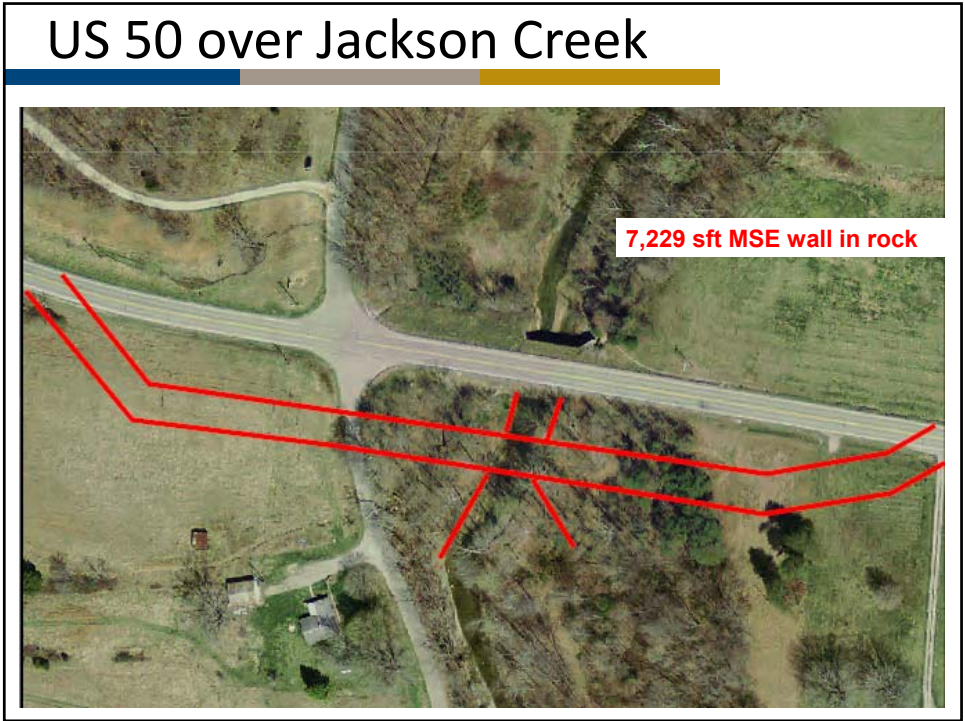
Final Numbers

- Total rental time = 7 months
- Rental cost = \$750,000
- Time to install temp bridge: 2 months
- Bridge returned late November



The slide contains a bulleted list of project statistics. Below the list is the ACROW BRIDGE logo, which consists of the word "ACROW" in bold black letters above the word "BRIDGE" in smaller black letters, all contained within a yellow square. In the bottom right corner, there is the BFS logo, which features the letters "BFS" in a stylized blue font with a yellow ampersand, and the text "Butler Fairman Seufert CIVIL ENGINEERS" below it.

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The Comparison

<ul style="list-style-type: none"> • 1 span 89'-9" • 4, 42" x 49" HYBT or • 4, 36" plate girders • Replace small structure first in late 2017 • MSE Walls 	<ul style="list-style-type: none"> • 1 span 153'-0" • 4, 84" x 49" HYBT • Replace small structure and main structure in same season • Spill through
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Total Cost Savings: \$400,000
Total Runaround Cost: \$900,000

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The Temporary Bridge



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The Temporary Bridge



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The Temporary Bridge



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The Temporary Bridge



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The Temporary Bridge



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A Whole Lot of Concrete



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What do we gain in the end

- Improved Workmanship
- Enhanced safety
- Shorter construction durations
- Cost savings
- Larger work zones



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Any Questions?



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