Milton-Madison Bridge Project

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Purpose and Need

- Structurally Deficient & Functionally Obsolete
- Twenty Foot out-to-out Bridge Deck
- Remaining Service Life of the structure estimated at 10 years
Superstructure Replacement with Minimal Approaches

- Milton Approach re-construction
- Structure No. 1 replacement
- Structure No. 2 replacement
  - Scour Mitigation and Pier Strengthening
  - Superstructure Replacement
- Structure No. 3 replacement
- Construction of Structure No. 4
Proposed Pier Strengthening

1) Drill holes into existing unreinforced caisson

2) Grout dowels into holes and extend above top of caisson

3) Add stem reinforcement

4) Form and cast collar and new cap
Ferry Service during Construction

- No Cost to Users
- Ferries would accommodate vehicles
- Special provisions for medical emergencies
- Capacity to be determined
- Hours of operation to be determined
Design-Build Proposals

September 22, 2010
Five Contractors submitted bids

Project was awarded based on
- Cost to construct project ($102-$127 million)
- Length of bridge closure (10-365 days)
- Date to open bridge to traffic (Sept 2012/May 2013)

Walsh had the lowest bid based on these factors
The Winning Design-Build Team

Walsh Construction, Inc (CONTRACTOR)
Construction firm in La Porte, IN
www.walshgroup.com

Burgess & Niple, Inc. (DESIGNER)
Engineering firm in Columbus, OH and Indianapolis, IN
www.burgessniple.com

Buckland & Taylor (DESIGNER)
Bridge engineering firm in Seattle, WA
www.b-t.com
Proposal for Design Build Process

**Innovative construction process:**
Build a new truss on downstream piers while the existing bridge remains open to traffic

Strengthen existing piers

Remove old truss and slide the new truss onto the strengthened existing piers

Shortest closure periods (approx 10 days)
Design-Build Process

Step 1
- Existing bridge remains open to traffic
- Detour approach ramps are built on Vaughn Dr and KY 36
- Pier strengthening and widening begins
Design-Build Process

Step 2

- Bridge closes to traffic for 5 days
- Approach ramps are connected to existing bridge
- Existing bridge reopens to traffic
- Pier strengthening work continues
Design-Build Process

Step 3

- Downstream bridge piers are constructed
Step 4
- Existing bridge remains open to traffic
- New truss superstructure is erected on downstream piers
- Permanent approaches are built
Design-Build Process

- Downstream bridge is connected to US 421
- Traffic is rerouted onto downstream bridge
Design-Build Process

Step 6
- Existing bridge is demolished
Design-Build Process

Step 7 - Traffic remains on downstream bridge
- Detour approach ramps are removed
- Pier strengthening and widening is completed
Design-Build Process

Step 8

- Downstream bridge closed for 5 days
- Using steel rails and plates, new truss superstructure is moved from downstream piers to its permanent place
- New Milton-Madison Bridge opens to traffic
- Downstream piers are removed
For More Information

Visit the project website

[www.miltonmadisonbridge.com](http://www.miltonmadisonbridge.com)

or contact:

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Questions?