



Missouri FHWA R04 Showcase

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SHRP2 ABC/PBES Implementation
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U.S. Department of Transportation
Federal Highway Administration



Goals for ABC

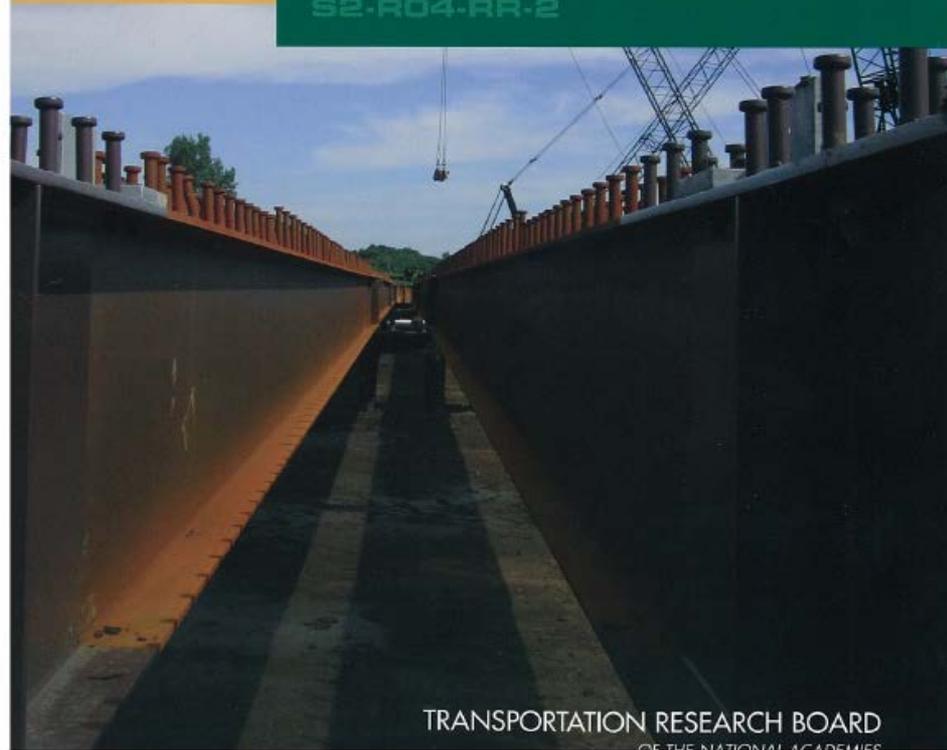
- Enhanced Mobility
- Safety
- Reduced Costs***

Rapid Renewal

- As Light as Possible
- As Simple as Possible
- As Easy to Erect as Possible

Innovative Bridge Designs for Rapid Renewal ABC Toolkit

S2-R04-RR-2



SHRP 2 R04 ABC Toolkit

1

ABC STANDARD DESIGN CONCEPTS

2

ABC ERECTION CONCEPTS

3

ABC DESIGN EXAMPLES

4

ABC DESIGN SPECIFICATIONS (LRFD)

5

ABC CONSTRUCTION SPECIFICATIONS

Expected Outcome: The designer, guided by the sample drawings, details and the set of ABC design examples, will be able to easily complete an ABC design for a routine bridge replacement project.

Transition R04 to DOT's



- Show the success of past projects
 - Showcases
 - Peer to Peer exchanges
- Promote at conferences
 - AASHTO Bridge
 - NSBA
 - PCI
- Next generation R04 implementation projects

Next Generation *Innovative Bridge* *Design Projects*



- Eight projects scattered around the county
 - Gila River Indian Reservation (Arizona)
 - California
 - Kentucky
 - Maine
 - Missouri
 - Rhode Island
 - Wisconsin
 - Michigan

Gila River - Arizona

- Project Delivery – CMGC
- Construction Manager/General Contractor
 - Team the GRIC DOT with the designer and contractor
 - Allows maximum use of contractors means and methods
 - Owner intimately involved in process

Missouri

- ABC and Geosynthetic Reinforced Soil Abutments (GRS)
- Proposed concrete prestressed boxes to sit directly on GRS abutments
 - No abutment body needed
 - No approach slab needed
- One to two week closure currently planned
 - (How are we doing???)

Lessons Learned So Far

- ABC comes in many forms
 - Time savings
 - Safety
 - Quality
 - Reduced environmental impacts
 - Materials (Precast, Galvanized, Carbon fiber)
 - Contracting methods (DBB, DB, A + B, CMGC)

Lessons Learned So Far



- Work with the contractor for solutions
- Be open minded
- Hold a post construction meeting of all parties
 - Contractor
 - Designer
 - DOT
- Track the lessons learned

Conclusions



- The reasons to consider an ABC alternative are as varied as the methods used to deliver an ABC project
- Do not be afraid to experiment with the method and materials
- Seek designer and contractor input before AND after every job for improvements
- DOTs get great publicity from ABC projects

Questions?

