

Introduction to Bridge Design Aids

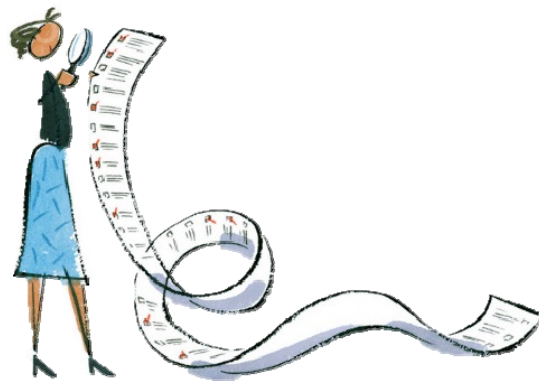
Stephanie Wagner, PE
INDOT Bridge Design

February 7, 2018

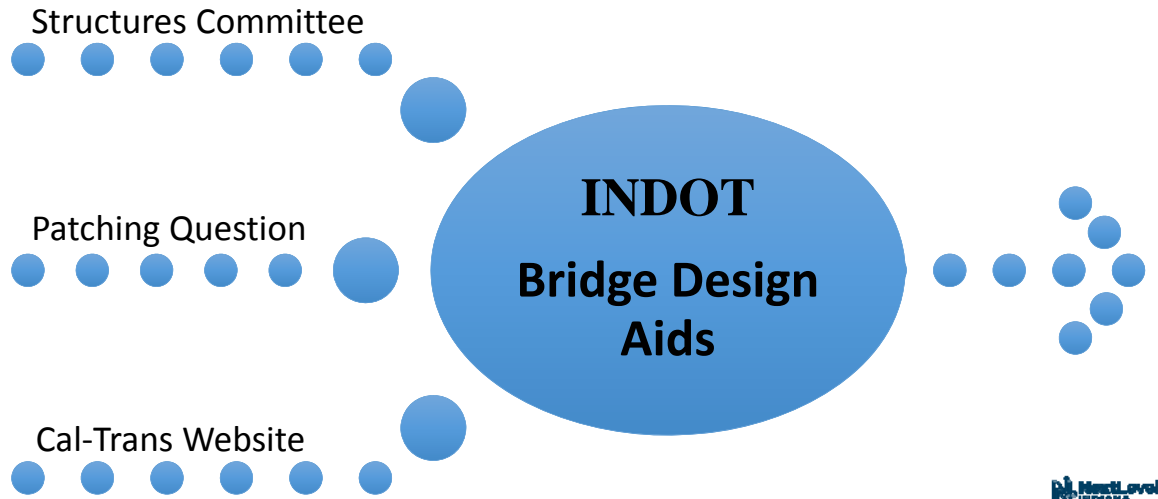


Outline

- History
 - Concept
 - Location and Organization
 - Types of Content
 - Highlights of Initial Rollout
 - The Future...
-
- Brief Overlay Spec Update



A little history...

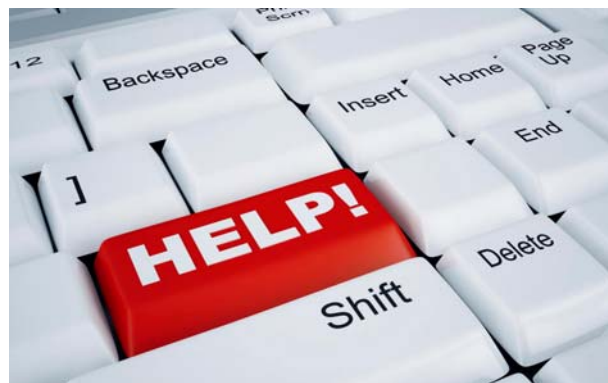


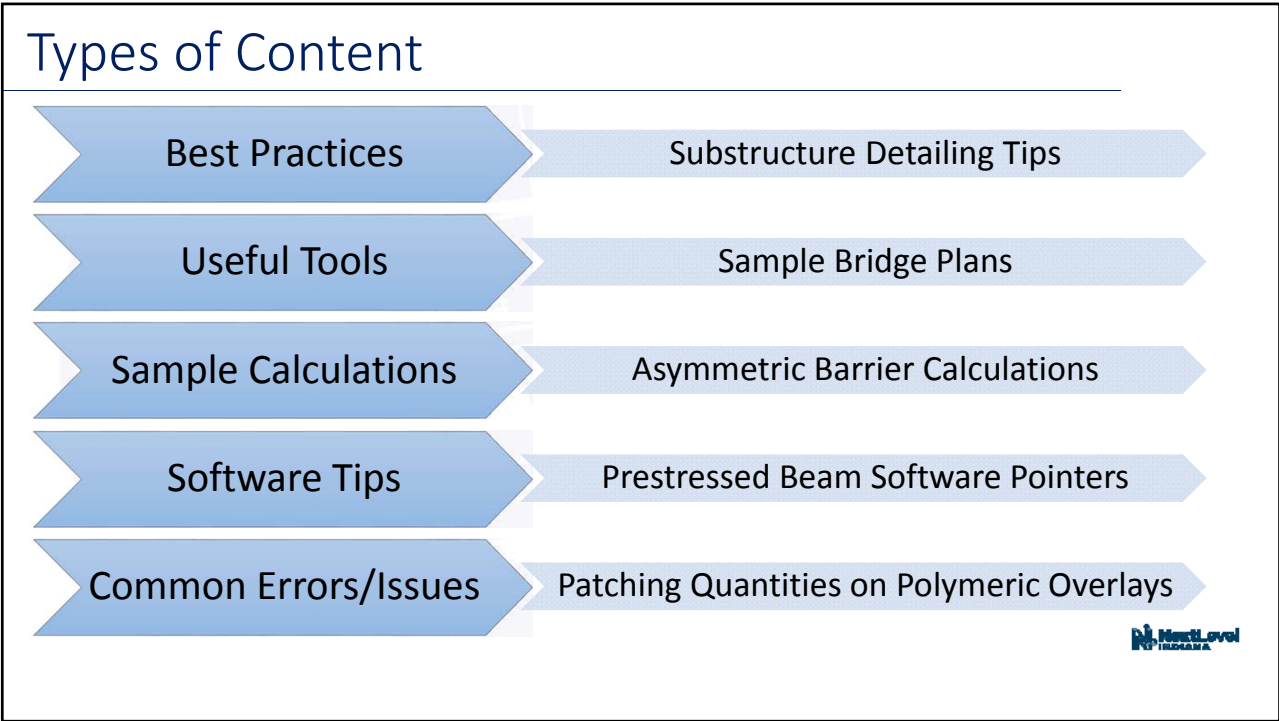
Concept

- **NOT POLICY!**
- Offer help to designers
- Channel for timely guidance

Includes

- Existing "Practice Pointers"
- Other existing guidance
 - i.e. Prestressed Beam Details
- New information





Location

New Bridge Design Webpage

- <http://www.in.gov/indot/3669.htm>
- Organized By Topic

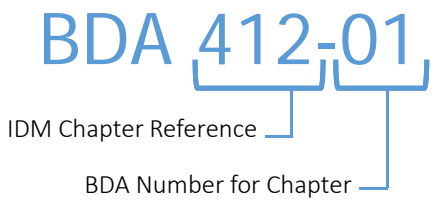
Bridge Design Aids Webpage

- <http://www.in.gov/dot/div/contracts/standards/bridges/BDA.htm>
- Organized By Revision Date

Bridges Now a Direct Link!

Organization

- Numbered by IDM Part 4 Chapter Number
 - Ex. 412-01
- Non-structural Aids start with 100
 - Ex. Sample Bridge Plans
- “S” denotes Software Tips
- Updated BDA’s
same number, new revision date



INDOT | BRIDGE DESIGN AIDS

BDA 412-01 | OCTOBER 5, 2017

PATCHING QUANTITIES FOR POLYMERIC OVERLAY PROJECTS

Reference: IDM 412-3.02 Bridge Deck Preservations Techniques and Considerations

As the Department’s preservation effort has grown and with an increase in available project data, we’ve noticed a trend in our Partial Depth Patching quantities on polym overlay projects.

Based on the available data, the Department has completed 99 polymeric bridge dec in the last 3 years. Of those projects, 34 had no Partial Depth Patching completed in addition, the average ratio of actual patching completed in the field to plan quantity 25%.

Initial Rollout

100-1	Bridge Sample Plans
406-1	Prestressed Design and Detailing Tips
406-2	Prestressed Beam DGN’s
406-S	Prestressed Software Pointers
407-S	Steel Software Pointers
409-01	Substructure Detailing Tips
410-01	Asymmetric Barriers
412-01	Patch Quantities for Polymeric Overlays
412-02	Rigid Overlay Materials



The future of BDA's

- New/Revised BDA's straight to web
- Notifications in monthly email to Design Consultants List Serve

- Please **help** us, **help** you!

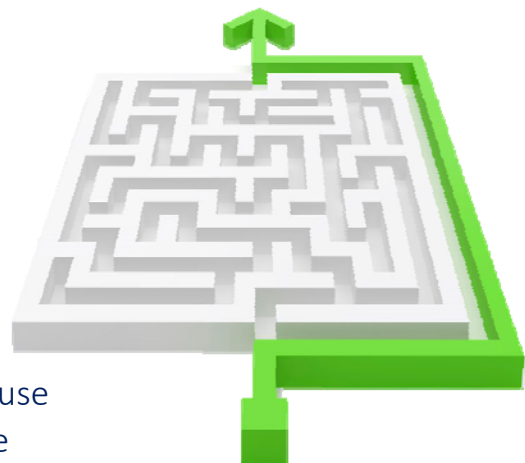
- Questions
- Comments
- Errors
- Ideas

Send to: BridgeDesignOffice@indot.in.gov



Overlay Specification Updates

- Combines:
 - Current Std. Spec. Section 722
 - Microsilica RSP: 736-B-104
 - LMC and Microsilica as optional bid items (BDA 412-02 for directions)
 - Hydrodemolition USP
- Adds Latex Modified Concrete – Very Early Strength (LMC-VEs)
 - Must be approved in the design phase for use
 - Requires a QCP and the contractor to have past experience



Overlay Specification Updates (con't)

- Tightens fog misting requirements
- Longitudinal grooving instead of tining
- Updates cracking limits which will trigger further investigation
- Updates to curing times



Questions or  **?**

Stephanie Wagner, P.E.
sjwagner@indot.in.gov
317-233-2095

 All Next Level