INDOT Bridge Design Policy Updates

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Plan Review Evaluation Scoring

- Evaluation Scoring System Refinement Status
  - Bridge Evaluation System Initial Draft - Complete
  - Road Evaluation System Initial Draft - In Process
  - Next Steps: Industry / Agency Comments on Initial Drafts
- Proposed Model
  - Binary System With Checklist Based Review and Weighted Scores
- Rationale for Proposed Revisions
  - Increased transparency
  - Reduced subjectivity
- Plan Review Process / Personnel

Design-Build Considerations

- Responsibility of Engineer-Of-Record
  - Pre-Letting Design
    - Ensure Design Concepts comply with AASHTO Bridge Design Specifications and Indiana Design Manual Requirements
  - Post-Letting Design
    - Constructability issues should be addressed within the parameters of the Indiana Design Manual
    - When exceptions must be taken to standard policy, detailed design is required to be submitted to the Bridge Design Office for approval

Bridge Design Webpage Updates

- INDOT Bridge Design Webpage Reference Material
  - Not Formal Policy
  - Support Good Engineering Judgement
    - Web-links to other State DOT design information
    - Design examples
    - FHWA Reference materials
  - Bridge Design Aids
    - Formal INDOT guidance / not policy

Bridge Design Webpage Updates

BRIDGE DESIGN AND LOAD RATING

The Bridge Design Office is responsible for the design of new, replacement and rehabilitated bridges, bridge plan review and bridge load rating.

General Information

Structure Size & Type

Load Analysis & Application

Bridge Deck

Reinforced-Concrete Structures

Prestressed-Concrete Structure

Steel Structure

Foundation

Abutment, Bent, Pier & Bearing

Earth-Retaining System

Precast, Prefabricated Structure

Seismic

Accelerated Bridge Design

Bridge Aesthetics

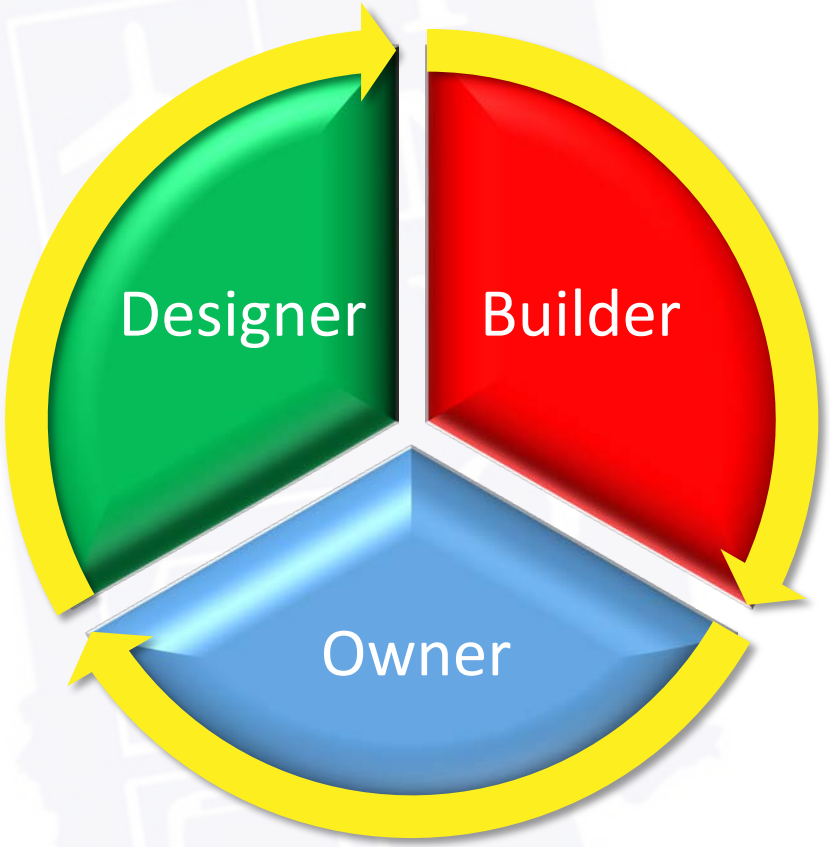
Bridge Load Rating

NextLevel INDIANA

Three Sided Structures

- Shop Drawing Review
  - Engineer Of Record Responsibilities
    - Ensure fabrication plan meets Specifications
      - Precast footing closure pours required (Standard Specification 723.09)
      - *“Where a precast footing is utilized, a 4 in. layer of coarse aggregate No. 53 in accordance with 301 shall be placed under the full width of the footing. Precast footings shall be made into a continuous strip footing by the use of closure pours between the precast units. Closure pours shall be as detailed in the working drawings and shall be designed to accommodate the design loads.”*
    - Evaluate constructability versus design considerations
    - Notify Coordinator 8 that Load Rating needs to be completed

Collaborative Balance



Integrity

Collaboration

Respect

Miscellaneous Guidance

- Revised Memo: LRFD Code Version 8: Stage 2 Submission on or after August 1, 2018

- Micro-Silica Overlays can be shown on the General Plan as an alternate to Latex Modified Overlays.
  - Current RSP available for Micro-Silica Overlays
  - Allows Contractor to choose their preferred material

- Very-Early Strength LMC Overlays are currently being specified
  - Can consider in situations to mitigate expensive crossovers

- Temporary Bridge Maintenance of Traffic Layout

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2018 Bridge Design Initiatives

- Plan Review: Evaluate People, Processes, and Guidance
- Evaluate Tracings Documents and Forms
- Preventive Maintenance Project Plan Development

QUESTIONS?