INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 232-6601
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Michael R. Pence, Governor
Karl B. Browning, Commissioner

SR 46 BRIDGE OVER THE EEL RIVER
PUBLIC MEETING
January 29, 2015

Welcome!

Thank you for attending the public meeting this evening. We hope that you find it informative and that you use it as an opportunity to share your opinions regarding the project.

The bridge carrying SR 46 over the Eel River is severely deteriorated and must be improved. Twice in the last four years it has required temporary closure so that repairs could be made. INDOT regularly inspects the bridge and it is safe to use, but a more permanent solution is needed soon.

INDOT, the Federal Highway Administration (FHWA), and the consultant team have evaluated a wide range of options ranging from rehabilitation to replacement. Due to the design of the bridge, it would be cost-prohibitive to rehabilitate the bridge to carry the size and weight of trucks that need to use SR 46. As a result, INDOT and FHWA have determined that a new bridge is needed.

Because the bridge is listed on the National Register of Historic Places and was identified as a "Select" bridge in the Indiana Historic Bridge Inventory completed in 2009, INDOT is obligated to find a new use for the existing bridge. Two appropriate options remain:

- Rehabilitate the existing bridge at its existing location for use as a park, trail, or other public use (Alternative 4)
- Rehabilitate the bridge and relocate it to another location in the State for a similar use (Alternative 5)

Both of these alternatives would provide a new bridge to safely carry SR 46 over the Eel River for several generations and minimize impacts during construction.

The purpose of tonight's meeting is to provide the community with an overview of the project and to gather input regarding the most appropriate re-use for the existing bridge once a new bridge is built to carry traffic on SR 46. INDOT and FHWA are seeking an organization (public or private) that will put the bridge to public use and take responsibility for its upkeep. Specifically, the following is required:

1. The bridge must be put to a public use (park, pier, trail, etc.);
2. The organization must be willing to sign an agreement to take responsibility for the bridge for a minimum of 25 years, with the expectation that it would be maintained beyond that; and
3. The organization must make a firm commitment to sign that agreement within 60 days so that the project can move forward promptly.

There are several ways you can provide comments:

1. Participate during the public comment session following the presentation.
2. Complete one of the comment forms (available at the sign-in table) and return it to any of the INDOT representatives attending the public meeting.

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3. Mail your comments to: S.R. 46-Eel River Project, c/o Parsons, 101 West Ohio Street, Suite 2121, Indianapolis, Indiana 46204; FAX (317) 616-1033. **INDOT respectfully requests comments be submitted by Friday, March 6, 2015.**
4. Comments may be e-mailed to Parsons (INDOT's consultant) at: daniel.prevost@parsons.com.

All public comments submitted during the comment session or during the public comment period will be given full consideration by the INDOT project team as part of the decision making process.

Rickie Clark, INDOT Office of Public Involvement
rclark@indot.in.gov (317) 232-6601

SR 46 Bridge Over the Eel River

Indiana Department of Transportation

PARSONS

State Road 46 Bridge over the Eel River

Bowling Green Community Building

Thursday, January 29, 2015

Welcome

- **Meeting Purpose**
  - Overview of project and alternatives
  - Gather public input
- **Project Team**
  - FHWA
  - INDOT
  - Consultant Team

Presentation Outline

- **Project Overview and History**
- **Section 106 and Historic Bridge Process**
- **Project Alternatives**
- **Schedule**

Project Overview and History

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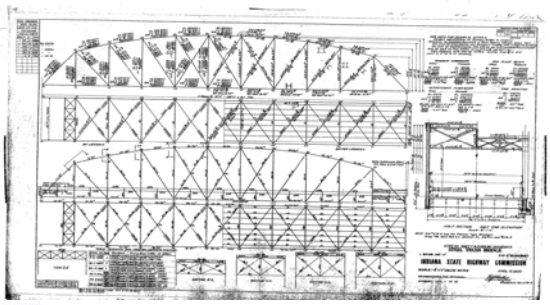
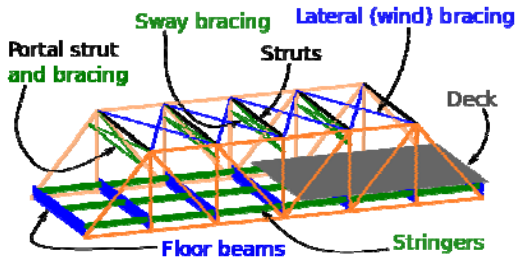
Project Overview and History

Original Design



Truss Bridge Terminology

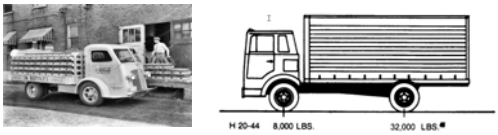


Truss Bridge Terminology

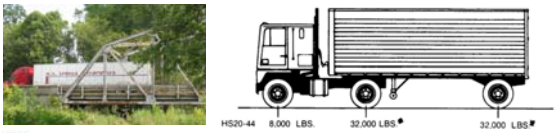
Gusset Plate

Design Loads

1934 Design Truck



2015 Design Truck



Bridge Inspection

- **Inspection Frequency (minimum)**
  - All bridges – every 2 years (FHWA requirement)
  - Fracture Critical Bridges – every year (INDOT requirement)
- **Fracture-Critical**
  - A bridge that has non-redundant features
  - If those key supports fail, the bridge would be in danger of collapse.
  - This does not mean the bridge in inherently unsafe, only that there is a lack of redundancy in its design.

Recent Inspection History

- **2011 Closure, Detour and Repair**
  - Failed gusset plates
  - Closed for 1 month for repair
- **2012 Closure, Detour and Repair**
  - Superstructure at risk
  - Closed for 3 months for repair
  - Repair Service Life: minimum 5 years

Current Condition

Damaged Sway Bracing

Current Condition

Connection Plate

Current Condition

Interior Gusset Plate

Current Condition

Interior Gusset Plate

Current Condition

Lateral Bracing

Current Condition

Truss Vertical

Current Condition

Rusting on Chord

Current Condition

West span of bridge, looking north

Current Condition

SR 46 bridge during 4/19/2013 flood event, looking northeast

Purpose and Need

- **Need for the Project:** Advanced deterioration, section loss, and fatigue affecting critical load-bearing components of this fracture critical bridge
- **Project Purpose:** To provide a safe and structurally sufficient bridge

Purpose and Need

- **Other desired outcomes:**
  - Hydraulic improvements/scour countermeasures
  - Standard lane widths/shoulders
  - Improved intersection at CR 475 East
  - Standard guardrail
  - Minimization of closures for construction, inspection, or repair

SR 46 Bridge is Historic

- **Listed in the National Register of Historic Places**
- **Significant under Criterion A "for its association with events in the settlement and economic development of Clay County, Indiana"**

Section 106 Process

- **National Historic Preservation Act (1966)**
  - Section 106: Federal agency must take into account the effects of the undertaking on historic properties (National Register of Historic Places eligible or listed)
  - Provide Advisory Council on Historic Preservation the opportunity to consult

Historic Bridges in Indiana

- **Modified Section 106 consultation process**
- **All historic bridges in Indiana categorized as Select or Non-Select**
- **Select Bridges: "most suitable for preservation and are excellent examples of a given type of historic bridge"**
- **FHWA will not participate in the demolition of a Select Bridge**
- **Follow procedures for each type outlined in the Programmatic Agreement**

SR 46 Bridge is "Select"

- **Historic Bridge Inventory lists the bridge as "Select" and appropriate for "Non-Vehicular Use"**

Alternatives Analysis

1. **No Build**
2. **Rehab for continued vehicular use**
3. **Rehab for continued vehicular use/one-way pair**
4. **Bypass/non-vehicular use**
5. **Bridge Replacement/Relocation of Historic Bridge**
   - 5A – Replacement on existing alignment, full detour
   - 5B-N – Replacement on existing alignment, temp bridge to the North
   - 5B-S – Replacement on existing alignment, temp bridge to the South
   - 5C-N – Replacement on new alignment to the North
   - 5C-S – Replacement on new alignment to the South

Alternative 1

- **Alternative 1 – No Build**
  - Would make no improvements
  - 2012 repair expected to last 5+ years (INDOT monitoring)
  - Likely closed in 2017 or later
- **INDOT and FHWA have determined that these alternatives would not meet the project's purpose and need**

Alternatives 2 and 3

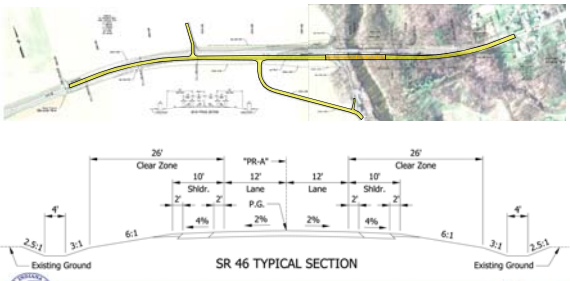
Alternative 2 – Rehab for continued vehicular use

Alternative 3 – Rehab for continued vehicular use/one-way pair

- **Both would continue vehicular use**
  - *Possible* to rehabilitate the bridge
  - *Cost-prohibitive* to rehabilitate the bridge to carry current standard loads
- **INDOT and FHWA have determined that these alternatives would not meet the project's purpose and need**

Alternative 4

Alternative 4 – Bypass / Non-Vehicular Use



Alternative 4

Alternative 4

Alternative 4

- **New Bridge**
  - Immediately south of existing bridge
- **Two lanes of traffic maintained during construction**
- **Existing Bridge**
  - Rehabilitation for pedestrian use
  - Less intensive repairs than rehab for vehicle use
  - Rehabilitation effective for 25+ years
- **Total Cost: $10,342,000**

Alternative 4

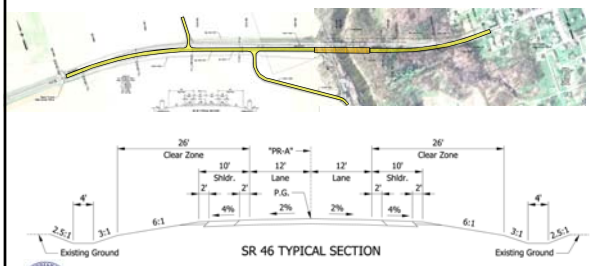
- **Purpose and Need**
  - ✓ Structural capacity
- **Other Desired Outcomes**
  - ✗ Hydraulic improvements
  - ✓ Standard lane widths/shoulders
  - ✓ Improved intersection at CR 475 East
  - ✓ Standard guardrail
  - ✓ Minimization of closures for construction, inspection, or repair

Alternative 4

- **Hydraulic Issues**
  - West Abutment Location
    - New bridge abutment ideally moved further west
    - If existing bridge remains, the new abutment would be required to be parallel to the existing one
    - Subject to future scour issues requiring maintenance
  - Not practical to address freeboard deficiency
- **Issues are not insurmountable, but would increase future maintenance requirements**

Alternative 5C-S

Alternative 5C-S – Bridge Replacement on New Alignment to the South



Alternative 5C-S

- **New Bridge**
  - Immediately south of existing bridge
  - Properly aligned with and sized for the channel
- **Two lanes of traffic maintained during construction**
- **Existing Bridge Relocated**
- **Cost: $9,745,000**

Alternative 5C-S

- **Purpose and Need**
  - ✓Structural capacity
- **Other Desired Outcomes**
  - ✓Hydraulic improvements
  - ✓Standard lane widths/shoulders
  - ✓Improved intersection at CR 475 East
  - ✓Standard guardrail
  - ✓Minimization of closures for construction, inspection, or repair

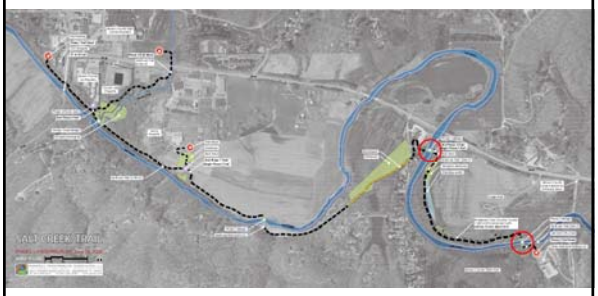
Alternatives Summary

	Alternative 4	Alternative 5C-S
Meets Purpose and Need	Yes	Yes
Other Desired Outcomes	Yes, except hydraulics	Yes
Cost	$10,342,000	$9,745,000
Existing Bridge	Pedestrian Use – Existing Location	Pedestrian Use – Alternate Location

Pedestrian Bridge Consultation

- **INDOT Project Manager contacted Clay County in 2010**
- **Clay County was not interested in keeping the bridge or moving it to a park or trail**
- **INDOT contacted IDNR Recreational Trails Program to identify alternate location**
- **Three organizations expressed interest**
- **Salt Creek Trail (Brown County) determined best option**

Salt Creek Trail



Consulting Parties

- **December 2014 Consulting Party Meeting**
- **Interest in keeping bridge in existing location or elsewhere in Clay County**
- **Previous coordination with Clay County was more than 4 years ago**
- **Additional outreach appropriate**

INDOT-FHWA Goals

- **Agree with preference for location in Clay County (existing or other)**
- **Bridge must be put to public use (park, trail, etc.)**
- **Project must move forward promptly**

Requirements

- **In order for Alternative 4 or 5C-S to be considered prudent, FHWA has determined the following requirements must be met:**
  1. Public use of bridge
  2. Public or Private Organization willing to take responsibility of the bridge for a minimum of 25 years, with expectation of longer-term commitment
  3. Firm commitment within 60 days of intent to sign an agreement and demonstrate financial capacity

Financial Requirements

- **INDOT will rehabilitate the Existing Bridge to pedestrian standards**
  - Replacement of deficient members
  - New deck
  - New paint
  - Anticipated life: 25+ years
- **Requirements**
  - Minimal repairs may be required
  - Routine inspections

Schedule

March 30, 2015	Deadline for commitment to take ownership
Spring/Summer 2015	Preliminary engineering/environmental review
Summer 2015	Public Hearing
Fall 2015-Summer 2016	Land acquisition/final design
October 2016	Construction letting
December 2017	New bridge open to traffic
July 2018	Existing bridge rehabilitated (and relocated, if relevant)

Thank You

- **Ways to contact the project team**
  - **Comment forms**
  - **Email/Phone**
- **Thank you for attending**

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