EXPERIENCED TEAM

WSP | Parsons Brinckerhoff has assembled a proven design team to successfully complete each of the requirements listed in the RFP. Our team has extensive experience with bridge inspections, Engineers Report, life cycle analysis, hydraulic analysis, and environmental planning and permitting. This team combines the local knowledge and technical expertise to layout the most efficient design elements as well as provide the management capability to successfully deliver the project.

| BRIDGE INSPECTION & SCOPING | With Hanson Professional Services as a partner, we are able to provide INDOT with two highly experienced Bridge Inspection teams. This allows us to provide a detailed report that carefully considers replacement alternatives. |
| ENVIRONMENTAL | This bridge is classified as a non-select historic bridge over a scenic waterway and our environmental team has looked at the site and made a preliminary determination of the environmental activities required and the permitting requirements. |
| HYDRAULIC ANALYSIS | Our hydraulics group will lead the effort for the scour analysis of the existing bridge piers, and also work with the environmental group in developing all required permits for construction. |
| BRIDGE DESIGN | Our bridge group has had recent experience on several Indiana projects that involve the rehabilitation or replacement of steel truss bridges similar to this structure and we are ready to apply that experience to this project. |

LEADERSHIP

Our team’s proposed Project Manager (PM) Charles Boltz, a structural engineer with a diverse engineering background, will bring a well-rounded perspective to the design and layout of this project. Experience being the PM on projects both roadway and bridge oriented provides Charles an understanding of the communication that is required between each discipline in order to deliver the best product possible to INDOT. Having a deep bench and multiple design teams under one overall PM will provide a greater opportunity to serve the LaPorte District and make certain that we are available for you, when you need us. Charles has been working with the LaPorte office to complete several bridge rehabilitation projects which should reassure INDOT that he is very familiar with the local district procedures.

We are excited for this opportunity and look forward to working with you.

Respectfully Submitted,

Shelby A. Swango, PE
Area Manager-Vice President

IDENTIFICATION

FIRM NAME
Parsons Brinckerhoff, Inc.*

OFFICE LOCATION
115 West Washington Street
Suite 1270S
Indianapolis, Indiana 46204

AUTHORIZED NEGOTIATOR
Shelby A. Swango, PE
Vice President
317.287.3413
swangos@pbworld.com

*PLEASE NOTE: WSP | Parsons Brinckerhoff will unite under a single WSP brand worldwide effective May 2017. As part of that unification, Parsons Brinckerhoff, Inc. will formally change its name. No other aspects of this proposal or the capabilities of the company will change. The Federal Tax ID and insurance information will also remain the same. We will provide you formal notice and documentation once the corporate name change is effective and work with you to update any records as needed.
KEY STAFF

INDOT LAPORTE DISTRICT
PROJECT MANAGER
Charles Boltz, PE

QA/QC
Dandi Prasad, PE

INDOT LAPORTE DISTRICT
PROJECT MANAGER
Charles Boltz, PE

QA/QC
Dandi Prasad, PE

PRINCIPAL-IN-CHARGE
Shelby Swango, PE

PROJECT MANAGER
Charles Boltz, PE

QA/QC
Dandi Prasad, PE

PRINCIPAL-IN-CHARGE
Shelby Swango, PE

PROJECT MANAGER
Charles Boltz, PE

QA/QC
Dandi Prasad, PE

KEY STAFF

ENVIROMENTAL DOCUMENT PREPARATION
Nadeem Siddiqi, PE [NS]
Charles Wahl [NS]

WATERWAY PERMITS
Robyn Toole, PE

ARCHAEOLOGICAL/HISTORICAL/ARCHITECTURAL INVESTIGATIONS
Linda Weintraut [W]
Craig Arnold [W]
Bethany Natali [W]

TOPOGRAPHIC SURVEY
Luke Jahn, PLS, MBA, EI [HWC]

SCOPING & DESIGN TEAM 1
Charles Boltz, PE
Beth Carter, PE
Adam Koontz, PE
Divya Mamidala

SCOPING & DESIGN TEAM 2
Robert Zolcak, PE [H]
Francis Nauman, PE, SE [H]
Jennifer Loescher, PE, SE [H]

PAVEMENT DESIGN
(IF NEEDED)
Paul Mykytka, PE

ROADWAY AND MOT SERVICES
John Bowen, PE*
Duane McKinney, PE

UTILITY COORDINATION
Sandra Jones, PE*
Adam Lamb, PE*

GEOTECHNICAL ENGINEERING SERVICES
Mike Wigger, PE [EE]
Elizabeth Dwyre, D.GE, PE

RIGHT-OF-WAY PLAN DEVELOPMENT
Patrick McCallister, RWA
Jeff Bislich, PE, PS

TITLE RESEARCH
Jackie Dodd [D]

*INDOT Certified Utility Coordinators
All staff are WSP | Parsons Brinckerhoff unless otherwise noted.

PROPOSED TEAM

Parsons Brinckerhoff, Inc. (66%)
5.6 Waterway Permits
9.2 Level 2 Bridge Design
11.1 Right of Way Plan Development

[NS] NS Services (4% DBE)
5.2 Environmental Document Preparation - CE
5.3 Environmental Document Preparation - Section 4(f)

[W] Weintraut & Associates Historians, Inc. (2% DBE)
5.9 Archaeological Investigations
5.10 Historical/Architectural Investigations

[HWC] Hannum, Wagle & Cline Engineering (5%)
6.1 Topographic Survey Data Collection

[EE] Earth Exploration, Inc. (2%)
7.1 Geotechnical Engineering Services

[H] Hanson Professional Services, Inc. (20%)
9.2 Level 2 Bridge Design

[D] Dodd Title Corporation (1% DBE)
12.2 Title Research
Charles is a lead structural engineer for the WSP | Parsons Brinckerhoff Indianapolis office. Charles’ experience is in the structural analysis and design of transportation related structures, specializing in bridges and transit structures. He has extensive experience in designing and detailing a wide variety of steel and concrete structural elements for bridge rehabilitation. Charles also has a proven track record in the design of steel and concrete structures to meet AASHTO LRFD Specifications.

RELEVANT EXPERIENCE

INDOT LAPORTE EXPERIENCE

I-94 Bridge Rehab & Roadway Mill and Overlay, LaPorte District Indiana. Project manager to deliver a final preservation type project while maintaining constructability and maintenance of traffic along the corridor during construction. Components of this project include:
» Mill and Overlay for I-94 Corridor: 3.5 miles of the I-94 corridor was milled and overlayed with pavement patching. This portion included pavement, roadway, and MOT design.
» NICTD Deck Replacement: The bridge decks for the I-94 bridges over NICTD RR were replaced, bridge joints eliminated by conversion to semi-integral abutments.
» County Line Road over I-94: This bridge originally was scoped for a full deck replacement, and then modified to receive only a mill and overlay on the deck after the field inspection with INDOT.
» CSX Rehab: The I-94 bridges over CSX Railroad were originally scoped for full deck replacements, and then modified to receive only a mill and overlay on the decks after the field inspection with INDOT.

INDOT FORT WAYNE EXPERIENCE

Fort Wayne Design/Build Bridge Rehabilitation, Fort Wayne, Indiana. Project task lead in charge of the design/production efforts for each bridge, and cross coordination with other disciplines such as hydraulics and utilities. SR 3 over the Wabash River is a seven span continuous structure that was converted to have semi-integral abutments (to remove deck joints) with a full deck replacement. SR 930 over NS Railroad was a six span structure that was converted to a continuous semi-integral structure by replacing the last concrete span with a continuous steel girder span and placement of a new deck. Railroad, utility, and hydraulic coordination were also key for this project in order to allow for it to be constructed within its accelerated construction time line.

INSPECTION EXPERIENCE

Fracture Critical Inspection of Ohio River Bridges, Southern Indiana. Team member for the inspection of several Ohio River Bridges. Bridges that were inspected include the Bi-State Vietnam Gold Star Bridges at Henderson, KY; the Glover Cary Bridge at Owensboro, KY; John A. Roebling Suspension Bridge at Covington, KY; and the Earle C. Clements bridge at Shawneetown, IL. The inspections ranged from 1 to 4 weeks in time, and involved an arms length inspection of all fracture critical elements.
DANDI PRASAD - QA/QC

Education: M.B.A., Virginia Tech, 1999; B.S., Civil Engineering, Bangalore University, 1984

Professional Registrations: Professional Engineer: Indiana, 2010 (#10911087); Virginia, 1995 (#026032)

Dandi is a senior supervising structural engineer experienced in the structural analysis and design of transportation-related structures, specializing in bridges and transit structures. He has extensive experience in the project management of large complex projects, designing and detailing a wide variety of steel and concrete structural elements for bridge rehabilitation projects, and developing type studies to evaluate an optimal bridge type for a particular location. Dandi has a proven track record in the design of steel and concrete structures to meet AASHTO LRFD Specifications.

Dandi has led major bridge rehabilitation and replacement projects such as the SR 930 Bridge over the NS RR & SR 3 Bridge Over Wabash River for INDOT. On both projects, Dandi served as project manager for developing the bridge rehabilitation plans. SR 930 over NS RR was a six span structure that included deck reconstruction, replacement of existing concrete beams for the end span with a steel girder to make it continuous steel superstructure over the entire bridge, converting existing abutments to semi-integral end bents. The construction had to be completed within a seven-month window and it required phased construction, RR and utility coordination. The SR 3 Bridge over Wabash River is a seven span continuous structure that was converted to semi-integral end bents and a full deck replacement. The SR 3 bridge was closed to traffic but the closure period was restricted and had to be constructed with an accelerated construction timeline. Both these bridges will be completed within schedule and budget.

ROBERT ZOLCAK, PE - BRIDGE SCOPING & DESIGN

Education: B.S., Civil Engineering, Purdue University, 1989

Professional Registrations: Professional Engineer/IN; INDOT Certified Utility Coordinator

Robert Zolcak’s career includes design and construction services for roadway and bridge replacement/rehabilitation projects of varying complexity. For 10 years, he performed structural inventories and provided appraisal inspections for all of the bridges on the Indiana Toll Road—more than 100 structures. He has also gained valuable experience as an on-site project engineer for multiple locally and federally funded infrastructure projects. Robert holds INDOT’s Local Public Agency project management and utility coordination certifications.

FRANCIS NAUMAN, PE, SE - BRIDGE SCOPING & DESIGN

Education: M.S., Civil Engineering, University of Illinois at Urbana-Champaign, 1984; B.S., Civil Engineering, University of Illinois at Urbana-Champaign, 1983

Professional Registrations: Professional Engineer: IL, TX, OH, OK, WI, IA, TN; Structural Engineer: IL

Francis Nauman has worked on a variety of infrastructure projects. He has served as project manager, resident engineer, design engineer, and construction observer for numerous transportation projects. His experience includes structural investigations/bridge inspections (including fracture critical structures), design and construction observation of new structures and the repair of existing bridges. He has experience with a variety of structural systems that utilize concrete, steel, masonry and timber. Francis is a certified NBIS inspector, and is qualified to serve as either a bridge inspection program manager or a team leader by the State of Illinois. He is trained in NHI Class No. 130078—Fracture Critical Inspection Techniques for Steel Bridges, NHI Class No. 130055 - Safety Inspection of In-Service Bridges and NHI Class No. 130053A – Bridge Inspection Refresher Course.
JENNIFER LOESCHER, PE, SE - BRIDGE SCOPING & DESIGN

Education: M.S., Civil Engineering, Kansas State University, 2006; B.S., Civil Engineering, University of Wisconsin at Platteville, 2002

Professional Registrations: Professional Engineer: IL; Structural Engineer: IL

Jennifer Loescher is experienced in structural design, inspection and construction observation of bridges, and in the preparation of condition reports and permit applications. She has also provided construction observation and documentation for local and federally funded bridge replacement projects.

JOHN BOWEN, PE - ROADWAY AND MOT SERVICES

Education: B.S., Civil Engineering, Rose-Hulman Institute of Technology, 2002

Professional Registrations: Professional Engineer: Indiana, 2007 (10707582); Certified Professional in Erosion and Sediment Control (CEPSC): Cert. No. 8179; Certified INDOT LPA Consultant; Certified INDOT Utility Coordinator; Certified INDOT Environmental Consultant

John Bowen is a lead engineer with WSP | Parsons Brinckerhoff, experienced in roadway design. John’s experience includes managing roadway reconstruction projects for INDOT and various local public agencies within the state of Indiana. He has experience in road design, intersection design, roundabout design, urban interstate design, and small structure replacement projects. In addition to his experience in roadway design, John has also worked on developing NEPA documents, permitting, and utility coordination in the course of his career. This knowledge allows him to understand how all the pieces must fit together to produce a successful project.

ROBYN TOOLE, PE - WATERWAY PERMITS

Education: M.S., Civil Engineering, Purdue University, 2005; B.S., Physics, Purdue University, 2003

Professional Registrations: Professional Engineer: Indiana, 2011 (PE11100669), Michigan, 2013 (6201060088), Kentucky, 2013 (29353), Texas, 2013 (114049)

Robyn Toole is a civil engineer with WSP | Parsons Brinckerhoff’s Indianapolis office specializing in hydraulic and hydrologic analysis with experience in drinking water, waste water, storm water, and water resources planning and design. Her experience includes hydraulic modeling, surge analysis, flood modeling, master planning, pump station design, storage facility design, utility relocation, infrastructure inspections and management of various types of projects. Robyn has also been involved in environmental site assessment and remediation, NPDES and state level permitting, and storm water pollution prevention plan preparation.

PATRICK MCCALLISTER, RWA - R/W PLAN DEVELOPMENT

Education: Associates Degree of Applied Sciences, Vincennes University, 1992

Professional Registrations and Certifications: Real Estate Broker: Indiana 2015 (#RB15001463); INDOT Right-of-Way Plan Development Training; Right of Way Agent (International Right of Way Association); INDOT Approved Buyer

Patrick McCallister has managed and produced numerous right-of-way engineering and right-of-way acquisition projects in his more than 20 years in the survey/engineering industry. Patrick is responsible for managing the entire acquisition process for the project. He assigns and sets schedules for the title researchers, appraisers and buyers and closely monitors the progress of each parcel during the acquisition process. He has extensive experience in right-of-way plan development, legal descriptions, right-of-way parcel plats, transfer documents, and other documents related to the land acquisition process.
PROJECT APPROACH

ENVIRONMENTAL

The WSP | Parsons Brinckerhoff team has prepared environmental documents for projects of all sizes, from Level 1 Categorical Exclusions (CE) to Environmental Assessments (EA) and FONSIs to Environmental Impact Statements (EIS) on some of the most challenging projects in the state. Special attention to environmental and permitting aspects are critical to project success given the SR 75 structure is a Historic Bridge (non-select).

The professionals with WSP | Parsons Brinckerhoff, and our environmental subconsultants—NS Services and Weintraut & Associates—have proactively taken a preliminary look into the environmental issues concerning the SR 75 Bridge over Wildcat Creek, and expect that a level of Categorical Exclusion 2 will be appropriate. The appropriate CE level will be determined based on the alternative treatments that are proposed following completion of the bridge inspection report. Based on a review of similar work our team has performed in the past, it is expected that debris removal under the existing structure will also require construction of scour protection at the base of the piers. This bridge is 075-08-03653B is classified as a Historic Non-Select Bridge. The Historic Bridge Project Development Process will be followed for this bridge. Since this is a non-select bridge, if it is possible that relocation, or replacement will be the preferred alternative, then the bridge must be marketed under INDOT’s marketing program. Since the bridge must be marketed for six months and the public hearing cannot be held until this period ends, this should begin as soon as the project starts.

While the bridge is being marketed, an alternatives analysis for the bridge will be developed. The following alternatives must be considered and evaluated:

» Do nothing;

» Rehabilitation for continued vehicular use (meeting the Secretary of the Interior’s Standards and not meeting the Secretary of the Interior’s Standards);

» Rehabilitation for continued vehicular use with a one way pair (meeting the Secretary of the Interior’s Standards and not meeting the Secretary of the Interior’s Standards);

» Bypass (non-vehicular use)/build a new bridge;

» Relocate the historic bridge and build a new bridge; and

» Deconstruct the historic bridge and build a new bridge.

Cost is a key component of an alternative being prudent and feasible. Demolition of the historic bridge is the last resort; rehabilitation or re-use are preferred.

The team’s efforts will begin by conducting an early Red Flag Investigation (RFI) to identify potential issues and corresponding avoidance, minimization, or mitigation measures. A preliminary look at the site reveals:

» The soils are rated at six percent hydric—likely non-hydric;

» No hazardous material or other mining/petroleum features are located near the bridge;

» The river itself is shown as Wetland code R2UBH—Wetland type Riverine under National Wetlands Inventory;

» Trees are present—Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat will be necessary—if the project footprint will stay within 100 feet of pavement; beyond 100 feet will require ‘formal’ consultation;

» Depending on work to be done this may fall under MPPA B-12, otherwise full Section 106 will probably be required.
Our team’s preliminary assessment is that this project will require a 401/404 permit and a CIF permit at a minimum. The project schedules need to have adequate time-line built in for the permit applications to be reviewed, processed and approvals obtained before RFC. Due to the Historic Classification of the bridge and the necessary activities involved, the environmental planning and permitting needs will need close attention and monitoring.

**BRIDGE INSPECTION & SCOPING DOCUMENTS**

The WSP | Parsons Brinckerhoff team has visited the bridge site, taken a close look at the supporting documents and other publicly available records as part our due diligence for this Letter of Interest. We generally agree with the recommendations of the mini-scope that this bridge is a good candidate for replacement given its age and fracture critical nature of the steel truss structure. However, we consider the preliminary field check and scoping meeting at the project site as a valuable meeting. The preliminary field check will involve INDOT LaPorte bridge personnel, INDOT Central Office personnel, our PM Charles Boltz, and additional key team members. In most cases, there is a considerable time lapse from the initial mini-scope visit and the field check during which new issues could have occurred at the bridge which could be of a time-sensitive nature. Also, since the LaPorte District bridge asset engineer or inspection personnel are at the field check, they often provide a recent history perspective that is extremely helpful for bridge preservation or replacement strategies. The scoping report will take an in-depth look at the alternatives developed for this project and a detailed cost estimate for each alternative. Based on this alternatives analysis, Charles and his team will provide recommendations for this project.

Charles’ experience and leadership in implementing different solutions that are tailored to a particular location will help the bridge replacement project at SR 75.

Charles Boltz and the WSP | Parsons Brinckerhoff staff are currently involved in two truss bridge projects for the Vincennes District for which two different approaches are being implemented.

First, the US41 Bridge over Pigeon Creek (Bridge No. 041-82-03286 GSBL) is listed in the Indiana Historic Bridge Inventory Vol 2 (2009). For this bridge, we are rehabilitating the bridge truss elements including floorbeams, floor stringers, lower chord riveted connections; existing substandard steel barriers are being replaced with concrete barriers and the bridge deck is being replaced. Here, the steel repairs would result in adequate Load Rating capacity for the National Highway System.

The second steel truss bridge was the SR 68 Bridge over Pigeon Creek Overflow, also located in the Vincennes District, was initially scoped for a deck overlay. During preliminary design we discovered that the Load Rating for the existing steel truss was not adequate. We explored several rehabilitation methodologies to increase the Load Rating to acceptable levels. The final conclusion reached was rehabilitation, which was too cost prohibitive, and we recommended the steel truss superstructure be replaced by a new steel girder superstructure. The existing foundations and substructure has been left in place after determining the adequacy of the units. It should be noted that the SR 68 Bridge was not designated as a Historic structure and is non-select.
BRIDGE DESIGN CONSIDERATIONS

If the SR 75 Bridge Replacement is the most viable option based on our findings and alternatives analysis; the critical elements to be considered include:

» Our hydraulics team will provide an in-depth hydraulic analysis and report which includes findings related to scour depths, Q-100 elevations and Ordinary High Water elevation. The hydraulic data will serve as a basis for Structure Size and Type Report for bridge sizing. Also, an economic analysis of the alternatives will result in a coherent bridge type being selected. The Q-100 elevation and the required 2 foot minimum freeboard will determine roadway profiles.

» The 1946 bridge is supported on untreated timber piles, which were required to be driven to a 20T capacity, based on acceptance by the pile driving formula in use at that time. The pile caps are below low water as shown on the 1946 plans, and therefore it is likely that the piles remain in good condition despite their age. Based on regional geologic mapping and the 1946 borings shown on the plans, the soils are outwash sands and gravels. The confined aquifer conditions that caused major construction problems during widening of I-65 over Wildcat Creek do not appear likely to be present at SR 75 site; there is no confining clay layer above the sand, based on the 1946 borings. Based on regional mapping, top of rock is anticipated to be at about El. 550, about 100 feet below the bottom of the channel of Wildcat Creek. Can the existing footings remain and perform well over the long term? This is a key question that needs to be answered in great detail before making decisions about replace or rehab for the substructure units.

» There are farm field entrances that may be affected if the roadway profile needs to be raised significantly creating potential right-of-way impacts. In order to reduce project costs, maintaining existing roadway profiles is a high priority.

» If a bridge replacement is warranted; full closure of existing structure would be required. SR 75 traffic would need to be detoured and we will work with the INDOT LaPorte District office and the Carroll County staff to determine the most viable options for traffic in the area.

PRACTICAL DESIGN AND CONSTRUCTABILITY

Our experience partnering with INDOT and contractors has provided Charles and our team a better understanding of constructability issues. Charles and the project staff understand that practical design has the most impact early in the design process. The team will weave practical design and constructability reviews from the beginning of the project development process and throughout the life of the project. At this location, Practical Design Ideas include:

» Keep overall bridge width the same as existing or just marginally wider. This would require a Level 1 DE for inadequate shoulder widths on the existing bridge and approach roadway.

» If geotechnical and hydraulic analysis allows, utilize existing substructure units.

» Explore rehabilitation options in great detail. If adequate Load Rating can be achieved with rehabilitation; consider full life-cycle analysis of costs related to rehabilitation versus replacement options to ensure INDOT’s long term interests are achieved.

» Charles has worked with Charles Bradsky, Lisa Shrader and INDOT LaPorte District staff on previous rehabilitation projects on I-94. The constructability review with the District staff and the feedback was a key element of project success. Charles will include experienced WSP | Parsons Brinckerhoff staff early in the design process, such as Kevin Hall, PE, from our construction inspection team who has over 33 years overseeing construction projects for INDOT to ensure that our approach is thorough, our plans and specs are clear and can be efficiently constructed.
TEAM’S DEMONSTRATED QUALIFICATIONS

**US 41 OVER UPPER PIGEON CREEK TRUSS BRIDGE REHAB, VANDERBURGH COUNTY, INDIANA**

WSP | Parsons Brinckerhoff is currently providing engineering services for the rehabilitation of a 200’ steel truss bridge in the Vincennes District of INDOT as part of an on-call project. The existing truss structure currently does not pass load rating requirements. Failure for the structure to achieve load rating is due to certain elements either failing, or other elements being undersized for the current truck traffic. This structure is currently being considered to become historic, but at this time it is neither “Select” nor “Non-Select”.

Planned repair work on the structure includes a full deck replacement which will allow access to complete repair on the supporting steel superstructure. Floor beams at the abutments are currently undersized and will be replaced along with all stringers that have failed at the connection to the floor beams. After all steel elements have been repaired or replaced the steel truss will be cleaned to remove existing pack rust and painted.

Additional elements that will be repaired include the roadway safety features, and the existing floodwall will be brought back to working condition.

**SR 68 OVER UPPER PIGEON CREEK, INDOT VINCENNES DISTRICT, EVANSVILLE, INDIANA**

As part of our on-call contract with the Vincennes district, WSP | Parsons Brinckerhoff is providing rehabilitation services for SR 68 over Upper Pigeon Creek in Evansville, Indiana. The existing structure is a Pratt truss bridge that originally was scoped for a deck overlay, bridge painting, abutment repair and scour related repairs. Charles and his team conducted a full inspection of the structure. Upon analysis, we found that the bridge did not pass Load Rating. Further, we analyzed the repairs needed in order to meet Load Rating. The most cost-effective solution was replacing the superstructure and final design is now being completed.

**SOUTH STREET & COLUMBIA STREET OVER WABASH RIVER (LESLIE BRIDGE), INDOT CRAWFORDSVILLE DISTRICT, INDIANA**

WSP | Parsons Brinckerhoff provided routine & special in-depth bridge inspection services for a segmental cast-in-place post-tensioned box girder (Spans 1-4) and post-tensioned concrete voided slab (Spans E-H) bridge. The routine inspection included visual inspection of all accessible superstructure bridge elements, as well as all above ground substructure elements, while paying particular attention to previously noted issues.

The inspection required the use of an under bridge inspection unit to assess the outside of the superstructure. The interior of the box girders were also accessed during the inspection. WSP | Parsons Brinckerhoff coordinated with railroad flagmen from CSX and NS to perform the inspection, as well as having a water rescue plan for the above water portions. The special in-depth inspection included all elements of the routine inspection, as well as crack mapping of the box girders and tendon bore scoping, which utilized Ground Penetrating Radar to locate tendon ducts.
I-94 BRIDGE REHAB AND ROADWAY MILL AND OVERLAY, LAPORTE & PORTER COUNTIES, INDIANA

WSP | Parsons Brinckerhoff is currently providing preliminary engineering services for the rehabilitation of three separate structures as well as mill and overlay of a portion of roadway on and above I-94 in LaPorte County. This project is a prime example of the benefits of applying the practical design approach. The original project called for the complete deck replacement on the three structures. However, during our initial site visit, it was determined that only one of the three structures needed a full deck replacement and the other two would receive a mill and overlay.

Maintenance of traffic considerations for this project was of high concern due to traffic volumes on the I-94 corridor. Roadway and bridge designers have prepared maintenance of traffic plans that allow for two lanes of traffic to run constant during the phased construction of both the roadway work and the bridge rehabilitations.

Mill and Overlay for I-94 Corridor: 3.5 miles of the I-94 corridor was milled and overlayed with pavement patching. This portion included pavement, roadway, and MOT design.

NICTD Deck Replacement: The bridge decks for the I-94 bridges over NICTD Railroad were replaced, bridge joints eliminated by conversion to semi-integral abutments.

County Line Road over I-94: This bridge originally was scoped for a full deck replacement, and then modified to receive only a mill and overlay on the deck after the field inspection with INDOT.

CSX Rehab: The I-94 bridges over CSX Railroad were originally scoped for full deck replacements, and then modified to receive only a mill and overlay on the decks after the field inspection with INDOT.

WORKING TOGETHER WITH INDOT LAPORTE DISTRICT STAFF HAS RESULTED IN CONSTRUCTION COST SAVINGS OF $4.2M OVER THREE SEPARATE PROJECTS

I-94 Rehab over NICTD Railroad
Cost Saving Initiatives: Abutment bearings replaced with H-Pile sections.
TOTAL SAVINGS TO INDOT = $1.3 M (36%)

County Line Road over I-94
Cost Saving Initiatives: Original scope called for a deck replacement, and during the field check this was modified to a deck overlay. Cost savings from the bridge was able to offset the larger amount of pavement repair that was required on the roadway mill and overlay.
TOTAL SAVINGS TO INDOT = $540,000 (9.5%)

I-94 Rehab over CSX Railroad
Cost Saving Initiatives: Original scope called for a deck replacement, and during the field check this was modified to a deck overlay.
TOTAL SAVINGS TO INDOT = $2.4 M (60% PROJECTED)
INNOVATION

The WSP | Parsons Brinckerhoff team strives for innovative thinking from all team members. Our team may request design exceptions where appropriate and only if resulting in a direct benefit (cost or time savings) to INDOT. Every project has site-specific constraints and certain design criteria which may limit an idea that could possibly benefit the project.

COLLABORATION

WSP | Parsons Brinckerhoff has partnered with local subconsultants who we feel complement our skill set, providing INDOT with the “best of the best”. We know and trust our partners to collaborate and communicate openly, which is essential for the successful and timely delivery of any project.

DEPENDABILITY

The WSP | Parsons Brinckerhoff team focuses on accountability and commitment. Our commitment to INDOT is to develop every project on-schedule and on-budget. We know that you are accountable for all project decisions and our job is to support INDOT in those decisions with proper engineering documentation.

COMMUNICATION

The WSP | Parsons Brinckerhoff team recognizes that this project requires a multi-disciplinary approach to ensure project success. It will be critical for us to establish a reliable communication protocol with the INDOT PM. Charles is committed to optimizing the time and resources of INDOT in whatever manner is most convenient.

I-65 OVER RIVERVIEW DRIVE REHABILITATION PROJECT (INDIANA APPROACH BRIDGE TO JFK BRIDGE), CLARK COUNTY, INDIANA

WSP | Parsons Brinckerhoff provided engineering design services for the I-65 Bridge over Riverview Drive Rehabilitation project for INDOT/KYTC. The existing seven-span structure included three end spans that had a fracture critical steel stringer-floor beam detail. A major part of this project included fracture critical repair details to be developed in the end spans. WSP | Parsons Brinckerhoff developed the complex structural steel repair details to ensure that the structural life of these spans was extended. Lane closures were limited during construction and innovative repair schemes had to be developed so that construction could be completed during lane closures. During finger-joint replacement construction, after the deck had been removed the structural steel stringer and floor beams were found to be in an advanced state of disrepair. WSP | Parsons Brinckerhoff, along with another firm, provided emergency repair details so that the bridge could be open to traffic as soon as possible. The coordination between INDOT, KYTC, contractor, and WSP | Parsons Brinckerhoff was critical to ensure that the appropriate repairs were completed in a short time frame and safety was not compromised.

IDOT VARIOUS PHASE I BRIDGES, COOK AND DUPAGE COUNTIES, ILLINOIS

Hanson is currently providing services for various phase I bridge projects in Cook and DuPage Counties in Illinois. Services include bridge inspections in preparation of a Phase I project report (PDR), Bridge Condition Survey and Analysis (BCSA), and Bridge Condition Report (BCR). These projects include:

- Torrence Avenue over Grand Calumet River Bridge Rehabilitation and Painting
- Western Avenue over Cal Sag Channel Bridge Rehabilitation and Painting
- I-290 over Salt Creek Bridge Replacement

WHY WSP | PARSONS BRINCKERHOFF?

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