



TECHNICAL PROPOSAL FOR

SR 32 PROGRESSIVE DESIGN-BUILD PROJECT

RFP# PD2402

VOLUME II

NOVEMBER 4, 2024

SUBMITTED TO



SUBMITTED BY



E&B PAVING

Michael Baker
INTERNATIONAL



E&B PAVING

Michael Baker
INTERNATIONAL

SR 32 PROGRESSIVE DESIGN-BUILD PROJECT

NOVEMBER 4, 2024

Brian W. Shattuck
Major Projects Project Manager
Indiana Department of Transportation
100 N. Senate Avenue
Indianapolis, Indiana 46204

RE: SR 32 Progressive Design-Build Project

Dear Mr. Shattuck and Members of the Selection Committee,

INDOT will benefit by working hand-in-hand with a firm that is a collaborative partner, an excellent coordinator and communicator, a steward of your funds, and is flexible to meet your suggested schedule. The E&B Paving, LLC (E&B Paving) | Michael Baker International, Inc. (Michael Baker) PDB Team offers INDOT the following:



COLLABORATIVE PDB LEADERSHIP

INDOT and the selected Independent Cost Estimating (ICE) firm will benefit from a collaborative PDB partner and can leverage our considerable experience with alternative delivery projects and extensive designer-contractor-owner teamwork. Our team utilizes transparent, consistent communication, which will aid the success of the SR 32 Realignment project. We understand the complexity of executing INDOT's first PDB project. Michael Baker provided the first alternative delivery methods for other agencies, so we know the complexity of collaborating with the owner on new delivery methods. Our Design Manager Julie Thurman, PE, has proven experience engaging in first-time alternative delivery method projects for state DOTs such as Pharr District and TxDOT. Julie and our PDB team will be the trusted partners INDOT needs for smooth project delivery.



FLEXIBILITY = SUCCESS SOLUTIONS

As a PDB team, we leverage our extensive resources to identify issues early and offer proactive solutions, ensuring informed decision-making. Our proven processes for collaborative innovation save time, reduce costs, and mitigate project risks, delivering the best value to INDOT. For instance, on the I-69 DB Added Travel Lanes project in Madison/Delaware Counties, Michael Baker's team showcased flexibility by integrating new data collection technology into the design just two weeks before the final plans were due. Julie Thurman (PM) and Doug Dagley (formerly with INDOT) provided clear guidance, enabling INDOT the ability to analyze the collected data for future project benefits.



INNOVATIVE, COST-SAVING SOLUTIONS

Our experienced staff prides themselves on introducing innovative ideas and working with INDOT to develop a fresh approach to project challenges. On the E&B Paving I-265 Clark and Floyd Counties project, Project Manager, Bobby Steele, showcased his ability to provide significant value to INDOT and the traveling public with two Cost Reduction Incentives (CRIs) proposed and accepted on this contract with a contact savings of \$3.2 million. One CRI involved accelerated bridge construction where six bridges were completed in six weekends instead of seven months. The other CRI involved using a temporary bridge to eliminate two phases of interstate construction. Bobby will bring an energetic and innovative approach to project management to the SR 32 Realignment project that will incorporate cost-reducing solutions and time management solutions.

E&B Paving and Michael Baker have assembled a team that has the experience and resources necessary to complete this project. On behalf of the entire team, we are eager to work with INDOT to complete the PDB SR 32 Realignment project.

Sincerely,

E&B Paving

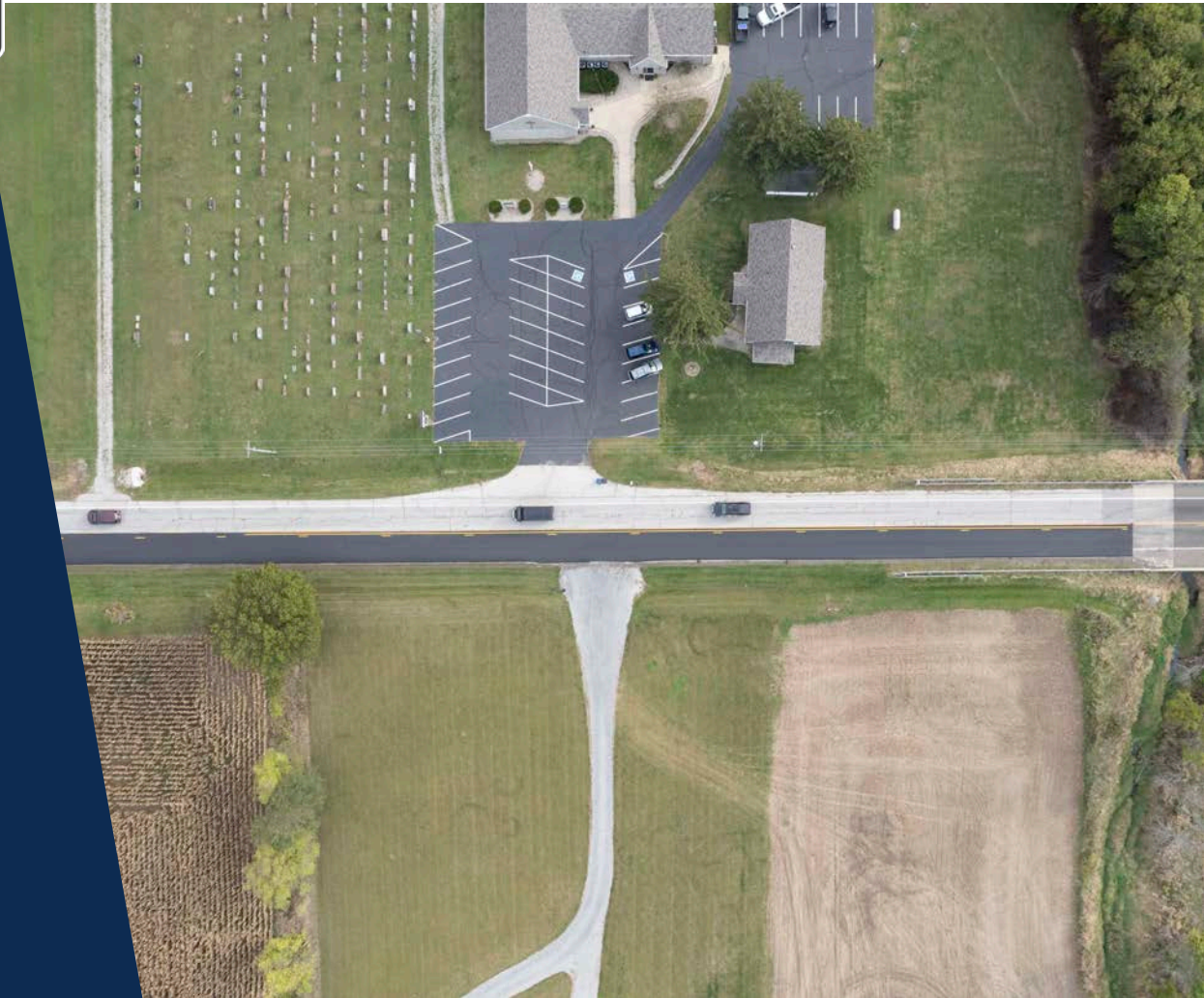
Steve Varner, PE
Vice-President Project Delivery
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317-460-0744

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4.2.2.1 ORGANIZATIONAL CHART

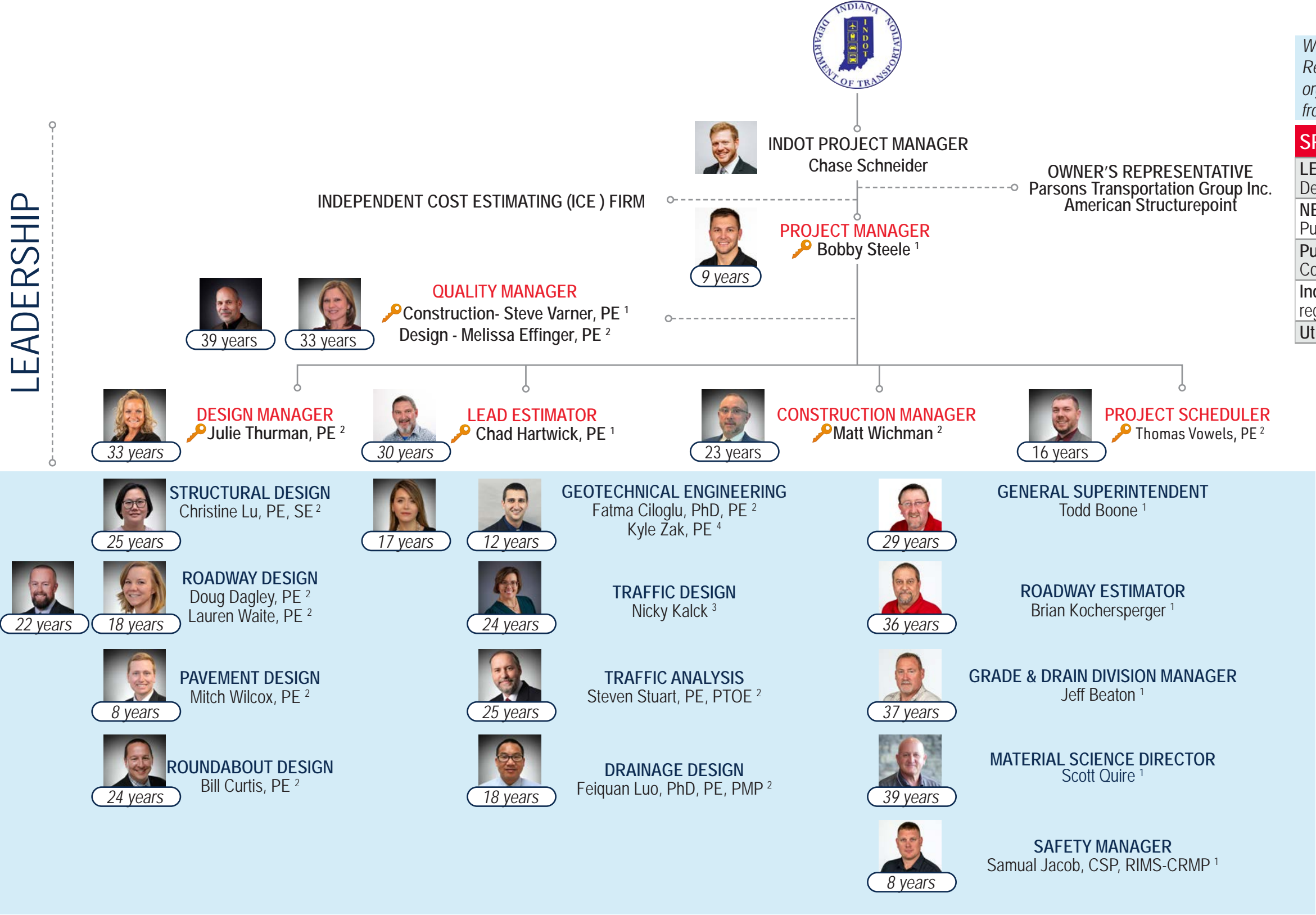


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4.2.2.1 ORGANIZATIONAL CHART

INDOT can expect a full-service, hands-on PDB team to complete the goals and requirements of the SR 32 Realignment project. Our personnel have been selected for their technical skill and ability to collaborate. Our key staff have exceptional credentials, a commitment to success, and proven experience delivering projects with aggressive schedules on time and within budget. Key Personnel will serve in critical roles during both preconstruction and construction phases. Continuity of personnel eases the transition between phases, provides efficiencies, and allows for consistent leadership to achieve INDOT's Project Goals. Below in the organizational chart, we present a unified PDB team working through design, preconstruction, and construction.



We will work with the stakeholders to help bring the SR32 Realignment project to reality. Starting with INDOT, we will organize our communication plan to meet the project goals, from developing the scope of work through implementation.

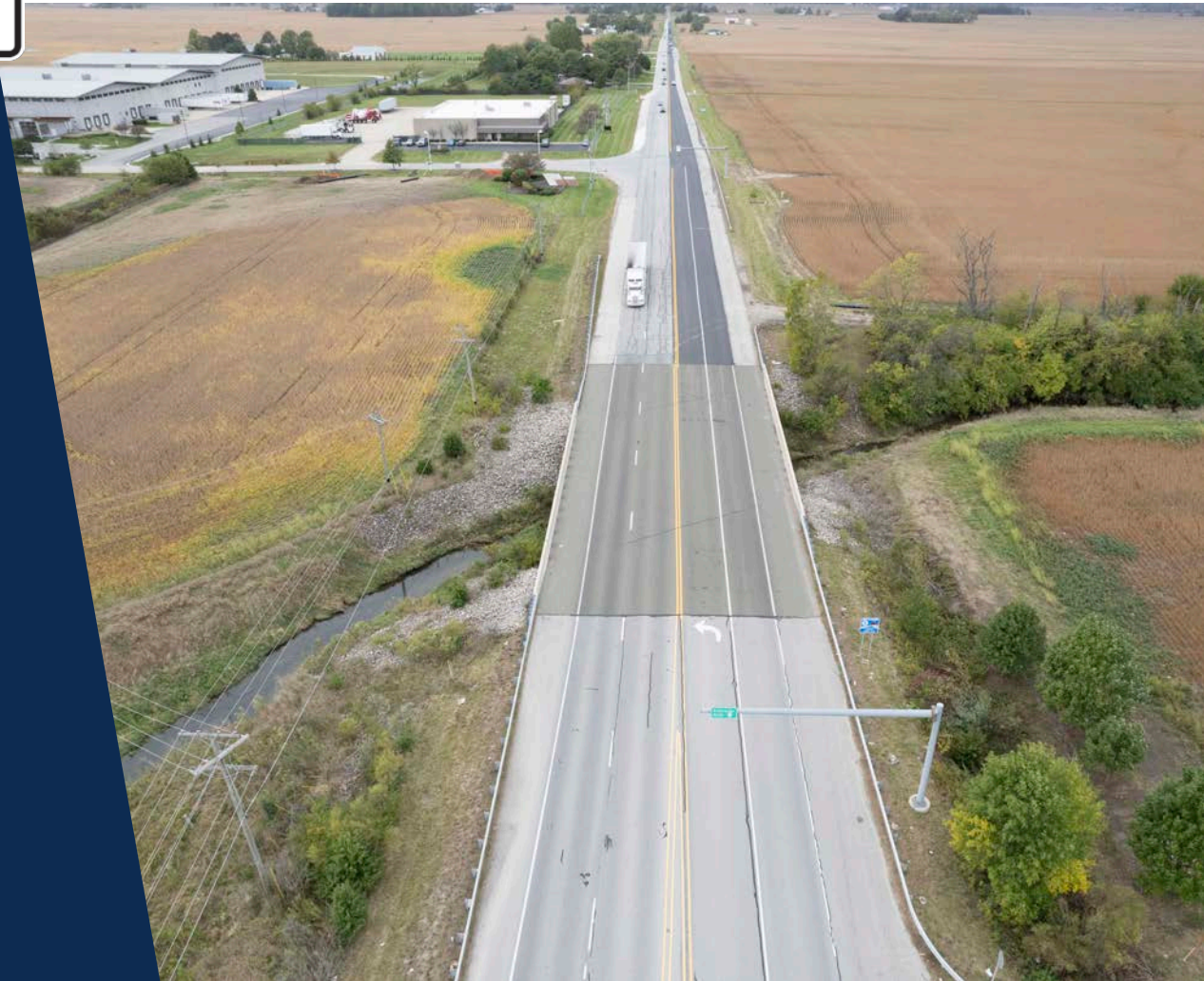
SR 32 Realignment - Stakeholders	
LEAP Stakeholders	- Developer, IEDC - Indiana Economic Development Corporation, Boone County, City of Lebanon
NEPA Stakeholders	- FHWA, Resource Agencies, General Public
Public Stakeholders	- Motorists, Business Leaders, Community Members, Local Residents
Indianapolis Metropolitan Planning Organization: Traffic/ regional projections (diversions, demand drivers)	
Utilities: Pipeline location and new utility corridors	

LEGEND

- 1 - E&B Paving
- 2 - Michael Baker International, Inc.
- 3 - Resolution Group
- 4 - Terracon

Key Personnel | DBE Subconsultant

4.2.2.2 EXPERIENCE OF THE PROPOSER AND IDENTIFIED CONTRACTORS



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4.2.2.2 EXPERIENCE OF THE PROPOSER AND IDENTIFIED CONTRACTORS



E&B PAVING

1. Lead Contractor

E&B Paving was established in 1967 and serves the public and private sectors through Indiana and Kentucky. E&B Paving's Central Indiana group provides a full suite of civil construction services, including asphalt paving, concrete paving, structures, site concrete, earthwork, and asphalt and concrete production. E&B Paving's parent company, Irving Materials (IMI), opened shop in 1928 and, to this date, is a supplier of concrete and aggregate in five states in the Midwest. In the year 2000, IMI acquired another entity,

Specialties Company, which performs guardrail, fence, soil stabilization, milling, and concrete breaking, amongst other scopes of work. Today, Specialties Company is a sister entity that operates independently of E&B Paving as its own legal entity. Still, Specialties Company is always available for best practice conversations regarding their scopes of work.

When design-build contracts entered the INDOT market in the 1990s, E&B Paving participated in several projects across the state. In recent years, E&B Paving has been a part of several alternative delivery pursuits in Indiana and Kentucky and has had its fair share of working on several of these projects as either the prime contractor or subcontractor. In 2017, E&B Paving landed their first design-build best value contract (I-65 Southeast), E&B Paving's largest contract ever won. E&B Paving had previously completed two alternative delivery projects on I-69 Section 4 and I-65 ATL Clark County which positioned them to land and successfully build I-65 Southeast. In recent years, E&B Paving has succeeded in alternative delivery as a subcontractor on various contracts across Indiana. E&B Paving is currently working on two Build Operate Transfer (BOT) projects, for a municipal initiative and another for a private development.

Beyond alternative delivery, E&B Paving has performed and is currently working on several projects with new alignment, new construction, and reconstruction. Every project has challenges, and E&B Paving continues to staff each project appropriately to achieve the contract requirements and build long-lasting relationships. One project we are highlighting, SR 22, has significant relevance to this SR 32 project; you can read the highlight within. E&B Paving has constructed nearly 100 roundabouts. Most recently, it built an entire roundabout in 45 days on a state road near Ruoff Home Mortgage Venue, which required close coordination due to concert traffic.

E&B Paving has countless private sector projects for which we have worked directly for owners, developers, and general contractors. These projects typically have stringent safety and quality requirements to perform work on their job sites. Many of our private sector projects are returning customers, which is a testament to the quality of work our team consistently performs. E&B Paving provides custom solutions to private entities requiring project-specific specifications.



SR 22 Reconstruction, Bike & Pedestrian Facilities, Bridge Replacement

E&B Paving provided construction services to improve pavement and bridge conditions on SR 22, enhance pedestrian facilities, and upgrade streetscape amenities in downtown Upland.



Flexibility = Successful Solutions

E&B Paving, led by Bridge Project Manager Bobby Steele, initiated the scope change from a bridge rehabilitation to a full bridge replacement. This change was a cost-saving initiative for INDOT, and reduced the time of closure from 180 days to 120 days, and the life cycle for this bridge was increased from 50 years to 75 years. This change also eliminated major risks associated with the initially prescribed work and was a safer option from a constructability perspective.

Stakeholder Taylor University received a grant presenting an opportunity to alter the design of the walking paths from the University into the downtown area of Upland. One significant change was the upgrade of the planned 5' concrete sidewalks to 8' concrete pedestrian paths with 2' of green space. This major variation from the original project design was accomplished by working cooperatively with Taylor University, INDOT, local homeowners and businesses, and the Town of Upland. The redesign impacted various design elements, including utilities, environmental, hydraulics, lighting components, and right-of-way, all of which had to be carefully accounted for to avoid rework, wasted funds, and negative schedule impacts for all parties involved.



This contract is a prime example of partnering on a project where multiple organizations come together to achieve mutual goals. This project has faced many challenges, including incorporating a Widened Sidewalk Project & Cost Reduction Incentive Bridge Proposal into the contract, unforeseen utility conflicts, local public access, unsuitable soils, and much more. With constant teamwork, open communication, trust, and collaboration between the stakeholders, this contract has been successful in achieving mutual goals, staying on schedule, and staying within budget.

- Charles Schueler PE/PS



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Project Manager Spotlight

Project Manager Bobby Steele will lead the on-site organization, providing leadership by directing the team's focus on the primary goals and plans of the project. Bobby will develop a project-specific management plan and implement quality control strategies, leveraging the following:

- **HIGHLY RELEVANT EXPERIENCE.** With 9 years of project management experience, Bobby will integrate INDOT into the PDB process as a cohesive team member, adhering to INDOT's standards, expectations, and protocols to ensure the project is delivered on time and done right the first time. Bobby has an energetic and innovative approach to project management that will incorporate cost-reducing and time management solutions.
 - **DEDICATION.** E&B Paving is committed to Bobby maintaining 100% focus on the SR 32 Realignment PDB success!
 - **PROACTIVE MANAGEMENT TO MEET THE COMPLETION DATE.** With a track record of on-time completion and effective management techniques, Bobby will establish a communication plan and maintain it throughout the life of the project to confirm the PDB team acts as an extension of INDOT staff and mobilizes effectively to address all project concerns.
- Bobby will manage the day-to-day responsibilities of the team and coordinate with INDOT. He will utilize the following strategies for successful project delivery:
- Understanding the project scope and the relationships between design elements, Bobby will work with the design team to deliver an efficient, cost-effective design.
 - Communicate with INDOT and team members continuously, adapting as project changes occur and incorporating them into the design.
 - Set clear expectations for all E&B Paving | Michael Baker PDB team members regarding the project schedule and quality to minimize design issues.
 - Prepare a risk analysis before the project initiation to identify risks. SR 32 Realignment project risks include weather delays, managing stakeholders' expectations, right-of-way, PDB coordination, and accommodations for future projects. We will develop solutions and manage the risks throughout the project. Using a work breakdown structure to manage the team and making adjustments if any effort falls behind.
 - Maintain document control process and keep all communications documentation current and organized.
 - Celebrate milestone submittals with team members to encourage teamwork and communication.



SR144 & I-69 Interchange in Johnson County
PROJECT MANAGER



US 52 in Marion, Hancock, and Shelby Counties
PROJECT MANAGER



I-65 ATL in Jackson and Bartholomew Counties
PROJECT MANAGER

Michael Baker

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2. Lead Designer

Michael Baker is currently assisting multiple state DOTs in the strategic use of progressive design-build (PDB) procurement, an emerging tool for owners to leverage contractor innovation, achieve greater cost certainty, and reduce the project delivery schedule. As an industry leader in progressive design-build/design-build and alternative delivery, Michael Baker has a national design-build portfolio valued at more than \$13 billion in construction costs and has served in a variety of roles for all alternative delivery types for a number of clients (primarily department of transportation clients) across the country.

The SR 32 Realignment project is INDOT's first PDB delivery project. Our PDB team believes INDOT has selected a great project to incorporate this delivery model. We have also worked with several DOTs to help them deliver their first alternative projects. Some regional examples are provided below.

- The Michael Baker team delivered the first value-based design-build procurement for the Kentucky Transportation Cabinet on the \$800 million I-65 Downtown Louisville Ohio River Bridges project.
- The Michael Baker team delivered the first value-based DB procurement for the Ohio Department of Transportation on the \$300 million I-90 George Voinovich Bridge in Downtown Cleveland.
- The Michael Baker team helped manage the first implementation of CM-GC for the Ohio Department of Transportation on the Dublin Pedestrian Bridge project, assisting with the procurement process.
- Julie Thurman served as the Design Manager on the first Design-Build project for the Pharr District, TxDOT working on the I-2/I-69C Interchange Reconstruction and Added Travel Lanes Project, Pharr, TX.



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Michael Baker has been involved in numerous DOTs' first design-build, CM-GC, or PDB projects as a designer, offering this critical perspective as well. Some examples include:

- Serving as the Lead Designer on the Winona Bridge Rehabilitation over the Mississippi River – Minnesota DOT's first major CM-GC project
- Serving as the Designer on the Utah DOT's first PDB project, the \$348 million US 89 Reconstruction in Layton, Utah. This project also serves as the first large transportation PDB in the country

Michael Baker will bring lessons learned from all of these projects and numerous other non-traditional alternative delivery projects in other parts of the country to Indiana. Partnering with E&B Paving, our PDB insight and experience can be highly beneficial to the SR 32 Realignment project and bring valuable lessons learned from other states.



Design Manager Spotlight

Our Design Manager, Julie Thurman, PE, will oversee and drive the design of the SR 32 Realignment project forward.

Julie Thurman is a skilled design manager with experience in design and management of transportation projects ranging in size from small structures and pavement overlay projects to major design-build projects in urban environments. Julie's expertise in managing numerous high-dollar, complex, design-build projects in several states has given her unique experiences. Her expertise has been applied to projects throughout Indiana. She leads her design teams to use an informal value engineering approach to offer optimized design solutions that have delivered more facility within the program budget and resulted in cost savings to the Owner as she did on the LBJ Expressway by shortening all of the bridge spans and condensing the overall footprint of the project.

Julie will work closely with Project Manager, Bobby Steele, and Construction Manager, Matt Wichman, to ensure the design is fully coordinated with the construction process and that it meets the various technical approvals and construction permits that will be secured over the life of the project.

Key drivers that Julie will consider in planning the design and integration of construction processes will be:

- Incorporating design elements that shorten the critical path
- Identifying early construction elements that are driven by procurement requirements and/or long lead items
- Understanding key risk items within the design process that directly affect the construction process
- Providing flexible, innovative design solutions
- Timing and process for submission approvals

Once these items are identified, Julie and the team will break the project into buildable units and structure them appropriately for integration into the overall project schedule.

As our Design Manager, Julie recognizes that design is an iterative process. Our PDB team approach will be to operate a "no surprises" culture. She will involve INDOT in the design process and agree to the content of design submissions at the earliest possible stage. Julie will also establish a mutual understanding of the timing and volume of such submissions to make the approval process efficient and effective.



I-2 DB, Pharr District, Texas
DESIGN MANAGER



I-69 ATL DB, Madison and Delaware Counties
DESIGN MANAGER



I-69 DB Added Travel Lanes, Madison/Delaware Counties

Michael Baker served as INDOT's Owner's Representative, preparing preliminary 30% plans, procurement documents, and procurement advisor from the proposal phase through construction.

Flexibility = Successful Solutions

Two weeks before the final proposal plans were due to INDOT for procurement, INDOT Pavement Design decided to use this project to implement new subgrade test sections developed in collaboration with INDOT Materials and Testing and Purdue University. Along with incorporating these new subgrade treatments into the plan sets, INDOT proposed installing strain gauges and data collection systems into the project contract. This request was the first time such strain gauges and sensors were proposed for any INDOT project.

Initially, INDOT planned to provide all unique special provisions necessary for this work, but the drafts were incomplete. Consequently, Michael Baker's staff had to research and rewrite much of the information to ensure clear and concise direction for the Design-Build teams during the proposal process. We accomplished this through extensive coordination and collaboration with INDOT and other stakeholders involved in the initial research of the subgrade sections and the proposed implementation of the strain gauges.



Due to the extensive work required to incorporate these elements into the contract, there was a delay of a few months for the release of the proposal to the Design-Build teams. However, INDOT was highly grateful for the thoroughness of the documents that Michael Baker developed.



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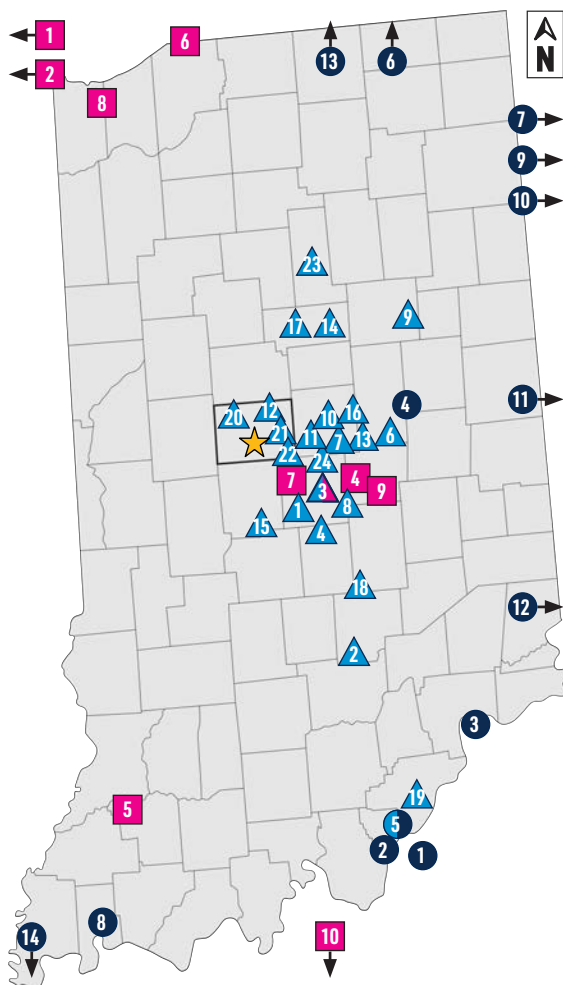
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As one cohesive team, E&B Paving and Michael Baker, along with subconsultants Terracon Consultants (Terracon) and the Resolution Group, Inc. (Resolution Group), will strive to exceed INDOT's SR 32 goals while maintaining the best value and meeting milestone dates during the PDB phasing. Our team is personally invested in the success of the SR 32 PDB Realignment project, as we have already conducted working meetings to discuss the current conditions of the roadway, project site, and the technical solutions needed to complete the scope of work.

We provide a Design Manager with local and national design-build experience, pending Design-Build Institute of America (DBIA) credentials, and extensive expertise, ensuring exceptional project management. Our design team has participated in numerous unique projects on both the construction and design sides, bringing a wealth of knowledge and experience to each endeavor.

Our balance of staff roles leveraging project experience with lessons learned provides INDOT with the best well-rounded PDB team. Our extensive experience with INDOT on numerous challenging projects has established us as trusted partners in the industry. The E&B Paving | Michael Baker PDB team brings a national team of Design-Build experts to provide oversight and advisory roles as we navigate INDOT's first PDB project. Our design team has worked with various state DOTs on other design-build projects, offering valuable lessons from those experiences.

As shown below, the E&B Paving | Michael Baker PDB team experience includes alternative delivery projects of all sizes, all delivery methods, and all roles.



MICHAEL BAKER PROJECTS

- | | |
|--------------------------------------------|--------------------------------------------------------|
| 1 ORB (Abraham Lincoln Cable-Stay) (OR/DB) | 8 ORX - Section 2 (OR/DB) |
| 2 Sherman Minton (OR/DB) | 9 CCG1 - I-90 WB Innerbelt Bridge (OR/DB) |
| 3 Milton Madison (OR/DB) | 10 CCG7 (OR/PDB) |
| 4 I-69 Added Travel Lanes (OR/DB) | 11 Summit 76/I-77 (CMGC) |
| 5 I-65 Added Travel Lanes (OR/DB) | 12 Brent Spence (OR/DB) |
| 6 US-131 Reconstruction (DB/CFD) | 13 I-69 Reconstruction (DB/CFD) |
| 7 Opportunity Corridor Phase 3 (DB/CFD) | 14 Eggners Ferry Bridge Emergency Replacement (DB/CFD) |

E&B PAVING PROJECTS

- | | |
|------------------------------------------------------|------------------------------------------------------------|
| 1 White River Innovation District (BOT)*** | 13 Olio Rd. & 141 st St. (DBB)*** |
| 2 SR-28940 I-65 Southeast Indiana (DBBV) | 14 McFarland Ave. (DBB)* |
| 3 B-36910 I-65/I-70 North Split (DB) | 15 Orly Rd. (DBB)*** |
| 4 I-69 Section 6 Contract 5 (DB) | 16 R-41499 SR-38 & Boden Rd. RAB (DBB)*** |
| 5 I-65 Added Travel Lanes (OR/DB) | 17 Center Rd. (DBB)* |
| 6 Pendleton Distribution Center (DB)*** | 18 R-40411 SR-252 Reconstruction (DBB)* |
| 7 Noblesville Innovation Mile (BOT)*** | 19 R-40412 US-31 Reconstruction (DBB)* |
| 8 Various INDOT Districts (IDIQ) | 20 Boone County Bridge Bundle (DBB)** |
| 9 R-41565 SR-22 Reconstruction (DBB)* | 21 R-39231 I-65 & I-865 Interchange (DBB)** |
| 10 Pleasant St. Phase 1 (DBB)* | 22 2018-05 96 th St. Resurface & Curbs (DBB)*** |
| 11 146 th St. (Various Contracts) (DBB)* | 23 Grissom Airport Base (DBB)*** |
| 12 R-41841 I-65 Added Travel Lanes Boone Co. (DBB)** | 24 IR-35600 US-31 & I-465 Hamilton Co. (DBB)* |

STAFF EXPERIENCE WITH PREVIOUS FIRMS

- | | |
|---------------------------------------|---------------------------------------|
| 1 I-88 Fox River (DB) | 6 Indiana Toll Rd. 80/90 PUSH (DB) |
| 2 I-355 over Des Plaines River (DB) | 7 I-65 at W 38 th St. (DB) |
| 3 B-36910 I-65/I-70 North Split (DB) | 8 I-65 at US-30 (DB) |
| 4 I-70 "Super 70" (DB) | 9 I-465 at I-70 (DB) |
| 5 I-69 over Patoka River Bridges (DB) | 10 Bridging Kentucky |

LEGEND

- ★ SR-32 PDB Project
- * Scope relevance to SR-32
- ** Geographic relevance to SR-32
- *** Flexibility required with GCs and/or adjacent developments



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4.2.2.3 KEY PERSONNEL EXPERIENCE



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4.2.2.3 KEY PERSONNEL EXPERIENCE

PROJECT MANAGER

Bobby Steele



Bobby Steele is the project manager and will be the single point of contact on all matters for our team. He has been involved with several alternative delivery pursuits and builds, countless traditional design-bid-build projects, and a handful of value engineering projects. In his years of vast experience, he has had an incredible balance of workloads, which allows him to estimate and manage projects across all six INDOT districts and two KYTC districts. Undoubtedly, Bobby's progressive thinking will allow him to service INDOT on their first PDB delivery and support the program for years to come.

9

Years of
Experience

26

Projects
Managed

6

Accepted Cost Reduction
Incentives (CRI) in the Last Year

Leadership Highlight:

Besides teaming on specific projects, Bobby has teamed with industry partners in various ways. Bobby serves on the INDOT / ICI Bridge Subcommittee to assist with standards and specifications allowing him to stay ahead of industry challenges. He also actively participates in the Indiana Transportation Team (ITT) and has presented at Purdue Road School on various topics. Most recently, Bobby has been added to an INDOT task force to assist in the guidance of value engineering, specifically in CRI's, to improve the program. Bobby's teaming approach puts industry first, as he is not afraid to show his cards to make all parties better. Bobby truly embraces the Kaizen mindset, which embodies lean thinking, continuous improvement and long-term people development.

SR-28940 I-65 Added Travel Lanes Jackson and Bartholomew Counties, Indiana. Indiana Department of Transportation. **BRIDGE PROJECT MANAGER.** This was E&B Paving's first Design-Build Best Value Project in which E&B Paving self-performed nearly 90% of the work with the help of their sister company Specialties Company. Bobby was involved at the beginning of the design phase at the start of 2017 where he helped develop the project management plan, incident management plan, and site-specific safety plan. As staff were added to the project, Bobby moved from Assistant Project Manager to Bridge Project Manager which encompassed the oversight of the bridge scope of the project. Bobby supported the project's design development, identified value engineering solutions, maintained and documented all submittals and RFIs, assisted in the maintenance of the overall schedule, assistance with material procurement, among other tasks. This project was broken out into buildable units to allow construction to begin on specific project segments while the design was still being completed. Near the end of the project, an intersection modification was added, which impacted the already-designed ramps and shoulders. E&B Paving worked with INDOT and the designer to accommodate this change. This Design-Build Best Value-Fixed Price with Scope Ladder project provided 14 miles of interstate widening and reconstruction, along with four miles of resurfacing, interchange modification, two roundabouts, and 27 bridges with varying scopes over roads, waterways, and railroads. Contract: \$154 million; Bridge Scope: \$31 million

CONTACT: Gary Kreutzjans | 812- 525-9306 | gkreutzjans@indot.in.gov



E&B PAVING

Education

B.S., Construction
Management, Purdue
University

Minor in Construction
Surveying &
Engineering

Minor in Organization
Leadership &
Supervision

Licenses/ Certifications

Dale Carnegie
Leadership Courses

OSHA 10-Hour, 2014

OSHA 30-Hour, 2016

INDOT Stormwater
Level 1, 2018

Affiliated with
INDOT / ICI Bridge
Subcommittee



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PROJECT MANAGER

Bobby Steele (Continued)

I-69 Section 6, Contract 4 Morgan & Johnson Counties Indiana. Indiana Department of Transportation. **PROJECT MANAGER.** E&B was a subcontractor on this major project and provided various scopes of work to the prime contractor including Asphalt and Concrete Paving, Concrete Flatwork, and Bridge Work. Bobby provided estimating services prior to the project award and was responsible for coordination with the prime contractor, all submittals and RFI's, bridge schedule and material procurement. Bobby also provided coordination with other contractors and other contracts within close vicinity to avoid MOT conflicts. E&B's scope included two new intersections, seven roundabouts, architectural aesthetic finishes, frontage roads and seven bridges and seven MSE walls equal to 50,000 SFT. E&B Paving's estimated construction value was \$60.6 million.

CONTACT: Chad Nierman | 317-694-8292 | d30nier@indot.in.gov

US52 in Marion, Hancock, and Shelby Counties, Indiana. Indiana Department of Transportation. **PROJECT MANAGER.** Responsible as estimator and project manager coordinating operations on the corridor, all submittals, RFIs, bridge schedule, material procurement, and utility coordination. E&B Paving accommodated a change in the contract to add a passing blister at a dangerous 'T' intersection. E&B Paving worked with local officials and school administrators in New Palestine to modify the MOT requirements in the contract to lessen impacts on the school and its annual festival. This Design-Bid-Build project included 18 miles of patching and resurfacing through Marion, Hancock and Shelby Counties on US 52, a new roundabout intersection, concrete patching, and bridge work (5 bridges: 1 replacement | 4 rehabs). Contract: \$23.5 million



CONTACT: Rob Goldner | 765-316-1267 | rgoldner1@indot.in.gov

I-265 Clark and Floyd Counties, Indiana. Indiana Department of Transportation. **VALUE ENGINEERING COORDINATOR.** Supported all value engineering efforts on this project. Managed innovation tracking, risk identification, and cost estimates. Coordinated with agency heads on redesign changes. Responsible for the overall management of the redesign firm and preconstruction efforts. Bobby showcased his ability to provide significant value to INDOT and the traveling public with the two CRIs proposed and accepted on this contract. Six bridges were completed in six weekends with his value engineering proposal in lieu of seven months as originally designed and advertised. This Design Bid Build project included 11 bridges of various scopes (one interstate ramp over interstate | two local roads over interstate | six bridges over waterways | and two bridges over railroad). Contract: \$22.9 million

CONTACT: Ryan Cox | 812-569-3198 | rycox@indot.in.gov

SR22 Grant County, Indiana. Indiana Department of Transportation. **BRIDGE PROJECT MANAGER.** Supported the value engineering efforts on this project for the railroad. Assisted in the utility coordination on the front end of the project. Supported the redesign from the university to highlight responsibilities to ensure timely execution. Worked with INDOT/designer/utilities closely, responsible for preconstruction activities, deliverables, and corridor impacts through town. This Design Bid Build project included two miles of reconstruction through the town of Upland and Taylor University, new bike and pedestrian facilities along the corridor, and superstructure replacement over a railroad. Contract: \$18.2 million

CONTACT: Brad Taylor | 260-438-2063 | brtaylor@indot.in.gov



Matt Wichman



Matt has extensive experience providing construction inspection and project oversight for a variety of transportation and aviation projects. His career began as an inspector after graduating from Purdue and he advanced in the construction services industry overseeing INDOT and LPA projects ranging from ADA curb ramp rehabilitations to new terrain interstates before advancing to a department manager role managing up to 20 staff statewide. Since joining Michael Baker, Matt has taken on the role of a technical manager providing project management,

constructability reviews for both inspection and design, and technical support to construction staff while collaborating with contractors and INDOT through the Indiana Transportation Team (ITT), Indiana Constructors, Inc. (ICI), and other industry organizations.

23 Years of Experience

100+ Projects Managed in the Last 5 Years

11 Construction Inspection Oversights in the Last Decade

Team Collaboration Highlight:

While serving as the Project Engineer on R-30321, Matt worked closely with the E&B Superintendent, Todd Boone. Todd always provided status reports for E&B Paving and their subcontractors. As with most projects, there were many challenges, but we collaborated in a partnering mindset providing solutions that, first and foremost, allowed the project to progress in a positive trajectory while keeping the budget in mind and being fair to all parties. This relationship led to an open and honest approach when looking ahead at upcoming work and being able to address potential challenges. By working in this manner, decisions were able to be made at appropriate levels in a time frame that reduced or eliminated delays to work.

Construction Inspection Services On-Call, Seymour District, Indiana. Indiana Department of Transportation. **CONSTRUCTION MANAGER.** Project manager for four assignments providing technical support and field assistance to staff as needed. Michael Baker is providing construction inspection services for the Seymour District as project needs arise. Matt currently serves as the Project Manager on four assignments providing technical support to inspection staff regarding project specifications and testing, making field visits to answer questions, and assisting with coordinating questions or changes in the field to the designer as they arise.

CONTACT: Rachel Wren, PE | 812-525-9407 | rwren@indot.in.gov

R-30321 SR26 Major Pavement Rehabilitation, Howard County, Indiana. Indiana Department of Transportation, Greenfield District. **PROJECT ENGINEER.** Responsibilities within the corporate limits of Russiaville encompassed the removal and replacement of pavement, installation of new curbs and sidewalks, a new storm sewer drainage system, removal of multiple underground storage tanks (UST), and extensive utility relocations. The project also included the rehabilitation of an earth-filled arch bridge that required additional demolition and rehabilitation due to the deterioration of the structure. Matt was responsible for ensuring the contractor built the project according to INDOT standard specifications and testing requirements. At the start of the project, Matt performed a constructability review of the plans which revealed discrepancies in pipe lengths with several of the large cross pipes. He also found significant areas of silt fence called for in locations that were not providing protection and an instance where a potential wetland had no planned measures. Matt coordinated with the designer on these issues and the appropriate changes were made to the plans and/or adjustments were made in the field to incorporate the revisions. Matt coordinated phased utility relocations throughout much of the project between the contractor and utilities to ensure the schedule stayed intact as well as requiring the utilities to come back and restore vegetation they had disturbed in areas beyond the construction limits but inside the right of way. Though seeding and mulch are not a high-dollar items, on a seven-miles project with work on both sides of the road, the quantity would have been significant. Matt worked with business owners in the town as well as the volunteer fire department as the phased work

Michael Baker
INTERNATIONAL

Education

B.S.C.E., Purdue University

Licenses/ Certifications

INDOT Certified Utility Coordinator, Indiana, 2023

INDOT CTP: All 6 exams, 2002

INDOT SiteManager Project Engineer/ Supervisor, Indiana, 2016

ATSSA Traffic Control Technician (TCT), Indiana, 2020, 787223

OSHA 30-Hour Construction Outreach Training, Indiana, 2018, 7661_1481560

Professional Affiliations

American Council of Engineering Companies of Indiana (ACEC/Indiana)



E&B PAVING

Michael Baker

INTERNATIONAL

Matt Wichman (Continued)

closed portions of SR 26 through town. This became more complicated while removing what would be over a dozen USTs across from the fire department entrance as a large hole was created to retrieve tanks and remove contaminated soils. \$12M.

CONTACT: James Colonis, PE | 317-467-3964 | jcolonis@indot.in.gov

Ronald Reagan Parkway Improvements from US36 to CR300N, Avon, Indiana. City of Avon. PROJECT ENGINEER. Responsible for the inspection of a multi-phase contract which included one mile of HMA Full Depth Reclamation, three miles of newly constructed two-lane roadway, and two miles of two-lane HMA resurfacing. New or revitalized signalization was required at the four intersections along Ronald Reagan Parkway. New 10' wide pedestrian trails parallel the project with trail safety fences as appropriate. Matt provided project oversight ensuring the project was built in accordance with contract documents and specifications utilizing up to three inspectors over multiple seasons. Though a locally funded project, construction materials were tested based on the INDOT Frequency Manual. Matt coordinated with his inspection staff to provide testing as well as a third-party testing firm for the HMA materials and proctors. As the project extended through three municipalities, Matt made sure the owners were kept informed through regular progress meetings and a weekly newsletter sent out with photos that could be used on social media to keep the residents apprised of restrictions/closures and the progress of the project. Before the project began Matt performed a constructability review of the plans and was able to save the owner over \$885,000 as well as future maintenance costs by reducing the 8,800 linear feet of slotted drain called for in the plans, down to just 1,200 linear feet. Despite \$427,000 in extra work, the project came in less than 1% over the bid amount. Due to the extra work, the duration of the project overran by six months but through proactive management and only using staff when there was a need, Matt was able to save the owner over \$100,000 in inspection fees. \$10M.

CONTACT: Ryan Cannon | 317-272-0948 | rcannon@avon.in.gov

R-39584 Pedestrian Safety Improvement Project, Brownsburg, Indiana. Town of Brownsburg. PROJECT ENGINEER. This pedestrian safety improvement project included new ADA compliant curb ramps, crosswalk markings and signage, installation of 31 solar-powered school zone flasher assemblies, and 10 Rectangular Rapid Flashing Beacon (RRFB) assemblies. Prior to construction, Matt initiated a constructability review to confirm all elements of the project would be ADA compliant upon completion. Through this review, plan sheets were revised to correct constructability issues found. Starting with the pre-construction meeting, Matt met regularly with the contractor, INDOT Area Engineer, Town of Brownsburg, and affected stakeholders. He was responsible for the project oversight ensuring accurate payment and change management as well as making sure construction practices and materials met quality standards and verifying all components met Made in America requirements. Additionally, he worked with the contractor to verify that all 31 of the solar-powered assemblies were located in an area where the solar panels would receive full sun exposure. This project was completed on time and under budget. \$1.1M. Project success story:

- Matt coordinated with INDOT on construction changes using participating funds to implement turning radii improvements at one intersection where school buses were visibly encroaching on curb ramps in the field. Town savings: \$36,000.
- Matt coordinated the redesign of six curb ramps determined to be non-compliant as part of a Preconstruction Plan Review.
- Original design plans did not include modems for ease of updating school zone flasher timing patterns. Matt coordinated with INDOT to add modems to the contract using participating funds. Town savings: \$76,300.
- Total Town savings: \$122,990. Final Contract amount: \$1,086,428. Total Savings Realized by Town: 11.3% of Construction Cost.

CONTACT: Shawn Pabst | 317-852-1120 | spabst@brownsburg.org

EN-346 Nickel Plate Trail, Noblesville, Indiana. City of Noblesville. CONSTRUCTION MANAGER. Served as the PM for the construction of this project, assisting the Project Supervisor with technical questions, filled in on the project when necessary and handled client relations. The 2.7-mile trail was built using a DNR Next Level Trails grant and extends from 146th St. to Pleasant Street. The project constructed a 12-foot-wide path on top of existing railroad ballast, rehabilitated two existing railroad bridges, and added pedestrian facilities including trail mile markers/medallions and benches. There were challenges with clearing out dead or low-hanging trees that lined most of the trail, additional deterioration to the existing steel bridge structure that required additional repairs to members, and progressing work with limited ingress/egress due to neighborhoods paralleling most of the trail. \$2.3M.



Steve Varner, PE



The Construction Quality Manager plays a crucial role in the successful execution of any highway project, particularly those using alternative delivery methods like the SR 32 project. In his position as Vice President of Project Delivery, Steve performs these functions on a daily basis. He works with design consultants on the pursuit and design of design-build projects, he reviews plans, change orders, cost reduction incentive proposals, procurement documents, contracts, subcontracts, and subcontractor and supplier pricing and agreements. Steve assists in the development and assessment of risk registers during project pursuit

and construction. He provides leadership and mentoring to dedicated project personnel to promote safety, quality, and partnering. Participation in "5-why" meetings related to safety and quality issues is an important function that Steve participates in leading to both improved safety and quality. As a seasoned veteran of heavy highway construction, Steve's involvement in projects starts at the pursuit phase and does not end until the successful completion of the project.

39 Years of
Experience

20+ Years with
E&B Paving

5 Years as an
INDOT PE/PS

\$2B In Construction
Projects

Team Collaboration Experience:

Steve is fully committed to the partnering philosophy. Examples of Steve's commitment include managing INDOT projects with co-office locations, serving on the INDOT ITT Central Office Committee, serving as the Board of Directors President for the statewide Asphalt Paving Association of Indiana, voluntarily working with INDOT's Division of Materials and Tests to allow testing on E&B Paving projects as they research the potential for performance-based testing to sitting down for a cup of coffee or lunch to get to know one another better. Steve truly believes that "If everyone is moving forward together, then success takes care of itself."



E&B PAVING

Education

B.S.C.E., Rose-Hulman Institute of Technology

Licenses/ Certifications

Professional Engineer, Indiana, 1991, PE60910065

IR-35600 U.S. 31, City of Carmel, Hamilton County, Indiana. Indiana Department of Transportation. **PROJECT MANAGER** for the duration of the project responsible for daily oversight of all construction activities, construction administration, subcontractor management, stakeholder engagement, and project quality. Successfully completed this challenging multi-phase \$140M project by working in partnership with INDOT, the City of Carmel, Hamilton County, Emergency Service organizations, local schools and three local hospitals. Utilized a shared office location to enable easy daily communication and partnering on the project. This project included several revisions and MOT changes that required coordination and lots of public outreach and communication to keep all affected parties informed. The scope included road replacement and widening, interstate interchange realignment, bridge construction, and multiple new interchange configurations with local roads. This project impacted many existing businesses, hospitals, daily commuters, active private developments, and a busy interstate interchange.

CONTACT: Elsadig Ibrahim | 317-226-5323 | elsadig.ibrahim@DOT.GOV

SR-28940 I-65 Southeast Added Travel Lane, Seymour and Columbus Counties, Indiana. Indiana Department of Transportation. **PROJECT DELIVERY MANAGER.**

Worked in conjunction with E&B Paving's Project Manager, Assistant Project Manager, Bridge Superintendent, Grading Superintendent, and the overall Project Superintendent to provide oversight and supervision to their daily activities related to construction, administration, schedule management, subcontractor management, and construction quality. Attended all internal and external progress and planning meetings, involved with change order negotiations, participated in our DBE Outreach event, prepared all contractor documents for the successful Public-Private-Partnership contract execution, attended all partnering meetings, and was available to



E&B PAVING

Michael Baker

INTERNATIONAL

Steve Varner, PE (CONTINUED)

project personnel at all times. During this Design-Build Best Value project, Steve's responsibilities included negotiating and retaining our design consultant; overseeing the process of proposal development and submission; completing the contractor responsibilities related to contract execution; facilitating the design development process; contents and schedule; review of project job cost data and projections; the review of all material quality test results; and served as a higher-level resolution option for issues that were not solvable at lower levels. The \$154 million project included 14 miles of reconstructed pavement, three miles of resurfaced pavement, 20 rehabilitated/widened interstate bridges, seven rehabilitated overpass bridges, and a redesigned SR 11 interchange with a roundabout. This project included 472,000 CYS of earthwork and pavement removal, 16,500 LFT of drainage structures, and 906,800 SYS of concrete paving.

CONTACT: Gary Kreutzjans | 812-525-9306 | gkreutzjans@INDOT.IN.GOV

R-41841-A Interstate Added Travel Lane Project in Boone County Counties, Indiana. Indiana Department of Transportation. **VICE PRESIDENT PROJECT DELIVERY.** Worked closely with E&B Paving's Project Manager and Project Superintendent to provide oversight and supervision to their daily activities related to construction, administration, subcontractor management, and construction quality. This was a high-traffic interstate and multiple-phased project requiring good communication and flexibility in our construction approach. Steve worked closely with the dedicated E&B personnel on the job as we successfully proposed a CRI to assist with MOT, worked through design changes during the project, voluntarily worked with the INDOT Division of Materials and Tests to allow them to conduct some performance testing for future use and attended progress meetings to provide general oversight related to project administration and partnering efforts. This \$83M interstate added travel lane project in Boone County included multiple phases for the construction of mass dirt work, storm sewer installation, concrete pavement, bridge widening, small structure installation, and various other elements. This project required coordination with the Indiana State Police, INDOT Traffic Center, and the City of Lebanon.

CONTACT: Jacob Cunningham | PARSONS | 317-797-0353 | jacob.cunningham@PARSONS.COM

R-38526-A Clear Path Contract 1 & R-43518-A Clear Path Contract 2, Indiana. Indiana Department of Transportation. **VICE PRESIDENT PROJECT DELIVERY.** These projects are at I-465 and I-69 north interchange, a high-traffic interstate interchange reconstructed with multiple phased projects. Both connecting challenging projects are being built by a tri-venture contractor team that includes E&B Paving. E&B Paving is the lead contractor on the Clear Path 1 project, responsible for being the lead point of contact for the tri-venture team and retaining all administrative and management responsibilities. The anticipated total construction cost is \$475M. Steve's project involvement started with the creation of the tri-venture, continued throughout the bidding process, and continues as construction advances. Steve is responsible for oversight and mentorship to the dedicated E&B Paving Project Manager and their team, reviewing project schedules, reviewing project job cost reports, attending project progress meetings as available, reviewing construction quality by analysis of QC/QA reports and site inspections and being available to E&B Paving project personnel, INDOT, INDOT's representatives and the tri-venture partners as needed.

CONTACT: James Colonis | 855-463-6848 | jcolonis@INDOT.IN.GOV



Chad Hartwick, PE



Chad Hartwick is the lead estimator and is responsible for leading the estimating efforts while complying with the open-book process and reaching an agreement for each Pricing Milestone Estimate (PME) and the GMP for the Project. Chad's role as the Senior Estimator for E&B Paving demonstrates the incredible experience and ability that Chad has. Chad has provided estimates for bidding purposes on many interstate projects including the Clear Path projects, the recently completed I-65 added travel lane project in Boone County, and I-70 in Hancock and Henry Counties. He is also involved in every single alternative

delivery pursuit in Indiana and Kentucky. Chad's relationships with many, many vendors, suppliers, and subcontractors will serve this project well. Chad is the clear choice to serve as the Lead Estimator for our Team.

30 Years of Experience **4** Years as INDOT PE/PS **50+** Multi-Million Dollar Estimates **12** Alternative Delivery Project Pursuits

Team Collaboration Highlight:

Chad's teaming efforts involve not only serving as Lead Estimator on several projects but also being the Bid Coordinator. This role sets up and runs meetings with Bid Partners (other contractors and subcontractors) sometimes for several months prior to submitting the final bid. Chad also participates in several industry-related organizations / groups.

- Past > Indiana Transportation Team (ITT) Greenfield District Steering Committee
 - ICI / INDOT Joint Coop Central Committee
 - APAI Work Force Development Committee
- Current > ICI / INDOT Joint Coop Statewide Committees
 - APAI Materials & Construction
 - APAI Board of Directors

R-38526-A Clear Path Contract 1, Indiana. Indiana Department of Transportation. **LEAD ESTIMATOR.** E&B Paving served as the Lead Contractor on this contract with Chad serving as the Lead Estimator. Chad coordinated with other lead estimators from our Tri-Venture partners. He managed all aspects of the bid process for our team for the six weeks leading up to the bid and engaged potential subcontractors and suppliers for the best opportunity to meet DBE requirements. His responsibilities included: performing a complete project quantity takeoff per pay item as well as evaluating constructability using planned MOT; communicating material need and timeline to suppliers; completing bid pricing for E&B Paving to self-performed work; collecting all pricing from JV partners, subcontractors, and suppliers; submitting a final bid to INDOT; setting up project for an accounting system and creating documents needed for construction for E&B Paving and INDOT personnel. The R-38526-A contract is located at the I-465 and I-69 North interchange and is a high- traffic interstate and is a multiple-phase project. The multiple scopes included on this contract encompasses the following: utility relocations, MOT (temporary concrete barrier wall), grade/drain, MSE wall, bridge, HMA pavement, CRCP pavement, PCCP pavement, median barrier wall, sound wall, signs/lighting, among other disciplines. Estimate Value: \$174.3 Million

CONTACT: James Colonis | 855-463-6848 | jcolonis@INDOT.IN.GOV

R-40616-A, I-70 Rehabilitation between SR 9 and SR 109, Hancock & Henry Counties, Indiana. Indiana Department of Transportation. **LEAD ESTIMATOR.** Chad led the pursuit of this contract, analyzed the bid documents to ensure all scopes were covered, issued bid solicitations to subcontractors and suppliers, and compiled a risk matrix for upper management review. This contract was on I-70 spanning two counties and included median crossovers, asphalt



E&B PAVING

Education

B.S.C.E., Purdue University

Licenses/ Certifications

Professional Engineer, Indiana, 1999, PE19900090

OSHA 30

LEED AP

INDOT SWQCP

Dale Carnegie Leadership Courses

APAI Leadership Development



E&B PAVING

Michael Baker
INTERNATIONAL

Chad Hartwick, PE (CONTINUED)

resurfacing, concrete patching, bridge deck overlay, and thin deck overlays. Due to resource availability on this fast-paced contract, E&B ended up teaming up with two major competitors to perform concrete patching and shoulder resurfacing. The multiple scopes included: MOT (temporary concrete barrier wall), grade/drain, bridge, HMA pavement, PCCP patching (w/ lean concrete base underneath), strip and pavement interlayer fabric, signs/lighting, among other scopes. Estimate Value: \$30.9 Million

CONTACT: James Colonis | 855-463-6848 | jcolonis@INDOT.IN.GOV

R-41841-A I-65 Added Travel Lanes in Lebanon, Indiana. Indiana Department of Transportation. **LEAD ESTIMATOR.** Chad's responsibilities were setting up the estimate, reviewing contract documents, scoping the project for solicitation of bid packages to major subcontractors, evaluating constructability using planned MOT, communicating material needs and timeline to supplier, and submitting the final bid to INDOT. This Interstate added travel lane project in Boone County included multiple phases for the construction of mass dirt work, storm sewer installation, concrete pavement, bridge widening, small structure installation, and various other elements. E&B Paving was the low bidder amongst four bidders and was 10.7% lower than the engineer's estimate. Estimate Value: \$83.7 Million

CONTACT: Dave Holtz | 855-463-6848 | dholtz@indot.in.gov

White River Innovation District Indianapolis, Indiana. Indianapolis Department of Public Works. **LEAD ESTIMATOR.** This alternative delivery project pursuit was a combined effort with a general contractor (FA Wilhelm) and E&B listed as a dedicated subcontractor. The project was an Indy DPW BOT project (Build, Operate, Transfer). E&B's scope included a stone subbase, concrete curb, sidewalk (asphalt and concrete), and asphalt for the roadways in the development. E&B also had its own subcontractors for the lighting, signage, signals, and pavement markings scopes of the project. E&B prepared and submitted itemized & package pricing for the above-mentioned scopes to FA Wilhelm for their final bid submission. Estimate Value: \$9.1 Million

CONTACT: Brandon Herget | 317-327-4000 | brandon.herget@indy.gov

R-39231 I-65 Interchange Modifications and New Interchange Boone County, Indiana. Indiana Department of Transportation. **LEAD ESTIMATOR.** This project was bid in May 2020 and was a multiple-project contract. There were a total of eight projects on this single contract which involved three interchange modifications, a new interchange, three new bridges, and a bridge rehab. Chad facilitated the entire bid on this contract and due to the massive scope of the project, E&B solicited quotes from dirt contractors and bridge contractors to leverage E&B's position to win the contract. Chad's responsibilities included setting up the estimate, performing quantity take-offs, soliciting quotes from subcontractors and suppliers, performing production-based estimates, and submitting the bid to INDOT. Of the five bidders who bid the contract, E&B was the only bidder under the engineer's estimate. Estimate Value: \$62.9 Million

Contact: Dave Holtz | 855-463-6848 | dholtz@indot.in.gov



Thomas Vowels, PE



Thomas is a construction engineer with experience in various capacities. His duties have increased from inspection and material sampling up to managing small teams of employees on billion-dollar design-build contracts. He is detail-oriented, organized and specializes in process improvements. He has coordinated in the past with Louisville Metro, KYTC, INDOT and MnDOT. Most recently, his responsibilities have been catered toward project controls, CPM scheduling with Primavera P6, and data analysis and visualization.

16 Years of Experience

6 Alternative Delivery Projects

124 Baseline / Update Schedules

Team Collaboration Highlight:

While serving as the Construction Oversight Team's Project Controls Manager for the Louisville-Southern Indiana Ohio River Bridges Project, Thomas had the honor of working on Kentucky's largest ever Design-Build project completed to date. The team consisted of 60+ personnel from 8 different companies. Collaboration, communication and organization were vital to leading the effort to audit-proof the team's final deliverable package to the clients, KYTC and INDOT. This monumental infrastructure initiative was crucial in reducing congestion and improving safety for the region. The agile coordination of this multi-faceted group of professionals was essential to the overall success of the project.

KYTC Owner's Representative for I-265/I-71 Construction, Kentucky. Kentucky Transportation Cabinet. **PROJECT ENGINEER.** Responsibilities included reviewing and reporting on monthly Critical Path Method (CPM) updates and maintaining the Earned Value Management System (EVMS) using data from Primavera P6 to audit payments to the DBT. Assisted the project controls manager in key role tracking and processing project-related documentation and fulfilling materials sampling requirements to finalize deliverables to the client. Michael Baker provided technical advisor services for the procurement process through the final award and construction inspection for I-265/I-71 construction in Kentucky. Michael Baker assisted in developing the design-build procurement documents; provided coordination with the client and railroad; provided concepts for potential project elements; coordinated geotechnical elements; performed traffic model design for the US 60 and I-265 interchange; managed metallurgical inspection; and performed bridge condition inspections.

CONTACT: Scott Tipton, PE | 502-544-5917 | scott.tipton@ky.gov

I-69 ORX Section 1 CEI in Henderson Co. Kentucky Transportation Cabinet. PROJECT CONTROLS SPECIALIST. Responsible for maintaining the Earned Value Management System (EVMS) using data from Primavera P6 to audit payments to the DBT as well as reviewing and reporting on monthly Critical Path Method (CPM) updates. Assisted the project controls manager in tracking and processing project-related documentation and fulfilling materials sampling requirements to finalize deliverables to the client.

CONTACT: Emily Deason, PE | 502-564-4890 | emily.deason@ky.gov

I-494 Airport I-35W Interchange to Highway 169 First Construction Design-Build Project, Minnesota. Minnesota Department of Transportation. **SCHEDULER.** Michael Baker is providing preliminary and final design for I-494 and I-35 West as part of a design-build effort. The goal of the project is to reduce traffic congestion and improve safety on the highway. This project is deemed the largest design-build to date in Minnesota. Thomas is responsible for updating the contractor's Primavera P6 schedule with progress from the MBI design team. He is continuously

Michael Baker
INTERNATIONAL

Education

M.Eng., Civil Engineering/
Environmental Engineering,
University of Louisville, J.B. Speed School of Engineering

Licenses/ Certifications

Professional Engineer, Kentucky, 2011, 28370

Professional Engineer, Indiana, 2017, 11700139

KyTC Aggregate Sampling Technician, Kentucky, 2022

KyTC Asphalt Field Technician, Kentucky, 2010

KyTC Structures Inspector Level I, Kentucky, 2021

KyTC Work Zone Traffic Control Supervisor, Kentucky, 2023

ACI Technician Level 1, Kentucky, 2020

(continued)



E&B PAVING

Michael Baker
INTERNATIONAL

Thomas Vowels, PE (CONTINUED)

coordinating with the design team to ensure updates are accurate and compatible with the existing logic within the .xer file and tracking financials correlating SOVs with subsequent invoicing.

CONTACT: Greg Asche, PE | 651-775-1168 | greg.asche@state.mn.us

U.S. 51 Cairo Bridge Replacement, Wickliffe, Kentucky and Cairo, Illinois. Kentucky Transportation Cabinet. **SCHEDULER.** Responsible for reviewing and reporting on Critical Path Method (CPM) updates for the internal design team. Michael Baker is providing preliminary engineering and environmental services to replace the National Register-eligible, 82-year-old U.S. 51 Cairo Bridge. This vital connection, which stands over a mile long with a cantilever truss and approach spans, is located between Wickliffe, Kentucky, and Cairo, Illinois, near the confluence of the Ohio and Mississippi Rivers. The goal of the project is to provide a constructible and affordable structure that will improve safety and the substandard load capacity of the geometrically deficient historic bridge caused by narrow lane widths, lack of shoulders, and the tight curve of the existing bridge and its approaches.

CONTACT: Austin Hart, PE | 270-898-2431 | austin.hart@ky.gov

Replace the highway structure on I-264 over the P&L Railroad. Kentucky Transportation Cabinet. **SCHEDULER.** Created baseline schedule in Primavera P6 software. Established activities, durations, and logical relationships to facilitate Project Manager needs And Maintain Future Schedule Updates.

CONTACT: Charles Berger, PE | 502-764-0488 | chuck.berger@ky.gov

KYTC AGT 2023-04-01. Kentucky Transportation Cabinet. **SCHEDULER.** Reviewed project baseline schedule and developed checklist and report detailing contract compliance as well as recommendations to resolve points of non-compliance.

CONTACT: Scott Tipton, PE | 502-544-5917 | scott.tipton@ky.gov

Sherman Minton Corridor Project: Phase I Design-Build Procurement Support, New Albany, Indiana. Indiana Department of Transportation. **PROJECT CONTROLS SPECIALIST.** Responsible for developing and maintaining Power BI Dashboard and Reports in order to assist design reviewers, project managers, and document controls staff. Michael Baker is providing preliminary engineering support and environmental services for the design-build rehabilitation of the Sherman Minton Bridge in New Albany, Indiana. Services include project management, agency coordination, environmental documentation, preliminary engineering and design, and utility coordination.

CONTACT: Daniel Corbin, AICP | 317-914-4977 | dcorbin@indot.in.gov

Sherman Minton Corridor Phase 1, New Albany, Indiana. Indiana Department of Transportation. **PROJECT CONTROLS SPECIALIST.** Responsible for developing and maintaining Power BI Dashboard and Reports in order to assist design reviewers, project managers, and document controls staff. Michael Baker provided preliminary engineering support and environmental services for the design-build rehabilitation of the Sherman Minton Bridge in New Albany, Indiana. Services include project management, agency coordination, environmental documentation, preliminary engineering and design, and utility coordination.

CONTACT: Daniel Corbin, AICP | 317-914-4977 | dcorbin@indot.in.gov

Sherman Minton Corridor Project Phase 3, New Albany, Indiana. Indiana Department of Transportation. **PROJECT CONTROLS SPECIALIST.** Responsible for developing and maintaining the Power BI Dashboard and Reports in order to assist design reviewers, project managers, and document controls staff.

CONTACT: Daniel Corbin, AICP | 317-914-4977 | dcorbin@indot.in.gov

Michael Baker
INTERNATIONAL

Professional Affiliations

American Society of Civil Engineers (ASCE)

Chi Epsilon, The National Civil Engineering Honor Society

Society of American Military Engineers (SAME)



Julie Thurman, PE, DBIA*



Julie has focused the majority of the last 25 years of her career working on design-build projects both in Indiana and across the country. She thrives on the challenges and complexities these projects present. Her journey into design-build began with INDOT's first Design-Build project on I-65 from I-465 to W. 38th Street in Marion County in 2000, where she served as one of the lead roadway designers collaborating closely with the contractor. Over the years, she has contributed to more than fourteen successful alternative delivery projects, with construction costs ranging from \$30M to \$1B, and has been involved

in numerous other pursuits, advancing designs to nearly 30% for the proposal phase. Her extensive experience across multiple states has provided her with a wealth of knowledge and lessons learned. Today, she remains one of Michael Baker's foremost Design Managers for alternative delivery projects.

As part of a design-build management and delivery team, she has contributed to numerous projects in various roles, from the owner's side and initial design phases to serving as the contractor's engineer of record. She has a keen understanding of the contractor's perspective, particularly in identifying innovative, cost-saving alternatives and knowing when to pursue design exceptions to reduce construction costs. Her extensive experience in plan review, combined with her broad design expertise, enables her to balance the needs of both the owner and the contractor effectively. This makes her an excellent choice to assist INDOT in delivering its first Progressive Design-Build Project.

33 Years of Experience

14 Alternative Delivery Projects

6 Years Working for INDOT Design

Team Collaboration Highlight:

Julie first began working with E&B Paving on the I-65 Added Travel Lanes Project from Sellersburg to Memphis while serving as the Owner's Representative for INDOT. They were the successful low bidder on that design-build project. She became better acquainted with Steve Varner and other E&B staff during the procurement phase for the I-69 ATL DB project in Madison and Delaware Counties. The relationships continued to develop with both firms looking for the right opportunity to team together on the right project. They had the opportunity to work together on ORX, Section 1 both as subs but unfortunately, were not on the successful team for that project. We have been selective about our pursuits, but both firms are in agreement that the SR 32 Progressive Design-Build Project is a perfect fit for E&B and Michael Baker to bring the most benefit to INDOT!

I-2/I-69C Interchange and I-2 Reconstruction Design-Build, Pharr, McAllen, and San Juan, Texas. Texas Department of Transportation. **DESIGN MANAGER.** Julie was responsible for the design management for the final design phase of the I-2/I-69C Design-Build project. This was the first design-build project to be completed in the Pharr District by TxDOT. Coordinated with the design team, contractor, and TxDOT during weekly meetings to communicate progress on plan sets and the schedule. This major transportation reconstruction project consisted of 7.8 miles of operational and safety improvements along I-2 in a rural-to-urban segment of the county. Roadway designs and alternative concepts were developed as MOT plans for efficiently redirecting traffic. Roadway, bridge, and MOT teams collaborated using 3D models to ensure designs met requirements set by the TxDOT for construction clearance, profile grades, design speeds, bridge removals, and work-zone traffic barrier clearances. Michael Baker's unique solution for construction allowed the contractor to construct three out of the four direct connectors using minimal closures.

CONTACT: Daniel Garcia | 956-358-6054 | dgarcia2@txdot.gov

Michael Baker

INTERNATIONAL

Education

B.S.C.E., Civil Engineering, Purdue University

Licenses/

Certifications

Design-Build Institute of America (DBIA) Professional – 2024*

Professional Engineer, Arkansas, 2018, 18115

Professional Engineer, Colorado, 2016, PE.0050945

Professional Engineer, Indiana, 1995, PE19500285

Professional Engineer - Civil, Kentucky, 2021, 36503

Professional Engineer, Louisiana, 2019, 43879

Professional Engineer - Civil, Minnesota, 2019, 57610



E&B PAVING

Michael Baker

INTERNATIONAL

* Pending final approval of DBIA

Julie Thurman, PE, DBIA* (CONTINUED)

I-69 Added Travel Lanes, Design-Build, Madison and Delaware Counties, Indiana. Indiana Department of Transportation. **PROJECT MANAGER.** Julie served as the project manager for this added travel lanes project serving as the owner's representative for the pre-bid phases of this expansion project to add travel lanes to I-69 from SR 38 to SR 109 in Madison County for a total of seven miles. An additional 7.5 miles of roadway from SR 109 to SR 67 will be constructed as a pavement overlay and patching project. Michael Baker provided surveying, environmental documents, utility coordination, and road and bridge design services necessary to produce 30% design plans and contract documents for the project which expanded the existing four-lane facility to six lanes by widening the median. Julie and her team worked extensively with INDOT's Greenfield District to finalize the evolving scope of the project and address issues with right-of-way within the project limits. Bi-weekly meetings were held with all disciplines to coordinate the progress and schedule of the project. The INDOT construction staff was integrally involved in producing a seamless construction transition with the adjacent project to the south. Julie facilitated kick-off meetings and multiple one-on-one meetings with each Design-Build team. The Michael Baker team reviewed the bid package plans and provided a design and constructability review for the final construction package.

CONTACT: Don McGhghy | 317-467-3920 | DMCGHGHY@INDOT.IN.GOV

I-65 Added Travel Lanes Design-Build, Clark County, Indiana. Indiana Department of Transportation. **PROJECT MANAGER.** Julie was the project manager for this added travel lanes project serving as the owner's representative for the pre-bid and post-bid phases of this expansion project to add travel lanes to I-65 from Old S.R. 311 to Memphis Road in Clark County for a total of eight miles. The project was let as a Design-Build project. The team coordinated extensively with INDOT's Seymour District regarding the proposed treatment for each of the structures within the project limits, including field inspections for all of the small structures. Julie facilitated kick-off meetings and multiple one-on-one meetings with each Design-Build team. Michael Baker provided survey, environmental, utility coordination, and road and bridge design services necessary to produce 30-percent plans and contract documents for an expansion project to add travel lanes to I-65 from Old S.R. 311 to Memphis Road. A total of eight bridges were rehabilitated in a design-build contract to expand the existing four-lane facility to six lanes by widening the median and separating the opposing traffic with double-faced guardrail. Michael Baker facilitated kick-off meetings and multiple one-on-one meetings with each design-build team, served as the owner's representative for the pre-bid and post-bid phases, and provided design and constructability review for the final construction package. E&B Paving was the successful bidder on this project.

CONTACT: Joe Bell | 859-806-1290 | jbell@hwcengineering.com

I-94 Design-Build Project, Maple Grove to Rogers, Minnesota. Minnesota Department of Transportation. **PROPOSAL DESIGN MANAGER.** During the proposal phase of this project, Julie served as the design manager for this project coordinating all aspects of design including roadway, structures, maintenance of traffic, drainage, and traffic design.

DESIGN QUALITY MANAGER. During the final design, Julie was responsible for the quality control of the design plans. She assisted the Quality Manager with the preparation of the design quality manual portion and verification of the quality process during the initial phases of the final design.

Michael Baker was the lead designer for the \$127M MnDOT I-94 Maple Grove to Rogers Design-Build Project. This project includes the design of an unbonded concrete overlay of I-94 from the I-494 / I-694/ I-94 (paving through the interchange) to TH 101 for a total of approximately 9.5 miles and the addition of a new lane in each direction from TH 610 to TH 101 for approximately 4.5 miles.

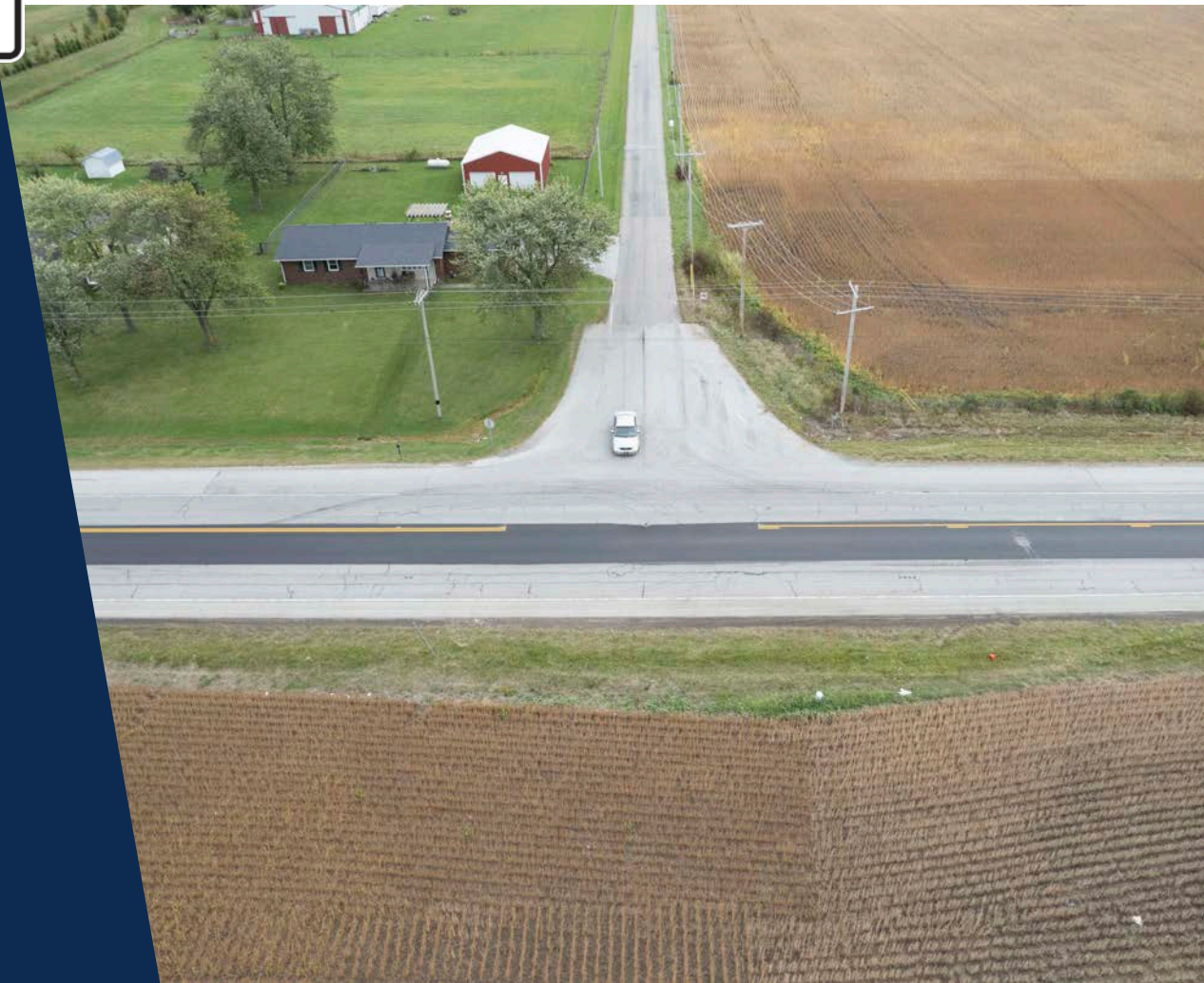
CONTACT: Dan Penn | 651-366-5147 | dan.penn@state.mn.us

I-494 Airport I-35W Interchange to Highway 169 First Construction Design-Build Project, Minnesota. Minnesota Department of Transportation. **DESIGN QUALITY MANAGER.** During the final design, Julie was responsible for the quality control of the design plans. She assisted the Quality Manager with the preparation of the Design Quality Management Plan and verification of the quality process during the final design. Oversaw the review to ensure that all quality protocols were followed for all design submittals. The project scope also includes the construction of 12 new bridges, including a new pedestrian bridge, more than 30 retaining walls, noise walls, and new drainage infrastructure. At \$377 million, the I-494: Airport to Hwy 169 First Construction Design-Build Project is MnDOT's largest design-build project to date. The I-494/I-35W interchange being reconstructed is the most heavily traveled interchange in Minnesota.

CONTACT: Greg Asche | 651-775-1168 | greg.asche@state.mn.us



4.2.2.4 PROJECT UNDERSTANDING AND APPROACH



E&B PAVING

Michael Baker
INTERNATIONAL

4.2.2.4 PROJECT UNDERSTANDING AND APPROACH

INTRODUCTION

We are excited to embark on INDOT's first Progressive Design-Build project with the team we have assembled. We are committed, understand the progressive design-build process, and believe we have a solid grasp of INDOT's expectations to complete and achieve or exceed all project goals by bringing an experienced, trusted team to execute what INDOT has already developed during the preliminary planning.

Under the leadership of Bobby Steele and Julie Thurman, our team has adopted a transparent and honest approach to developing plans and cost estimates. Bobby's attention to detail leads our team to meet or exceed the schedule, minimize environmental impacts, maximize the budget, and remain flexible throughout the project. Julie's certification from the Design-Build Institute of America (DBIA) is pending final approval as all steps have been completed. The DBIA certification training, updated in September 2024 to include the fundamentals of progressive design-build, provided valuable examples and insights into the differences between traditional and progressive design-build, enhancing our team's comprehensive understanding of the process.

Organized to Deliver a Progressive Design-Build Project

By leveraging our integrated design team approach, the E&B Paving | Michael Baker PDB team ensures a streamlined, cost-efficient, and high-quality design process that supports the collaborative nature of the progressive design-build process and schedule commitments. With the Resolution Group and Terracon joining our team as support, we bring together the combined expertise of local firms to leverage regional knowledge, identify risks, and provide alternative delivery solutions.

UNDERSTANDING



Progressive Design-Build Methodology

While progressive Design-Build is new to INDOT and most Indiana contractors and consultants, our team has a thorough understanding of the unique differences between traditional and progressive Design-Build. Our ability to work as an integrated team (INDOT/Designer/Contractor) during the design phase and implement changes seamlessly throughout both the preconstruction and construction phases, without being tied to a fixed scope and lump sum price, provides the flexibility needed for this project. This approach is particularly beneficial given the many unknowns as the development progresses. The collaborative efforts of our team and the ICE will ensure we aim to achieve a Guaranteed Maximum Price (GMP) acceptable to the Department. This process ensures transparency and fairness in pricing the Construction Work.

During the preconstruction phase, we will collaboratively develop the risk register, assigning mitigation strategies to the most appropriate parties. With progressive design-build, the design will advance to final Release for Construction (RFC) status with input from INDOT and the contractor as the risk matrix is developed. This contrasts with traditional design-build, where the lump sum price, risks, and scope are all based on preliminary design plans that are only about 25% complete.

Additionally, for this project, progressive Design-Build is the right approach to meet the required timeframe, given the political nature of the negotiations and commitments to attract industry to the LEAP District. This method allows flexibility in the design and construction, enabling quick changes that can expedite the construction on the private development side.

Meeting Project Goals and Fostering a Professional and Collaborative Team Environment

The E&B Paving | Michael Baker PDB team understands the goals for the SR 32 Realignment project and will leverage our integrated PDB team approach, ensuring a streamlined, cost-efficient, and high-quality design and construction processes that best support the collaborative nature of the progressive design-build process and schedule commitments.



(1) Maximize use of the Project budget to provide the best value to the Department;



(2) Minimize impacts to the natural and built environment;



(3) Incorporate innovative project management processes to maximize efficiency;



(4) Realize the benefits of progressive design-build project delivery;



(5) SR 32 open to traffic by October 1, 2026; and



(6) Remain flexible to react to development demands such as traffic, utilities, and requests for changes and new access points off SR 32 during the Preconstruction Phase and Construction Phase.





Project Specific

Our team understands the size, complexity, and enormous potential of the LEAP District. Uniquely situated on the I-65 Hard Tech Corridor with 9,000+ acres; this is a nationally significant development. Specifically, the SR 32 project corridor is flanked by “Mega Site” lots. As agreements for the development of these sites are finalized, potentially concurrent with the realignment of SR 32, our team will proactively coordinate with INDOT, American Structurepoint, and all stakeholders to ensure we remain flexible in our design and in our construction to accommodate the needs of these adjacent developments.

Specifically, we understand that our design and/or construction may need to change to accommodate access to these adjacent sites for site development, building construction, utility extension, or other activities. Our approach to construction phasing may need to be revised to allow us to be pliable to the needs of these developments. Additionally, drainage and detention requirements may also require collaborative design efforts to address the needs of both the roadway corridor and the impending development.

While our team is well-acquainted with the development in Boone County and has established relationships with most stakeholders from previous projects, we believe that we offer a **fresh perspective** to the LEAP District development, allowing us to absorb information and findings objectively from those who have been involved, without any preconceived notions. This enables us to question and explore alternatives more effectively.

PROJECT APPROACH



One Cohesive Team

E&B Paving and Michael Baker have cultivated an excellent working relationship over the years. This partnership began several years ago on the I-65 Added Travel Lanes Design-Build Project from Sellersburg to Memphis, Indiana, in Clark County. During this project, Michael Baker served as the owner's representative for INDOT, while E&B was the successful low bidder on the Design-Build Low-Bid project. While our connection with each other is strong, our PDB team stands ready to collaborate with INDOT, American Structurepoint, ICE, and others to create ONE cohesive team.

From the early engagement of the kick-off meeting to project closeout, we propose using formal and informal methods of communicating to enhance the effectiveness of our collective team. We commit ourselves to being forthright and vulnerable during partnering meetings, risk and innovation workshops, incident management and safety meetings, design review meetings, project milestone estimate reviews, and all other touchpoints to build trust and better define our shared goals.

This project will only be deemed successful if we are all successful. We will be successful because we will have common goals; we will communicate openly and honestly; we will use tools to enhance our collaboration; we will use performance metrics to gauge our progress; we will engage in conflict resolution quickly when needed; and we will celebrate our successes together.



PRECONSTRUCTION PHASE

The key personnel and firms understand the ten major preconstruction phase tasks outlined in Exhibit B of the draft agreement. While each task is its own deliverable, our team has grouped similar tasks together in an effort to demonstrate our approach and streamline these deliverables.

PROJECT MANAGEMENT AND PROJECT DEVELOPMENT (TASKS 1 & 2)



Coordination and Collaboration with the Department



Developing a collaborative relationship between INDOT and the E&B Paving | Michael Baker PDB team is essential to project delivery and is a critical component of our planning approach. The PDB team will collaborate with INDOT as a cohesive and integrated team, utilizing proven partnered delivery methodologies. Formal communication protocols will be used for design, preconstruction, and construction including work products, review comments, meeting minutes, reports, estimates, design tables, and all other deliverables. With the execution of the agreement planned for mid-December and deliverables being due within 30 days of execution, our team plans to host a kickoff meeting prior to the holiday hiatus to ensure no time is lost.

Given the extensive data developed by American Structurepoint (ASP) prior to the contract award, fostering a collaborative working environment is essential. Our teams will work alongside each other, handling various responsibilities to initiate construction. Permits, utility coordination, and completion of the environmental document will be key schedule drivers. Our design team will strive to complete plan development to keep all tasks on track for the start of construction in summer/fall 2025.



E&B Paving will initiate early engagement as the contractor in evaluating design refinements. We will have internally vetted refinements ready for INDOT to review and provide input. Each refinement will bring value to cost, schedule, and, potentially, third-party stakeholders. Input from our contractor partners will be key to determining the preferred refinements to advance during design. We anticipate Technical Working Groups (TWG), over-the-shoulder reviews, comment resolution meetings, and partnering meetings for receiving feedback as refinements are considered and recommendations from the contractor are further explored. To drive project progress, the PDB team's approach centers on consistently sharing real-time information and proactively identifying potential challenges while developing and discussing solutions. This proven structure provides the framework for ensuring clean and cohesive communication across the entire Project Team and is the backbone of our information distribution and decision-making model.



Manage and Deliver the RFP Scope

The scope of this project is anticipated to evolve through the progression of the preconstruction phase. As discussed previously and later on, our team plans to be flexible with changes during preconstruction and construction. Our team has identified some buildable units that will allow for construction to commence under a pricing package prior to the design being complete on the entire project. Buildable units enable us to prioritize specific project areas based on factors such as stakeholder coordination, right-of-way acquisition, and utility coordination. This approach ensures the project progresses seamlessly while providing additional time for deliverables to be completed that are not in our control. Early coordination will allow us to proceed or adjust this approach.

Michael Baker plans to develop the entire project to Stage 2, a solid foundation for E&B Paving to establish a cost estimate for the entire project and establish a GMP early on. In the presence of design unknowns, certain aspects can be left out for a separate pricing package as agreed upon by INDOT. This approach allows us to continue developing project areas with limited risk while holding back on others while ROW is secured or site-specific needs are determined.

In our early discovery of the RIDs, our team has identified long lead items that have the capability of impacting the project schedule if not addressed early. The architectural elements such as lighting have historically been long lead materials and with the number of stakeholders, the agreement of a particular design and/or finish can further prolong the impact of these project elements if not addressed early. E&B Paving's first-hand experience with these potential impacts will allow for the confident exchange of conversation on buildable units and pricing packages as needed. Our team is knowledgeable of INDOT's desire to have as few pricing packages as possible.



PRECONSTRUCTION PHASE QUALITY MANAGEMENT PLAN (QMP) (TASK 3)

A project-specific Quality Management Plan will be developed for this project to outline the quality procedures to be implemented. This plan will detail the document management system and naming conventions for all parties involved. Recognizing that preliminary design data, files, and information are already in development, it is crucial to collaborate with those who have been part of this process to work within the established parameters rather than imposing our typical procedures. To ensure nothing is overlooked, the entire project team will track submittals and responses for each package. We will provide a submittal and response matrix for real-time tracking of these communications and updated by our document control staff.

Our team is dedicated to conducting constructability and interdisciplinary reviews at various stages of the design process. These reviews, combined with coordination and review by INDOT and their representatives and over-the-shoulder reviews for critical changes since the previous submittal, will ensure timely reviews and adherence to the project schedule.



Design Quality Control

Design Project Manager, Julie Thurman, PE, and our Design Quality Assurance Manager, Melissa Effinger, PE will manage the design QC program. Our quality process aligns with INDOT's and involves three elements:

- **Quality Planning.** The Design Manager/Quality Assurance Managers will develop a QMP with all contract information, project scope, budget, and communication and QC plan.
- **Quality Assurance.** We ensure QC efforts are taking place and verify results throughout the project.
- **Quality Control.** We perform verifications and audits to determine if the project or design deliverable meets the requirements developed in the quality planning stage and identify ways to eliminate errors.

The QMP will start as a collaborative effort between design and construction that leads to economy, efficiency, and a quality product.

With Project Manager Bobby Steele involved with every step and the entire E&B team available at our fingertips, constant communication will be utilized for constructability and input for design elements. Constructability reviews are planned to occur as often as needed to keep project development from halting. E&B's knowledge of cost and schedule drivers will allow the design to be optimized for project success.





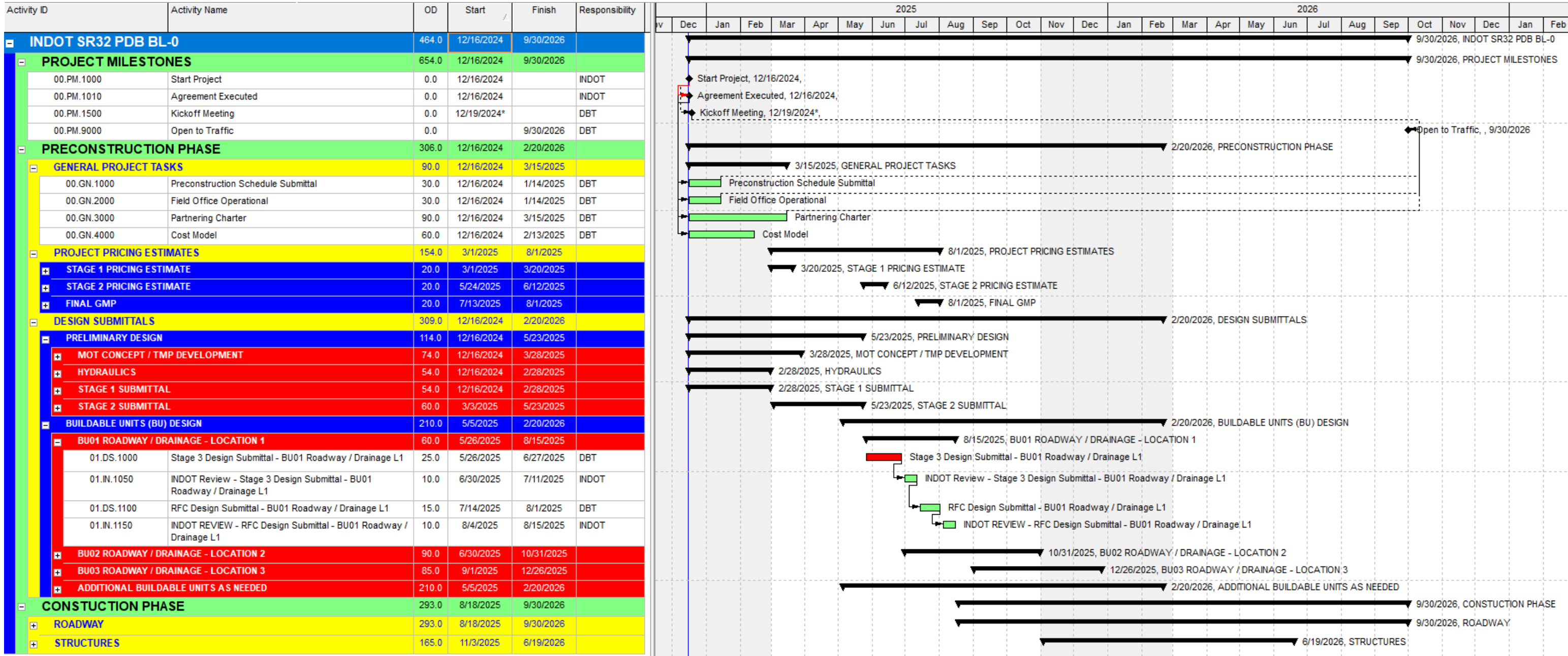
PRECONSTRUCTION PHASE: PROJECT SCHEDULE (TASK 4)

Without a doubt, the project schedule will be one of the main drivers of this project's achievement of opening the project to traffic by October 1, 2026. The baseline and CPM schedule updates are more than check boxes to complete as the contract requires. Thomas will be involved early on, often with design teams and key personnel. He will not only be the developer and monitor of the schedule but also be expected to be an accountability partner to ensure Bobby and Julie are fully aware of undesirable changes in the project schedule. Below, we have provided an overview of the project as we see it today, knowing we will receive more information as time progresses.

Our preliminary schedule will align with our proposed buildable units, allowing us to prioritize specific project components while maintaining flexibility for stakeholder coordination, right-of-way acquisition, and utility coordination. We plan to advance the project design aggressively through Stage 2, facilitating the development of pricing packages, ordering long lead-time items, allowing time for utility coordination/relocation activities, and providing a road map for the final buildable units. We gear this approach towards commencing construction activities by September 1, 2025.

The schedule below provides the framework for a more in-depth Project Baseline Schedule, which our PDB team will develop following award and kickoff meetings. As part of the overall baseline schedule, we will include information and tasks needed from INDOT and other stakeholders that are outside our control. This approach will help inform decision-makers of timeline restrictions to keep the project on track. To ensure quality control and cost-effectiveness are never compromised, the schedule will incorporate internal and external review times, interdisciplinary reviews, and constructability reviews. Updates will be made monthly to reflect actual progress, update remaining durations, and make necessary adjustments to reflect changing conditions. This transparent approach to project development will enable our team and all project stakeholders to collaborate on mitigating schedule risks and achieving on-time completion, keeping everyone informed and involved.

SR 32 REALIGNMENT



RISK AND INNOVATION MANAGEMENT (TASK 5)



Innovation Management

Engagement in innovation workshops and contractor input will occur early and frequently. One of our key preconstruction tasks is risk and innovation management. Our workshops will bring all stakeholders together to discuss ideas and assess the potential impacts of decisions. This process will be streamlined through our transparent communication approach, ensuring the right people are involved. These workshops will foster open, transparent, and non-judgmental discussions on ideas that promote cost and time savings. All innovations will be tracked in an innovation log and proactively shared with the appropriate parties, including the ICE, for evaluation of the proposed innovative designs and construction approaches.



Risk Management

One of the key advantages of the Progressive Design-Build procurement method is its enhanced control over the risk management process and improved project cost certainty. Our team will collaborate with INDOT from the very first risk workshop. Our flexible risk management approach will adapt to changes in the project scope, adjoining site developments, and the natural phases of the project. This approach will involve INDOT and all relevant stakeholders. Our risk management process will include:



1. Risk Identification. Early risk identification is paramount and should continue throughout the life of the project. This collaborative process starts at the initial risk workshop, and continues throughout the life of the project at regularly scheduled and as-needed workshops. We will leverage our extensive design and construction experience to predict and identify risks early in the project lifecycle to initially populate the risk register and we will maintain and update that risk register as new risks are identified and existing risks can be eliminated.



2. Probability and Impacts. Identified risks will be evaluated for the probability of occurrence and their potential severity should they occur. The potential severity analysis will include both the cost and time elements. The analysis of the time element of the potential risks will work in conjunction with the project schedule and will include determining if a timing impact occurs whether it occurs on a critical path element or on an element that includes float on the schedule.



3. Risk Prioritize and Assignment. After identifying and assessing risks as described above, those risks will be prioritized based on their likelihood and potential impacts. Those risks will also be assigned to the party that is best equipped to address or control those risks. While the proposer or INDOT may be the most appropriate entity to be responsible for a risk item, the possibility of sharing those risks may make the most sense.

This concept of risk sharing can incentivize both the proposer and INDOT to jointly manage risk to their mutual benefit. The capped or uncapped provisional sums that are ultimately established for provisional risks can also be established so that any unused provisional sum amount be shared by both entities, thus providing a dual incentive for a common goal.

We fully understand that risks that are assigned solely to us are to be covered in our GMP and no additional payments will be realized if any of these risks occur. Similarly, we comprehend that INDOT-owned risks will be established with event triggers and fully established payment guidelines. These INDOT-owned risks will serve, in essence, as pre-negotiated change orders that will only be enacted if the defined trigger event(s) occurs.



4. Risk Mitigation. PDB is an incredible tool because it provides the most risk mitigation opportunities possible. Our mitigation strategy follows a three-step process:

Eliminate: Our first priority will be to eliminate risks during the preconstruction process where possible. For example, alignment adjustments may be feasible where parcels have not been acquired or environmental circumstances need to be avoided.

Mitigate: Where elimination is not feasible, we will work to reduce the risk's impact. As an example, techniques like lime drying are utilized to minimize weather-related delays, effectively reducing the impact on the project schedule.

Control: For risks that cannot be eliminated or mitigated, we control their impact through rigorous management and contingency planning. This could include, as an example, preparing for industry-wide material shortages by developing comprehensive management plans that are adaptable to changing conditions.





SAFETY MANAGEMENT PLAN (TASK 7)

Our team recognizes the immense value of developing and following site-specific safety plans. With the potential for adjacent large industrial development projects ongoing simultaneously with our project, this project will benefit from a site-specific safety and incident management plan. The most important aspects of a successful safety and incident management plan are developed during the preconstruction and design phases of the project. That initial plan is then re-evaluated utilizing our Plan-Do-Check-Adjust model, as described later in this document. Our plan will be spearheaded by our construction safety manager, Samuel Jacob. Sam is a certified safety professional (CSP) and a certified risk management professional (RIMS-CRMP). The support of our project team and the entire construction staff will assist Sam in developing and implementing this plan.



COST ESTIMATING, SUBCONTRACTING PLAN, CONSTRUCTION PHASE AMENDMENTS, PRICING PACKAGE AMENDMENTS (TASKS 6, 8, 9 & 10)

E&B Paving is committed to engaging in the open-book pricing process that provides transparency and trust in the best use of the project budget. Our estimating team, led by Chad Hartwick, will provide and agree on labor, burden, and equipment rates with INDOT and ICE prior to starting the estimating process. E&B Paving has a long successful history of being the low bidder on projects across the Midwest. This is achieved through one of our company's core values of competitive discipline. Our estimating efforts start with a preliminary book estimate using average unit prices. This book estimate gives us enough information to determine if we can self-perform most of the work or if we need to reach out to our industry partners for various scopes to give us a competitive edge. The lead estimator will then divide out portions of the job to be bid by our estimators. Our estimators are very familiar with estimate deadlines of 4 weeks or less and this job would be no different. Our estimators will perform take-offs on all elements of the project to ensure the accuracy of our estimate. Our commitment will not only meet but exceed the preconstruction task requirements of cost estimating.

In a similar fashion to our cost estimating approach, our team will engage subcontractors and suppliers early and ensure the market remains competitive. E&B Paving can perform all major elements on this project even though certain scopes may ultimately be subcontracted out. Our team limited the number of identified contractors intentionally in this pursuit to give us the flexibility of working with subcontractors to maximize the project's budget. INDOT will be brought to the table when making decisions on subcontractors and suppliers which will be a great opportunity to make selections to meet the DBE goal which is currently undefined on this project. All assumptions will be communicated to the ICE for their determination of a fair market price. Each pricing milestone estimate will be well documented for comparison with the ICE's production-based cost estimate. If discrepancies exceed a predetermined threshold, the ICE and our team will work together to identify the underlying reasons for the discrepancies and work towards correcting them for subsequent PMEs.

The PME process will continue until a GMP is agreed upon by INDOT and they have confidence in the estimated cost, paving the way for the Construction Phase to commence. The GMP is not a new practice for our team. We have a history of providing GMPs at various levels of design. The further along the design, the more accurate the GMP. Similarly, the further along the design, the more simplified the risk register. A principal benefit of the PDB process over traditional DBB delivery is earlier cost certainty. Our team will be collaborative in PMEs from Stage 1 to RFC to gain confidence in the GMP.



CONSTRUCTION PHASE

While the construction phase is not guaranteed for this delivery method, our team is fully committed to meeting the requirements in order to be issued a construction phase amendment and build the project for INDOT. The goals for this project center around meeting or exceeding the schedule, minimizing environmental impacts, maximizing the budget, and remaining flexible throughout the project. Our open-book, fully-transparent approach to establishing a well-thought-out risk register and a mutually acceptable GMP will give INDOT great comfort in issuing a construction phase amendment for us to build the project. E&B Paving will combine its people, experience, and commitment to continuous improvement to execute the construction phase that focuses on transparency, accountability, and proactive communication.



Preconstruction Phase Integration in the Construction Phase

Our team will continue the momentum gained from preconstruction to propel us into construction. We will use our scope packages, schedule, risk log, and plan sets to be strategic in starting phases or progressing between phases of the project. As we have found in traditionally delivered projects, there are instances where the intent in the plans did not match reality in the field. If our constructibility reviews do not eliminate all of these instances, we plan to use a familiar initiative on this project. To account for this reality, we plan an initiative on this project.



This is our Plan, Do, Check, Adjust Initiative (PDCA). Our team will PLAN our work before deploying boots on the ground. We will then DO or perform the work per the plan. The next step is commonly missed but crucial to continuous improvement and this is CHECK. We check our performance, quality, cost, and safety and if it is not up to par, we ADJUST to compliance or expectation. Some highlights of how we will integrate the preconstruction phase into the construction phase include:



- Use of Task Groups during pre-construction continues into construction. Task Groups made up of subject matter experts (SMEs) from design and construction. Examples: MOT, pavement design, grading and drainage, etc.
- Continuation of the Key Personnel from pre-construction through construction
- Designer site visits during construction
- Training "construction phase only" personnel on project goals, methods of communication, conflict resolution procedures, etc. prior to initiating construction



Communication and Collaboration

The partnering process that started during the preconstruction phase will be continued throughout the construction phase. The relationships that were established during Preconstruction will be utilized to maximize communication while construction proceeds. Established lines of communication will allow for faster recognition of opportunities and threats by all parties, thus leading to quick and decisive action.

Informal communication will be promoted in the field through our foremen and superintendents talking daily with the inspection team. This communication will begin with daily work orders being presented to the inspection team for the work planned for the following day. We will incorporate look-ahead meetings alongside our standard meetings. Weekly "site drives" will be conducted between our superintendents and the inspection team to jointly review work performed, work forthcoming, and potential issues. Current or potential issues will be discussed in-person and remedial action steps, and timing will be agreed upon through a collaborative process.

The establishment of separate, but adjoining office spaces will further encourage informal communication. Our experience has shown that the easier you make the ability to communicate, the more likely it is to happen. Adjoining workspaces reduce overall barriers to communication.

Formal communication will be built into the schedule and processes. We will conduct a variety of regularly scheduled meetings with specific purposes to constantly communicate as a team. This includes progress meetings, incident management meetings, quantity reconciliation meetings, and others as needed.



Site-Specific Safety Plan

Recognizing that each project site has unique characteristics and challenges, our quality and safety plans will be tailored to the specifics of this project site. These plans will carry directly over from the preconstruction phase while ensuring these plans evolve as the project progresses. Our safety and incident management plans are expected to be living-breathing documents. Samuel Jacob will continue his role as safety manager through the construction phase.



Risk During Construction Phase

If a shared or owner risk is encountered that is paid for via project contingencies, INDOT will immediately be notified, and it will be addressed per the Risk Register terms. These risks will be jointly discussed and a mutually agreed upon plan of action will be established. Risks that are the contractor's responsibility are included in the GMP and will not increase the project cost.

PROJECT SUCCESS



Project Management

Our team plans to have a single source of verification for project documents. This will ensure the most current version of files are being referenced and time will be saved with this defined structure. This project management tool will be shared with all involved parties. Whether in regularly scheduled meetings or more informal in nature, open, effective, and predictable will be key to streamlining processes. The organization chart between INDOT and our PDB team will be maintained and updated regularly as team members are added while the project evolves. With communication comes accountability. When assigning tasks, our team will ensure deliverables are clearly defined to the appropriate party with a defined deadline. This approach will allow schedule management to be as accurate as possible.





Schedule Management

As mentioned early on, our team plans to utilize buildable units which offer two primary advantages for the design and construction: enhanced flexibility and accelerated scheduling. By separating noncontingent tasks, we can expedite reviews and approvals for critical path items. For instance, roadway geometrics can advance independently of finalizing signing and pavement marking plans. Having Thomas, Bobby, and Julie working together on the schedule with durations, predecessors, and successors, our team will ensure resources are properly allocated to complete the work. This approach will enhance flexibility and accelerate the schedule.



Flexibility to React to Project Demands

Our proactive approach will allow us to effectively respond to internal and external project demands. Our pool of talented engineers allows us to assist with design alterations as new information emerges within the LEAP District and industry partners are identified for the development of the Mega Sites. E&B has ample resources in proximity to this project and has a proven track record of reacting to changes as well as assisting in these changes to provide the best value to the owner. Our experience with alternative delivery projects and collaborative approach ensures that design changes and project goals are met, keeping the project on track to meet the deadline of opening the roadway to traffic by October 1, 2026.



Resource Pool



The project schedule is going to be the driver in order for the road to be open to traffic by October 1, 2026. This means our team must be staffed appropriately during preconstruction and construction to accomplish our deliverables. Michael Baker has engineers nationwide to meet or beat the project schedule with design. E&B Paving has identified two area offices to pull crews from and four asphalt plants in similar distances to supply asphalt from. Our parent company, IMI, also has two concrete plants in close vicinity as well. Having these resources available allows our companies to leverage our position to meet project deadlines.



Facilitate Development

Throughout this procurement, our team has identified this project as much more than a road project and much more than a design-build project. This project is going to showcase our ability to facilitate development in close vicinity. E&B Paving works with GCs on a daily basis and has a strong standing with private developers in Boone County. We understand the need for confidentiality and flexibility and take that responsibility very seriously. We can adapt on the fly – we understand INDOT, design standards, and communication protocols, and we have the ability to leverage that knowledge to bring the right people together and make timely decisions, no matter how challenging the issue.

CLOSING STATEMENT

E&B Paving and Michael Baker both have long histories of delivering successful projects of this size and scope for INDOT. Both firms are more than capable of performing this work in a highly successful manner, however, that isn't the reason that you should select our team for this project. You should select us because we want to be your partner. We are fully committed to collaborating with INDOT and all stakeholders in an open, transparent, and honest manner. We pledge that we will effectively communicate, we will work diligently to build trust from day one and we will be completely accountable for all that we say and do. Simply put, we want to be on your Team!





E&B PAVING

Michael Baker
INTERNATIONAL