LEVEL UP 31

VOLUME II: TECHNICAL PROPOSAL

CM/GC: JUNE 3, 2024

E&B PAVING

GRADEX

INDIANA DEPARTMENT OF TRANSPORTATION
INDOT

RFP #PD2401

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4.2.2.1 GENERAL ORGANIZATION

ORGANIZATIONAL CHART

BOBBY STEELE
Project Manager

SCOTT O'NEIL, PE
Project Scheduler

KIEL SARGENT
Construction Quality Manager

GREG BRIDGES
Safety Manager

MARK WILSON
Construction Manager

TECHNICAL ADVISORS

SHAUN PROFFITT
Area Manager, Bridge Division

- 34+ years of heavy civil experience, primarily focused on bridge projects across Indiana and Kentucky
- Experience in Design-Build and complex fast-pace projects
- Pioneer in innovation with safety at the forefront of decision making
- Leader of E&B's Bridge Division of 16 bridge crews across Indiana and Kentucky

STEVE VARNER, PE
VP of Project Delivery

- 39+ years experience working for owners and contractors in public transportation
- Dedicated Project Manager of the IR-35600 US 31/I-465 interchange original project from beginning to end
- Experienced with a variety of alternative delivery methods, including Best Value Design Build, Design Build Best Value, and Build Operate Transfer
- Active roles in I-65 Southeast DBBV, I-69 6.4, I-69 6.5, North Split, Clear Path 1 and Clear Path 2

CHARLES SMITH
Director of Project Delivery

- 10+ years experience in project management and delivery.
- Experience overseeing large-scale construction projects, including planning, execution, coordination, and delivery.
- Possesses excellent communication skills, and an ability to resolve operational issues quickly and effectively.
- Leader in strategic planning and development of operational strategies.

SCOTT QUIRE
Material Science Director

- 39+ years experience in the highway materials sector
- History of working for the Kentucky Transportation Cabinet, material supply companies, and contractors
- Vastly experienced with hot-mix asphalt mix design, asphalt binder testing, aggregate testing, portland cement concrete testing, and plant production.
- Nationally recognized pavement materials engineer

CHAD HARTWICK, PE
Lead Estimator

ESTIMATING TEAM

TODD BOONE
MOT Manager

BRIAN PICKERING
Structures Superintendent

- 38+ years of bridge experience across Indiana
- Expertise in pre-planning work and communicating with appropriate team members
- Leads bridge crews and is responsible for budget, quality, and schedule during construction
- Known for team building across construction teams and owner's reps

CHAD ARTERBURN
Construction Superintendent

- 15+ years experience in heavy civil construction industry.
- Expertise in developing and implementing operational strategies that align with the company's goals.
- Leader in developing construction methodologies through a familiarity with heavy machinery, materials, and industry technologies.
- Industry leader in managing large scale projects and crew responsibilities.

CONSTRUCTION CREWS

SUBCONTRACTORS & SUPPLIERS

PRELIMINARY STAFFING PLAN & ORGANIZATIONAL/STAFFING APPROACH

As we have done many times before, the E&B Paving and Gradex, Inc. JV team will partner to provide you with a very experienced and qualified construction team. E&B Paving will act as the “lead” company for the joint venture and will be responsible for the majority of the administrative requirements for the project.

The organization of the E&B Paving/Gradex JV Team is represented on the previous page. However, this organizational chart falls short of the mark in expressing the intentionality that was put into selecting every person that is named.

Bobby Steele, E&B Paving, was selected as our proposed Project Manager because of his tendencies to question everything. Bobby never accepts “because it’s always been done that way” as an answer. Technology, innovation and critical thinking are the engines that drive Bobby everyday. This has been demonstrated many times with the CRI’s Bobby proposes on his projects. We believe the CM/GC process is a perfect tool to fully utilize Bobby’s unique skills and drive.

Mark Wilson, Gradex, will serve as our Construction Manager and will report to Bobby. Mark’s twenty plus years of experience on complex INDOT projects like Super 70, Hyperfix I-65/I-70 and Clear Path, coupled with his unique ability to ensure compliance with contract documents will make him an invaluable team member for this project. Mark’s quiet, calm, steady presence will compliment Bobby and will be the right person to coordinate any construction issues with INDOT’s design team.

Serving as the Construction Quality Manager for our Team will be Kiel Sargent, Gradex. Kiel has nearly twenty five years of experience on extremely large INDOT interstate projects with quality assurance roles on each of them. Kiel brings experience from multiple construction companies to the table that provides different perspectives to monitoring our construction quality. Kiel will report directly to Bobby Steele and will provide regular quality updates. Additionally, Kiel will be authorized to make any quality changes necessary including the ability to stop any work until corrective action is completed.

Working in his thirtieth year with E&B Paving, Todd Boone is the only possible choice to serve as the Maintenance of Traffic Manager. In addition to serving as the General Superintendent on the original IR-35600 U.S. 31 project and managing all traffic operations for that project, Todd has MOT experience on multiple complex interstate projects including R-40584, the 2019 MCAR project on the northeast side of Indianapolis. The width and breadth of Todd’s knowledge and experience in the field is not matched by many people, he will truly be a key person on our Team.

With thirty years of experience working for INDOT (four years) and E&B Paving (twenty six years), Chad Hartwick knows highway construction extremely well. Serving as the lead estimator for all of 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. Chad’s relationships with many, many vendors, suppliers and subcontractors will serve this project well. Chad was the clear choice to serve as the Lead Estimator for our Team.

Scott O'Neil, E&B Paving, rounds out the list of key personnel that must be designated. Like Chad, Scott brings nearly twenty years of experience working for INDOT and E&B Paving to the table. Scott, a registered Professional Engineer, is a trained and very competent project scheduler utilizing both Microsoft Project and Primavera P6. Scott served as our Project Manager and Project Scheduler for the entire duration of the I-65 Southeast Design Build Best Value project, as well as our Project Manager for our portion of work on the challenging North Split project, I-69 6.4 and I-69 6.5 projects. Scott will report directly to Bobby Steele and will be instrumental in recognizing opportunities and threats as they relate to the project schedule.

As can be seen, these six "Key Personnel" provide over 130 years of experience in highway construction. While they will have titles like Project Manager and Lead Estimator, each of them bring much more experience than those titles can accurately describe. They will combine their experiences through collaborative internal and external communication to work as a partner to INDOT and their team.

While the above highly qualified individuals represent the portion of our Team that must be identified as "Key Personnel", they are far from being the entire team that INDOT will get if we are selected as the successful proposer. As we do on every project, we support our project personnel with subject matter experts to assist them in their daily tasks and challenges.

These technical advisors, subject matter experts and construction specialists will be available to Bobby Steele and our entire Team during the entirety of the project from the beginning of preconstruction through the end of construction and contract closeout. When needed, Bobby Steele will reach out to these individuals and request consultation with them on any subject necessary. They will serve as a source of ideas and innovation, a sounding board for comparing and contrasting ideas and a general support system for our Team.

A sampling of these advisors include Chad Arterburn (15+ years of experience, Gradex) and Steve Varner (39+ years of experience, E&B Paving) who were both instrumental on our Team during the original IR-35600 U.S. 31 project. Additionally, Shaun Proffitt (34+ years of experience, E&B Paving) and Brian Pickering (38+ years experience, E&B Paving) bring a wealth of knowledge and experience related to all types of bridge construction and demolition.

If selected, you will not receive a team of six individuals, you will receive the full weight that our two companies and our collective 108+ years of experience brings. You will work with a Team that will pledge to fully partner in every way, that will work diligently to identify, classify and price risk and that will be fully transparent and open-booked when it comes to construction pricing. We will be your PARTNER.

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4.2.2.2 PROPOSER EXPERIENCE

FORM E - FIRM EXPERIENCE

Instructions: Provide firm experience for no more than three projects for the Lead Contractor. One Form E shall be completed for each project. This form may be modified; however, the information shall be presented in the order requested and prompts shall be conspicuous to facilitate review. The page limit for each project is two pages.

NAME OF FIRM: E&B PAVING, LLC	NAME OF CLIENT: INDOT
Client contact information	**Contact Name:** Gary Kreutzjans, INDOT **Phone:** (812) 525-9306 **Email:** *gkreutzjans@indot.in.gov*
Project name, location, description, & nature of work:	***SR-28940 I-65 Southeast Indiana Added Travel Lanes Jackson & Bartholomew County.*** 14 miles of completely reconstructed pavement, 3 miles of resurfaced pavement, 20 rehabilitated/widened interstate bridges, 7 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.
Project status (as of proposal date):	Complete
Project delivery method:	Design Build Best Value - Fixed Price with Scope Ladder
Project cost:	$154 million
Work performed date:	From January 2017 to February 2021
Major risks/challenges and strategies implemented to resolve/mitigate these items:	Per the PPA all risk is transferred to the design build contractor team. Utility relocation issues, geotechnical issues, reliability of RID document issues, weather related schedule impacts, Force Majeure Events related to the pandemic supply chain availability and damage to finished permanent traffic control items during construction were all encountered and addressed. Differences between INDOT preferences and design parameters in the technical provisions had to be addressed. Extensive communication and negotiation were implemented until resolutions were agreed upon. A pre-bid risk matrix was developed and risks were assigned values that were included in the proposal development. During construction, our team created a resolution matrix to track any outstanding issues, concerns, or deliverables and whose court each item was in. This was reviewed at all progress meetings for the duration of the contract.
Innovative methods & materials:	Testing of actual aggregates used in concrete pavement was utilized to determine the specific coefficient of thermal expansion to improve our pavement design. Special “gates” were constructed at openings in the temporary concrete barrier wall to allow for acceleration and deceleration of construction traffic to increase safety related to the maintenance of traffic. Both directions of the East Fork White River Bridges (1,600’ in length) were widened toward the median utilizing new hammerhead piers down the center instead of widening the existing piers. The structural steel was value engineered from tradditional steel to weathering steel. These same concepts were also utilized at the L&I Railroad bridges. The structural steel and concrete beams at four sets of twins were set with a gantry crane instead of a traditional crane.

Innovative methods & materials (continued):	Through multiple discussions with INDOT Bridge Design and adhering to the contract, a standard deviation was utilized to reintroduce LMC-VE overlay material which allowed our team to perform bridge deck overlays over weekend interstate single lane closures. This change allowed two bridges to be completed in six weekends compared to seven months if constructed traditionally. This product and process is now a common use for interstate projects to reduce impacts to the traveling public.
Key personnel & their role:	**Scott O'Neil, PE**, Project Manager and Public Involvement Manager; **Bobby Steele,** Bridge Project Manager
Percent of work performed by firm:	85%
Value of liquidated damages and claims:	n/a
Any litigation against firm?	No. None construction related - there is a case related to a traffic accident.

NAME OF FIRM: E&B PAVING, LLC (PRIME); GRADEX (SUBCONTRACTOR) **NAME OF CLIENT: INDOT**	
Client contact information	**Contact Name:** Jacob Cunningham, Parsons **Phone:** (317) 797-0353 **Email:** *jacob.cunningham@parsons.com*
Project name, location, description, & nature of work:	***INDOT Contract R-41841.*** I-65 at Various Locations in Boone County, Indiana. Added travel lanes, bridge replacement, and small structures. **E&B Paving work (Prime Contractor):** asphalt paving, cement treated base paving, concrete paving, temporary barrier wall for MOT. **Gradex work (Major Subcontractor):** existing roadway removal, grading and preparing subgrade for chemical modification, and grading to establish new ditches and detention basins
Project status (as of proposal date):	Complete
Project delivery method:	Design Bid Build
Project cost:	$92 million
Work performed date:	From March 2021 to May 2024
Major risks/challenges and strategies implemented to resolve/mitigate these items:	During Phase 2 of the project, the inside shoulder(s) plus passing lane were built. The MOT called for 2 lanes of traffic maintained northbound and southbound. The project team brought to INDOT and the designer's attention that for +/- 6 miles, vehicles would not have any opportunity to pull off the roadway in the construction zone. This was a major safety concern for the motoring public.The project team initiated and was successful in working with INDOT to execute a Cost Reduction Incentive (CRI) which made the work zone safer for the motoring public. During both Phase 3 and Phase 4 of the project, the maintenance of traffic requirements included traffic being able to exit at either SR 47 or US 52. Due to the nature of the construction, gaps had to be filled with material to provide a temporary crossover from the mainline to the ramp. The project team worked with the designer and INDOT to come up with a plan to fill these gaps with asphalt while also overcoming unforeseen breakover grade issues from the mainline to the existing ramp lane. In the areas where the breakover grades were in excess of 7%, the project team proposed milling the existing asphalt ramp lane and paving new asphalt.

Major risks/challenges and strategies implemented to resolve/mitigate these items (continued):	Permanent median barrier wall was planned to be installed during Phase 2 of the project. Per the plans, three locations of specific lengths were to be omitted for future phases maintenance of traffic. These three locations were never called out to be installed in a later phase. The project team worked closely with INDOT and the designer to add a phase to the project specifically to complete these barrier wall omissions. Two of the three locations were in the vicinity of I-65 and US 52. With the future interchange changes coming at US 52 and I-65 in mind, the project team and INDOT worked together to lower some of the financial burden to INDOT by not replacing some existing signage or existing concrete barrier wall at US 52 and I-65.
Innovative methods & materials:	The CRI implemented on this project provided multiple benefits to the project with two key components. The CRI was designed to "condense" the workspace throughout the work zone which provided an emergency pull off shoulder throughout the work zone. This was accomplished by changing the shoulder strengthening to 3' wide in place of the originally designed 6' wide. The second key component of the CRI was reducing the number of nights of shoulder strengthening. During the nightly shoulder strengthening operation, one direction would be taken down to one lane. By minimizing the number of nights the interstate was down to one lane, both the motoring public and the contractor were less exposed. This project is a test project for multiple aspects for both the Federal Highway and INDOT. Typically, the joints in concrete paving are sealed using a hot tar material after being widened to the specified width. On this project, the northbound concrete pavement joints were widened and sealed using Soy Methyl Ester (SME). SME is a soy based penetrating sealer that is placed in every concrete pavement joint as well as a band is applied to both sides of the joint on top of the pavement. The southbound concrete pavement joints were widened and left untreated or unsealed. Pavement Instrumentation was installed in each layer of the pavement section on the northbound side of the project. A set of instrumentation was installed in the pavement section that has No. 53 stone and open grade asphalt as the subbase while a second set of instrumentation was installed in the pavement section that has Cement Treated Permeable Base (CTPB) as the subbase.
Key personnel & their role:	**Chad Hartwick**, Lead Estimator; **Todd Boone**, General Superintendent; **Mark Wilson**, Project Manager
Percent of work performed by firm:	74%
Value of liquidated damages and claims:	n/a
Any litigation against firm?	No.

NAME OF FIRM: E&B PAVING, LLC/GRADEX (MEMBERS OF TRI-VENTURE) NAME OF CLIENT: INDOT	
Client contact information	**Contact Name:** Rob Goldner, INDOT **Phone:** (765) 316-1267 **Email:** *rgoldner1@indot.in.gov*
Project name, location, description, & nature of work:	***Clear Path 1 (R-38526) and Clear Path 2 (R-43518).*** On I-465 from Fall Creek to the White River and on I-69 from approximately 86th Street to and including the intersection with I-465. E&B Paving and Gradex are two of the three members of a tri-venture responsible for this multi-year challenging interstate intersection reconstruction project. Generally speaking, Gradex is responsible for all clearing activities, removal items, stormwater management, borrow, excavation, structure backfill, all stormwater installations including large pipes and trenchless installations and many more items. E&B Paving is responsible for all concrete and asphalt mainline paving, paved side ditches, curbs, sidewalks, curb and gutter and various other items. Additionally, E&B Paving is the lead contractor for Clear Path 1 and manages all subcontractors and leads the tri-venture efforts.
Project status (as of proposal date):	In Progress
Project delivery method:	Design Bid Build
Project cost:	$471 million bid
Work performed date:	From 2022 to Current
Major risks/challenges and strategies implemented to resolve/mitigate these items:	This complicated project has more than its share of risks and challenges, including delayed utility relocations, maintenance of traffic challenges, tight workspace areas, and aggressive construction timeframes. We have (and continue to) work with INDOT to address these and other challenges by working in multiple phases at once, splitting phases to get started in some areas earlier, combining phases with new MOT schemes and working all winter long to advance the project schedule. One way that the contractors and INDOT are working together to advance this project is by being in frequent and intentional communication. Regular meetings include progress meetings, schedule review meetings, design coordination meetings, utility coordination meetings, public involvement meetings and others.
Innovative methods & materials:	Contractor has resolved constructability issues by converting to trenchless technology on multiple large diameter pipes. Contractor has advanced progress by aggressively reviewing, changing and monitoring MOT schemes and construction phasing.
Key personnel & their role:	**Chad Hartwick**, Lead Estimator; **Todd Boone**, General Superintendent; **Mark Wilson**, Project Manager
Percent of work performed by firm:	60%
Value of liquidated damages and claims:	n/a
Any litigation against firm?	No.

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4.2.2.3 KEY STAFF EXPERIENCE

FORM F - KEY PERSONNEL EXPERIENCE

Instruction: The proposer shall complete for each Key Personnel position indicated below.

Proposer: E&B and Gradex

POSITION	NAME	YEARS OF EXPERIENCE	LICENSE/ CERTIFICATION
PROJECT MANAGER	Bobby Steele	9+	• OSHA 30-Hour • INDOT Stormwater
CONSTRUCTION MANAGER	Mark Wilson	21+	• OSHA 30-Hour • Traffic Control Supervisor
CONSTRUCTION QUALITY MANAGER	Kiel Sargent	24+	• STS-C • OSHA 30-Hour • Traffic Control Supervisor
MAINTENANCE OF TRAFFIC (MOT) MANAGER	Todd Boone	29+	• INDOT Field Supervisor • Traffic Control Specialist • Certified Flagger • OSHA 30-Hour
LEAD ESTIMATOR	Chad Hartwick	30+	• Professional Engineer; Indiana: #19900090 • Leed AP
PROJECT SCHEDULER	Scott O'Neil	26+	• Professional Engineer; Indiana: #10809522

BOBBY STEELE, PROJECT MANAGER

Project Experience #1	Project Name	**SR-289401 I-65 Added Travel Lanes in Jackson and Bartholomew Counties**
	Delivery Method	Design Build Best Value - Fixed Price with Scope Ladder
	Position Title	Bridge Project Manager
	Time in this position	From 2018/January to 2020/August equals total of 2 years, 8 months
	Average number of hours worked per week on project	50
	Project Description	14 miles of interstate widening and reconstruction, along with four miles of resurface. The job included 27 bridges with varying scopes over roads, waterways, and railroads. **Contract:** $154 million; **Bridge Scope:** $31 million
	Detailed description of project responsibilities related to position title	• 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
	Explanation regarding the relevance of this experience to the minimum qualifications for position	Coordination with design team; high profile roadway; complex bridge construction; interchange modifications; value engineering
	Project Representative	Gary Kreutzjans, INDOT (812) 525-9306 *gkreutzjans@indot.in.gov*

BOBBY STEELE, PROJECT MANAGER

Project Experience #2		
	Project Name	**INDOT R-41542:** **I-69 Section 6, Contract 4 in Morgan and Johnson Counties**
	Delivery Method	Design Bid Build
	Position Title	Bridge Project Manager
	Time in this position	From 2020/November to 2023/April equals total of 2 years, 6 months
	Average number of hours worked per week on project	30
	Project Description	7 total bridges as a subcontractor for the prime contractor with varying scopes. Two rehabilitations, three new bridges (of which two were new interchange overpasses), two replacements, a total of seven MSE walls equal to 50,000 SFT. **Estimated construction value** of $17.8 million.
	Detailed description of project responsibilities related to position title	**Specific to the bridge work:** • Estimator • Project Manager • Coordination with Prime Contractor • All submittals and RFIs • Bridge Schedule • Material Procurement
	Explanation regarding the relevance of this experience to the minimum qualifications for position	Coordination with other contractors and other contracts within close vicinity to avoid MOT conflicts; similar scopes and high-profile roadway; new interchange construction, MSE wall, aesthetic finishes, and phased construction.
	Project Representative	Chad Nierman, INDOT (317) 694-8292 *d30nier@indot.in.gov*

BOBBY STEELE, PROJECT MANAGER

Project Experience #3	Project Name	**INDOT R-39730:** **US 52 in Marion, Hancock, & Shelby Counties**
	Delivery Method	Design Bid Build
	Position Title	Bridge Project Manager
	Time in this position	From 2022/August to 2023/December equals total of 1 year, 6 months
	Average number of hours worked per week on project	20
	Project Description	18 miles of patching and resurfacing through Marion, Hancock, & Shelby Counties of US 52, new roundabout intersection, concrete patching and bridge work (5 bridges of varying scopes - 1 replacement, 1 major rehabilitation, and 3 minor rehabilitations). **Contract:** $23.5 milion; **Bridge Scope:** $6.5 million
	Detailed description of project responsibilities related to position title	**Specific to the bridge work:** • Estimator • Project Manager • Coordination with other operations on the corridor • All submittals and RFIs • Bridge Schedule • Material Procurement • Utility coordination
	Explanation regarding the relevance of this experience to the minimum qualifications for position	Phased construction, similar superstructure type
	Project Representative	Rob Goldner, INDOT (765) 316-1267 *rgoldner1@indot.in.gov*

BOBBY STEELE, PROJECT MANAGER

Project Experience #4	
Project Name	**INDOT B-42894: I-265 in Clark & Floyd Counties**
Delivery Method	Design Bid Build
Position Title	Value Engineering Coordinator
Time in this position	From 2023/November to 2024/PRESENT equals total of 0 year, 7 months
Average number of hours worked per week on project	8
Project Description	11 bridges of various scopes (1 interstate ramp over interstate, 2 local roads over interstate, 6 bridges over water ways, 2 bridges over railroad)
Detailed description of project responsibilities related to position title	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 overall management of redesign firm and preconstruction efforts. Value Engineering efforts through CRI's have accumulated thus far to $3.8 million. Safety of the corridor has been significantly improved through the value engineering efforts.
Explanation regarding the relevance of this experience to the minimum qualifications for position	Main point of contact with designer and INDOT; worked collaboratively with INDOT designer and construction team; responsible for preconstruction activities and deliverables.
Project Representative	Ryan Cox, INDOT (812) 569-3198 *rycox@indot.in.gov*

Education	
BS, Construction Management	Purdue University, 2018
Minor in Construction Surveying & Engineering	Purdue University, 2018
Minor in Organization Leadership & Supervision	Purdue University, 2018
OSHA 10-Hour	2014
OSHA 30-Hour	2016
INDOT Stormwater 1	2018

MARK WILSON, CONSTRUCTION MANAGER

Project Experience #1	Project Name	**Hyperfix I-65/I-70**
	Delivery Method	Design Bid Build
	Position Title	Project Engineer
	Time in this position	From 2003/May to 2003/December equals total of 0 years, 8 months
	Average number of hours worked per week on project	80
	Project Description	This $34 million project closed the combined sections of I-65/70 in downtown Indianapolis for the rehabilitation of 33 bridge decks and approximately 35-lane miles of concrete pavement. It also added capacity with additional travel and merge lanes. The closure was completed in only 55 days, 30 days less than the contract allotted time.
	Detailed description of project responsibilities related to position title	• New hire orientation • Timecard review and submission • Quantity tracking • Invoice processing
	Explanation regarding the relevance of this experience to the minimum qualifications for position	This was an extremely fast paced project with crews working 24 hours a day, 7 days a week. It took tremendous organization of the available resources, and a great relationship between INDOT and contractors to accomplish the work.
	Project Representative	Tim Conarroe, INDOT (317) 401-0263 *tconarroe@dlz.com*

MARK WILSON, CONSTRUCTION MANAGER		
Project Experience #2	Project Name	**Super 70**
	Delivery Method	Design Build
	Position Title	Assistant Project Manager
	Time in this position	From 2006/Nov to 2008/Aug equals total of 1 year 10 months
	Average number of hours worked per week on project	75
	Project Description	This $175 million project reconstructed and widened the 6 miles of I-70 between the north split and the east leg of I-465. Super 70 was the largest construction project in INDOT's history, as of 2008.
	Detailed description of project responsibilities related to position title	Responsibilities included coordination with the design team to develop construction drawings, oversight of subcontractors, equipment asset scheduling and maintenance, and quantity tracking and verification.
	Explanation regarding the relevance of this experience to the minimum qualifications for position	The Design-Build delivery method of this project helped the involved parties to problem solve as a team, leading to some innovative solutions while keeping to the owner's schedule and budgetary needs.
	Project Representative	Elsadig Ibrahim, INDOT (317) 260-3992 *eibrahim@indot.in.gov*

MARK WILSON, CONSTRUCTION MANAGER

Project Experience #3	Project Name	**R-38256 & R-43518: Clear Path 465**
	Delivery Method	Design Bid Build
	Position Title	Senior Project Manager
	Time in this position	From 2023/August to 2024/May equals total of 0 years 10 months
	Average number of hours worked per week on project	15
	Project Description	Under 2 contracts totaling $471 million, the interchange and adjoining sections of I-465 & I-69 are being modified to improve safety and traffic flows where they connect on the northeast side of Indianapolis.
	Detailed description of project responsibilities related to position title	Oversight of the Gradex project management team, coordination of resources, and change orders
	Explanation regarding the relevance of this experience to the minimum qualifications for position	The contractors chose a tri-venture arrangement to divide up the extensive amount of work needing to be performed on these projects within the allotted time.
	Project Representative	Rob Goldner, INDOT (765) 316-1267 *rgoldner1@indot.in.gov*

MARK WILSON, CONSTRUCTION MANAGER

Project Experience #4		
	Project Name	**IR-35600:** **US 31 Added Travel Lanes and Bridge Replacement**
	Delivery Method	Design Bid Build
	Position Title	Project Manager
	Time in this position	From 2014/March to 2018/April equals total of 4 years, 2 months
	Average number of hours worked per week on project	65
	Project Description	Reconstruction of US31 and the intersecting city streets between 96th Street and the Monon Trail. The existing signalized intersections were replaced with interchanges and roundabouts with increased capacity through added lanes on US31, as well as increased capacity ramps at the existing interchange of I-465 and US 31. $141 million added travel lane and multiple bridge replacement project on US 31 from 96th Street to north of 136th Street in Carmel
	Detailed description of project responsibilities related to position title	Responsible for scheduling and directing all Gradex resources and subcontractors, quantity tracking and verification, and change orders.
	Explanation regarding the relevance of this experience to the minimum qualifications for position	This project was a joint venture with E&B Paving, who will be partnering up again for the Level Up 31 alternative delivery project.
	Project Representative	Elsadig Ibrahim, INDOT (317) 260-3992 *eibrahim@indot.in.gov*

Education	BS, Construction Engineering & Management OSHA 30-Hour ATSSA TCS	Purdue University, 2003
Summary of Experience	**20 years, 11 months working within Project Management**	

KIEL SARGENT, CONSTRUCTION QUALITY MANAGER

Project Experience #1	Project Name	**I-69 Section 5**
	Delivery Method	Design-Build-Finance-Operate-Maintain (DBFOM)
	Position Title	Operating Foreman
	Time in this position	From 2015/May to 2017/August equals total of 2 years, 3 months
	Average number of hours worked per week on project	60
	Project Description	Mainline interstate construction; **$560 million**
	Detailed description of project responsibilities related to position title	Quality Assurance, material ordering, truck ordering, crew scheduling
	Explanation regarding the relevance of this experience to the minimum qualifications for position	This position was in supervision on a design build project that required a high level of coordination with multiple contractors and crafts. Most Notable areas under my supervision were the SR 46 interchange, 3rd Street interchange and improvements, and 2nd Street interchange and improvements(All Bloomington).
	Project Representative	Sandra Flume, INDOT (317) 650-9237 *SFlum@indot.in.gov*

KIEL SARGENT, CONSTRUCTION QUALITY MANAGER

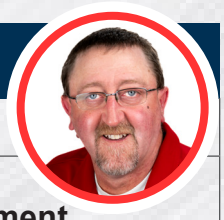
Project Experience #2	Project Name	**Monon Blvd. Phase 1 and 2, Midtown Plaza**
	Delivery Method	Design Bid Build
	Position Title	Superintendent
	Time in this position	From 2017/August to 2021/May equals total of 3 years, 8 months
	Average number of hours worked per week on project	60
	Project Description	Hardscape roadway construction; **Approximate Cost: $24 million**
	Detailed description of project responsibilities related to position title	Quality Assurance, material ordering, project scheduling, subcontractor management
	Explanation regarding the relevance of this experience to the minimum qualifications for position	Superintendent for the prime contractor on a very intricate project with 6 subcontractors and countless suppliers of decorative and unique items.
	Project Representative	Curtis Holcom (765) 506-8784 *Cholcom@crossroadsengineering.com*

KIEL SARGENT, CONSTRUCTION QUALITY MANAGER

Project Experience #3	Project Name	**I-69 Section 6, Contracts 3 and 4**
	Delivery Method	Design Bid Build
	Position Title	Superintendent
	Time in this position	From 2021/June to 2022/June equals total of 1 year, 0 months
	Average number of hours worked per week on project	60
	Project Description	Mainline interstate construction; **Approximate Cost: $405 million**
	Detailed description of project responsibilities related to position title	Quality Assurance, material ordering, truck ordering, crew scheduling
	Explanation regarding the relevance of this experience to the minimum qualifications for position	This position was in supervision on a design build project that required a high level of coordination with multiple contractors and crafts.
	Project Representative	Chad Nierman, INDOT (317)694-8292 *cnierman@indot.in.gov*

Education	Board of Certified Safety Professionals (BCSP), Safety Trained Supervisor Construction (STSC) Credential	December 2022
Summary of Experience	**24+ Years**	

TODD BOONE, MAINTENANCE OF TRAFFIC MANAGER



Project Experience #1	Project Name	**IR-35600:** **US 31 Added Travel Lanes and Bridge Replacement**
	Delivery Method	Design Bid Build
	Position Title	Project Superintendent
	Time in this position	From 2013/August to 2017/October equals total of 4 years, 2 months
	Average number of hours worked per week on project	45+
	Project Description	Reconstruction of US31 and the intersecting city streets between 96th Street and the Monon Trail. The existing signalized intersections were replaced with interchanges and roundabouts with increased capacity through added lanes on US31, as well as increased capacity ramps at the existing interchange of I-465 and US 31. $141 million added travel lane and multiple bridge replacement project on US 31 from 96th Street to north of 136th Street in Carmel
	Detailed description of project responsibilities related to position title	Overall Project Superintendent responsible for all construction operations including MOT, subcontractor scheduling and coordination, schedule enforcement and construction quality control.
	Explanation regarding the relevance of this experience to the minimum qualifications for position	Coordinated all MOT efforts for work on this project including all work at the intersection of US 31 and I-465. Significant experience gained at this project location.
	Project Representative	Elsadig Ibrahim, INDOT (317) 260-3992 *eibrahim@indot.in.gov*

TODD BOONE, MAINTENANCE OF TRAFFIC MANAGER

Project Experience #2	Project Name	**R-40584**
	Delivery Method	Design Bid Build
	Position Title	General Superintendent
	Time in this position	From 2019/March to 2020/April equals total of 1 years, 1 months
	Average number of hours worked per week on project	20
	Project Description	INDOT MCAR project including asphalt and concrete patching, pavement rehabilitation and resurfacing on I-69 and I-465.
	Detailed description of project responsibilities related to position title	Coordinated all MOT efforts for work on this project including all work on I-69, I-465 and the intersection of those interstates.
	Explanation regarding the relevance of this experience to the minimum qualifications for position	Coordinated MOT for this patching/resurfacing project on two interstates and ramps with large traffic volumes.
	Project Representative	Kurt Courtney, INDOT (317) 467-3914 *kcourtney@indot.in.gov*

Education & Certs	INDOT Field Supervisor Traffic Control Specialist Certified Flagger OSHA 30-Hour
Summary of Experience	**29 years, 0 months**

CHAD HARTWICK, PE, LEAD ESTIMATOR

Project Experience #1	Project Name	**R-38526-A:** **Clear Path, Contract 1**
	Delivery Method	Design Bid Build
	Position Title	Lead Estimator
	Time in this position	From 2021/October to 2022/March equals total of 0 years, 6 months
	Average number of hours worked per week on project	30
	Project Description	Road construction and bridge rehabilitation: **$174.3 million**
	Detailed description of project responsibilities related to position title	Complete total project quantity takeoff per pay item; coordinate pre-bid meetings with JV partner and possible major subs; evaluate constructability using planned MOT; communicate material need and timeline to suppliers; complete bid pricing for E&B self perform work; collect all pricing from JV partner, subs and suppliers and submit final bid to INDOT; setup project for accounting system and create documents needed for construction for E&B and INDOT personnel
	Explanation regarding the relevance of this experience to the minimum qualifications for position	The R-38526-A project is at I-465 and I-69 North interchange; a high traffic interstate and multiple phased project. There are multiple scopes involved (ie utility relocations, MOT (w/ temp concrete barrier wall), grade/drain, mse wall, bridge, hma pvmnt, crcp pvmnt, pccp pvnmt, median barrier wall, sound wall, signs/ lighting, etc.)
	Project Representative	James Colonis, INDOT (855) 463-6848 *jcolonis@indot.in.gov*

CHAD HARTWICK, PE, LEAD ESTIMATOR

Project Experience #2	Project Name	**R-40616-A: I-70 Hancock and Henry County**
	Delivery Method	Design Bid Build
	Position Title	Lead Estimator
	Time in this position	From 2021/January to 2021/May equals total of 0 years, 5 months
	Average number of hours worked per week on project	30
	Project Description	Asphalt resurface, bridge deck overlay, and thin deck overlay: **$30.9 million**
	Detailed description of project responsibilities related to position title	Complete total project quantity takeoff per pay item; coordinate pre-bid meetings with JV partner and possible major subs; evaluate constructability using planned MOT; communicate material need and timeline to suppliers; complete bid pricing for E&B self perform work; collect all pricing from JV partner, subs and suppliers and submit final bid to INDOT; setup project for accounting system and create documents needed for construction for E&B and INDOT personnel
	Explanation regarding the relevance of this experience to the minimum qualifications for position	The R-40616-A project was on I-70 around the SR 109 area. A high traffic interstate and multiple phased project. There are multiple scopes involved (ie MOT (w/ temp concrete barrier wall), grade/drain, bridge, hma pvmnt, pccp patching (w/ lean concrete base underneath), strip and pavement interlayer fabric, signs/ lighting, etc.)
	Project Representative	James Colonis, INDOT (855) 463-6848 *jcolonis@indot.in.gov*

CHAD HARTWICK, PE, LEAD ESTIMATOR

Project Experience #3	Project Name	**R-41841-A: I-65 Added Travel Lanes in Boone County**
	Delivery Method	Design Bid Build
	Position Title	Lead Estimator
	Time in this position	From 2020/September to 2021/January equals total of 0 years, 5 months
	Average number of hours worked per week on project	30
	Project Description	Added travel lanes, bridge replacement, and small structures: **$92 million**
	Detailed description of project responsibilities related to position title	Complete total project quantity takeoff per pay item; coordinate pre-bid meetings with JV partner and possible major subs; evaluate constructability using planned MOT; communicate material need and timeline to suppliers; complete bid pricing for E&B self perform work; collect all pricing from JV partner, subs and suppliers and submit final bid to INDOT; setup project for accounting system and create documents needed for construction for E&B and INDOT personnel
	Explanation regarding the relevance of this experience to the minimum qualifications for position	The R-41841-A project was on I-65 in the Lebanon area. A high traffic interstate and multiple phased project. There are multiple scopes involved (ie utility relocations, MOT (w/ temp concrete barrier wall), grade/drain, bridge, hma pvmnt, pccp pvnmt, median barrier wall, signs/lighting, etc.)
	Project Representative	Dave Holtz, INDOT (855) 463-6848 *dholtz@indot.in.gov*

Education & Certs	BS, Civil Engineering Professional Engineer; Indiana: PE19900090 OSHA 30-Hour LEED AP INDOT Stormwater 1 Dale Carnegie Leadership Courses APAI Leadership Development	Purdue University, 1993 February 1999
Summary of Experience	**30+ years, (4 years as INDOT PE/PS and 26 years with E&B Paving)**	

SCOTT O'NEIL, PROJECT SCHEDULER

Project Experience #1	Project Name	**SR-28940 I-65 Southeast Indiana Added Travel Lanes in Jackson and Bartholomew Counties**
	Delivery Method	Design Build Best Value - Fixed Price with Scope Ladder
	Position Title	Project Manager
	Time in this position	From 2017/January to 2021/February equals total of 4 years, 1 months
	Average number of hours worked per week on project	55
	Project Description	Added travel lane project between Seymour and Columbus. The $154 million value included 14 miles of reconstructed pavement, 3 miles of resurfaced pavement, 20 rehabilitated/ widened interstate bridges, 7 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.
	Detailed description of project responsibilities related to position title	Responsible for communicating with INDOT and sub-contractors related to project submittals, project schedule, and project progress. Responsible for project invoicing, and construction issue resolution. Responsible for addressing issues related to the public, emergency service providers, businesses, media, and other interested parties.
	Explanation regarding the relevance of this experience to the minimum qualifications for position	Used Primavera P6 to schedule the design, construction, and oversight review processes for this ATL project. Invoicing was based on monthly reviewed and approved CPM schedule submittals containing schematics, Gantt charts, narratives, cost loaded percent completes, and a schedule of values.
	Project Representative	Gary Kreutzjans, INDOT (812) 525-9306 *gkreutzjans@indot.in.gov*

SCOTT O'NEIL, PROJECT SCHEDULER

Project Experience #2		
	Project Name	**I-65/I-70 North Split Project (Subcontractor to Superior Construction)**
	Delivery Method	Design Build Best Value
	Position Title	Project Manager
	Time in this position	From 2020/November to 2023/May equals total of 2 years, 6 months
	Average number of hours worked per week on project	55
	Project Description	Major subcontractor on the reconfiguration of the north split interchange in downtown Indianapolis. Our participation was valued at $37 million and involved 238,700 SYS of Continuously Reinforced Concrete Paving, 46,700 Ton of Asphalt subbase, and 38,300 LFT of curb.
	Detailed description of project responsibilities related to position title	Responsible for coordinating with INDOT, Prime contractor, other subcontractors, and our concrete and asphalt paving divisions to maintain project efficiency and maximize production rates.
	Explanation regarding the relevance of this experience to the minimum qualifications for position	This was a very complicated prominent project involving 48 bridges and dozens of survey alignments on 3 levels of travel lanes. Responsible for attending meetings to assist the prime contractor in scheduling the project, reviewing project schedules for accuracy and feasibility, and then scheduling our crews based on evaluations of current information.
	Project Representative	Brian Shattuck, INDOT (317) 847-3969 *bshattuck@indot.in.gov*

SCOTT O'NEIL, PROJECT SCHEDULER

Project Experience #3		
	Project Name	**I-69 Section 4, Segment 6 & 7 in Greene and Monroe Counties**
	Delivery Method	Design Bid Build
	Position Title	Project Manager
	Time in this position	From 2012/October to 2016/March equals total of 3 years, 5 months
	Average number of hours worked per week on project	55
	Project Description	With a construction value of $95 million this project included 6.5 miles of new corridor construction of I-69 and 1.5 miles of new corridor construction of SR 445 along with the construction of the roundabout interchange at SR 445. There were 11 interstate bridges on I-69 with 1 overpass bridge over I-69 and 2 bridges on SR 445. There was a Cost reduction incentive utilized valued at $500,000.00. The project included 5,424,000 CYS of earthwork, 19,700 LFT of drainage structures, 216,250 SYS of concrete paving, and 58,400 ton of asphalt shoulders. This was one of the first INDOT projects to address environment compliance with the Design Build Erosion Control method
	Detailed description of project responsibilities related to position title	Responsible for coordination with INDOT, designers, and subcontractors related to submittals, schedule, progress, issue resolution, and design build erosion implementation.
	Explanation regarding the relevance of this experience to the minimum qualifications for position	Responsible for CPM schedule submittals
	Project Representative	Clint Scherzer, INDOT (812) 630-9168 *cscherzer@indot.in.gov*

Education & Certs			Summary of Experience	
	BS, Civil Engineering Indiana Professional Engineer Catalyst Advanced Primavera P6 Training OSHA 30-Hour	Rose-Hulman Institute of Technology PE PE10809522		**19+ Years**

E&B PAVING

GRADEX

LEVEL UP 31

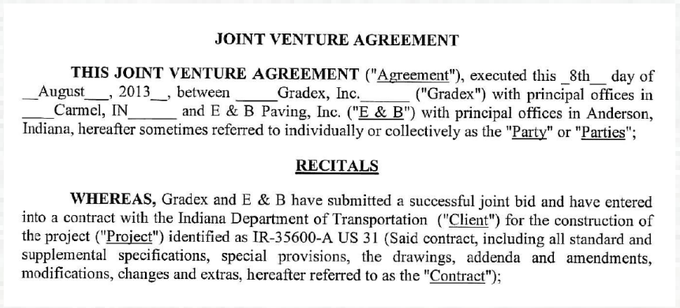
4.2.2.4 PRECONSTRUCTION APPROACH

OVERALL APPROACH

1. TEAMWORK

While the CM/GC method of procurement represents a groundbreaking approach for an INDOT project, our extensive knowledge from completed projects in both the private and public sectors of Indiana will be crucial to its overall success. We understand the considerable benefits that can be realized through this method by integrating the owner, designer, ICE, and contractor into ONE team. We believe that project success will be achieved through a collaborative effort where trust is built with open, honest, frequent effective communication. Project Manager Bobby Steele champions a ONE team philosophy, opening lines of communication between all parties fostering collaboration to realize shared goals.

With a collective 108 years of experience in the Indiana highway industry, this joint venture team consisting of E&B Paving and Gradex, Inc. is poised to collaborate with the INDOT team to ensure the successful completion of the project. Along with a history of joint venture partnerships spanning over 25 years, we have also worked directly for each other on more than 50 projects. Furthermore, we have partnered numerous times in the immediate area surrounding this project location.



JOINT VENTURE AGREEMENT

THIS JOINT VENTURE AGREEMENT ("Agreement"), executed this _8th__ day of __August___, 2013__, between _____Gradex, Inc._____ ("Gradex") with principal offices in ____Carmel, IN_____ and E & B Paving, Inc. ("E & B") with principal offices in Anderson, Indiana, hereafter sometimes referred to individually or collectively as the "Party" or "Parties";

RECITALS

WHEREAS, Gradex and E & B have submitted a successful joint bid and have entered into a contract with the Indiana Department of Transportation ("Client") for the construction of the project ("Project") identified as IR-35600-A US 31 (Said contract, including all standard and supplemental specifications, special provisions, the drawings, addenda and amendments, modifications, changes and extras, hereafter referred to as the "Contract");

One of the projects that E&B Paving and Gradex, Inc. performed as a joint venture is the original construction of this intersection beginning in 2013. Our team was the prime contractor on the IR-35600 project to upgrade this intersection and all of US 31 and its other intersections to just north of the intersection with Rangeline Road. Many of the Key Personnel for this CM/GC proposal were engaged in the original project. Todd Boone served as the project superintendent, Mark Wilson was the project manager for Gradex, and Bobby Steele was an intern for E&B Paving. E&B Paving Vice President for Project Delivery, Steve Varner, was the project manager of the 2013 project and will be instrumentally involved in this CM/GC project. Given this team's extensive experience with this alignment, we are ideally positioned to collaborate with INDOT for this renovation.

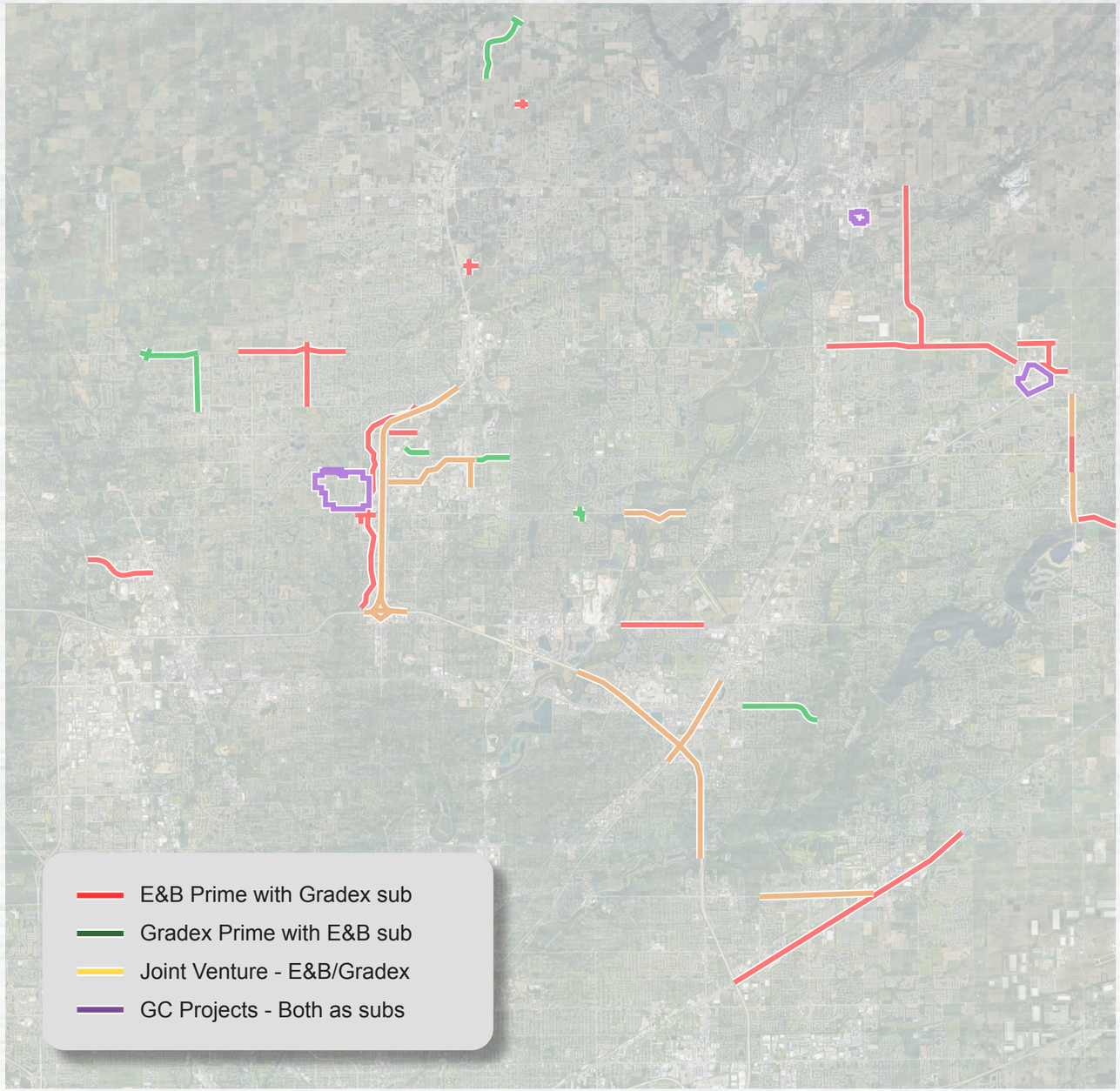

Todd Boone


Mark Wilson


Bobby Steele


Steve Varner

E&B PAVING/GRADEX TEAMING EXPERIENCE



2. KICKOFF/COMMUNICATION

We propose the Preconstruction process begin with an initial kickoff workshop, attended by all key personnel from our team. This important meeting will set the stage for ongoing collaboration, enhance existing relationships, develop new ones, discuss processes, and review project goals to ensure all parties fully understand both INDOT and contractor concerns and expectations.

3. COORDINATION MEETINGS

As we collectively work through Preconstruction, our team will participate in design milestone reviews, cost model/estimating meetings, quantity reconciliation meetings, utility coordination meetings, risk workshops, and all “task force” meetings with the appropriate team members. Project Manager Bobby Steele will ensure the effective engagement of personnel by efficiently coordinating team invitations, ensuring that the right individuals are involved at every level. Construction Manager Mark Wilson will participate in design meetings to provide constructability feedback, introducing design concepts that minimize risk and costs while maintaining project goals. Lead Estimator Chad Hartwick will attend all cost model review meetings, openly discussing cost details and major project cost drivers.

4. INNOVATION BRAINSTORMS

To work through various project milestones, the team will hold a series of innovation brainstorm sessions. Our key personnel will include additional internal construction experts to complement the project team with fresh perspective and ideas. These experts may include other project managers, technical personnel, and construction superintendents who have successfully resolved many similar challenges on prior projects. We will openly bring our wealth of knowledge to the table, brainstorming in conjunction with INDOT and their designers. All potential innovations will be documented in the provided Innovation Log, tracked, and reviewed as the project progresses.

5. TIMELY & QUALITY FEEDBACK

Our skill and experience developed on design-build projects, design-build best value projects, private developer led projects, and a build-operate-transfer projects (city of Indianapolis) will carry over to this initiative. Our history of projects show successful integration with owners, designers, developers, and project team members, where the value of preconstruction was realized through creative, timely, and quality feedback. This commitment to open and timely communication is simply one aspect of ensuring we leverage the full advantage of the CM/GC delivery method. The feedback we provide during the preconstruction/design phase of the project shall be driven by the following goals:

- Ensure a constructible and cost-effective design that meets the project goals.
- Confirm all work has been included and described in sufficient detail to ensure complete and accurate pricing.
- Allow all parties involved to provide feedback on the constructability of the design.
- Facilitate discussion on assumptions for means and methods, construction staging, and sequencing of work.
- Reconcile quantity differences between the designer, ICE, and estimators.
- Identification of all risks, errors, omissions, ambiguities, or other items that require correction.

6. STAKEHOLDER ENGAGEMENT

In addition to INDOT, the designer, ICE, and our team, there are several other stakeholders with a vested interest in this project. Engaging these stakeholders will involve establishing relationships and facilitating communication with all individuals, groups, and organizations affected by or interested in the project.

We believe stakeholder engagement means actively involving these stakeholders by seeking their input, addressing their concerns, and ensuring their perspectives are considered in the planning, implementation, and evaluation of activities. Effective stakeholder engagement and communication are crucial for building trust, managing expectations, mitigating risks, and ultimately, achieving positive outcomes and long-term sustainability for everyone affected.

We pledge to proactively address any potential conflicts or issues raised by stakeholders by working with INDOT to conduct regular meetings for interested parties. By prioritizing transparency, collaboration, and responsiveness, we will collectively cultivate trust and cooperation among stakeholders, contributing to the project's success.

INNOVATION

At the heart of our strategic planning is an unwavering commitment to innovation and adaptability, essential for navigating the intricate landscape of infrastructure projects. We pledge to add significant value to this CM/GC project through our innovative designs and construction methods. Our approach prioritizes creativity and flexibility, addressing key challenges and delivering optimal solutions.

1. RETAINING WALLS

In the pre-planning stages of the construction and design of a retaining wall for any heavy highway construction project, collaboration between the owner and contractor is essential for ensuring a successful outcome. Initial discussions will focus on identifying the project's objectives, including the specific requirements for the retaining walls in terms of height, length, and load-bearing capacity. Special consideration will be given to INDOT's input regarding aesthetic preferences and environmental considerations throughout all construction phases.

Additionally, our team's expertise in construction techniques and materials selection is invaluable for optimizing the wall's structural integrity and durability, all while adhering to budgetary constraints and departmental requirements. Our team will identify multiple options and openly discuss any pros and cons with INDOT and its designer to balance budget, time, and quality of the retaining walls. This project has many unique challenges; failing to identify and collaborate with potential suppliers could trigger significant setbacks in both time and money. Our team has acknowledged the minimal age on the existing walls and that the original supplier for the walls, SANDER's, is no longer in business. With the shop drawings at our disposal, we are committed to working with other suppliers to find a solution for the retaining walls on this project. This solution may include the offsetting of retaining walls to allow for strap length while maintaining the use of the original wall.

Embracing innovation, our team is eager to explore progressive retaining wall products, such as gravity walls and counterfort walls. In the vetting process of a new product, research and collaboration become paramount. This begins with comprehensive evaluations of the product's features, performance, and suitability for the specific requirements of the project. Our joint venture

team (including our suppliers) brings technical expertise to assess the product's structural integrity, installation process, and long-term durability, ensuring it meets industry standards and department specifications. Meanwhile, our team will weigh factors such as cost-effectiveness, environmental impact, and aesthetic appeal to align with project goals and stakeholder expectations. Through open dialogue, site visits, and possibly full-scale mock-ups, we will navigate the complexities of integrating innovative solutions into the project seamlessly.

This joint effort fosters a dynamic partnership, driving informed decision-making and ultimately enhancing the quality and efficiency of the interstate ramp construction for not only this project, but for projects with similar constraints for years to come. By establishing clear communication channels and aligning on key deliverables early in the pre-planning stage, our team can lay a solid foundation for a collaborative and efficient construction process, ultimately resulting in high-quality retaining walls that meet the project specifications and exceed expectations.

2. DEMOLITION

Demolition of an interchange bridge with post-tensioned straddle bents presents a unique set of challenges requiring meticulous planning and execution. Our team has vast experience self-performing and subcontracting complex bridge and structure demolition. While not identical to demolition of post-tensioned elements, our team has removed several overpasses along I-65 which were existing cast-in-place arch girders, and this required significant planning and execution during the demolition process.

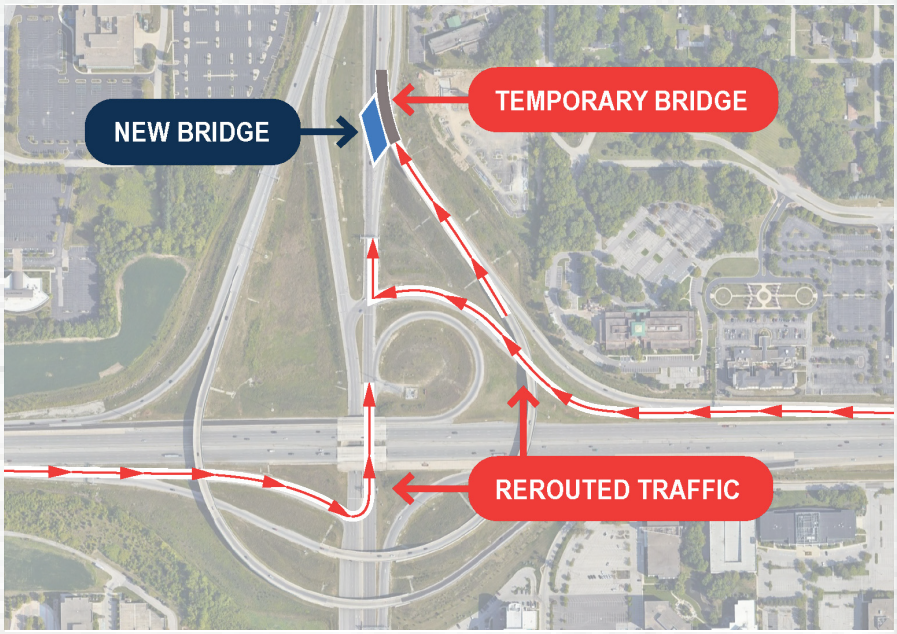
Our team will conduct a thorough structural assessment to determine the most effective demolition method while ensuring safety and minimizing disruption to traffic. Given the complexity of post-tensioned elements, specialized equipment and techniques will be required to carefully dismantle the bridge without compromising nearby facilities (structures, pavement, retaining walls, utilities, etc). Having been on the team of the original construction of the bridges at this interchange, we have at our disposal the post tensioning shop drawings and submittals for the bridges with post tensioning. We will use this information and experts in this field to identify the best process for demolition of the structures.

Our team will lean on the original designer of the post tensioning straddle bent for the best solution and sequence for demolition. Dywidag-Systems is a worldwide company who specializes in post-tensioning on large and small project. DYWIDAG will utilize its expertise in bonded post tensioning of bridge structures to provide a plan to safely de-tension the existing straddle bents. This would include analysis of the existing PT forces, design of a force containment structure and recommended techniques for demolishing the existing bonded tendons. On-site, PTI-certified technicians are available to guide our crews through the demolition process. Our approach to reaching into a pool of industry experts will be a common practice throughout this project to ensure the best solutions are being provided to INDOT.

Coordination with relevant authorities and stakeholders is essential to implement traffic management measures to mitigate impacts. Our joint venture team has a proven track record of successfully identifying MOT alternatives and has worked directly with District and Central Office personnel to approve short term closures of roadways and ramps. Our team is willing to bring accelerated bridge construction (ABC) processes to the table in the design phase for the bridge demolition and

installation of a temporary facility. In doing so, conflicts with roadway widths will be removed earlier which will allow more work to be completed in each phase and eliminate unnecessary phases. Our team has a successful history with temporary bridges, most recently on B-42894 in Clark County where we value engineered a 330' long temporary bridge to expediate phasing, demolition, and reconstruction on Interstate 265. Another example includes our Fix 41 project in Vanderburgh County (B-33539), where we utilized a custom 400' temporary bridge to prioritize traffic flow between Evansville, IN and Henderson, KY. By prioritizing safety, efficiency, and environmental responsibility, our demolition team, whether self-performed or subcontracted, will successfully clear the sites, paving the way for the construction of a new, modernized infrastructure that enhances the local transportation network.

ALTERNATIVE MAINTENANCE OF TRAFFIC IDEA
Allows single phase demolition of straddle-bent bridge and construction of new bridge



1. PRIORITY
- a. Construct the pavement/signal configuration at the WB ramp.
- b. Construct the pavement/signal configuration at the EB ramp.

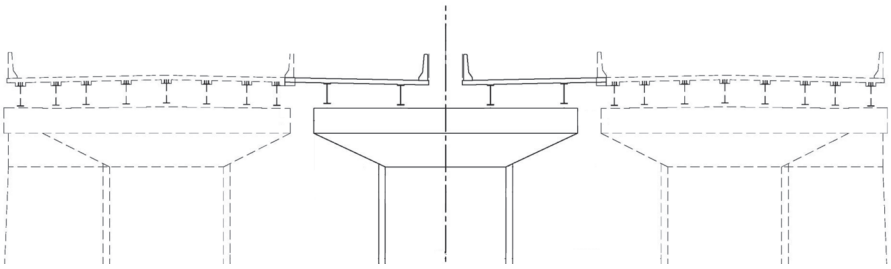
2. TRAFFIC SHIFT - Close ramps and reroute traffic to the completed ramps/signals temporarily (one week? two weeks?)
- a. Demo straddle-bent bridge
- b. Construct temporary bridge
- c. Construct 3rd lane under bridge
- d. Construct movement from 106th collector to NB US31

3. TRAFFIC SHIFT
- a.Close existing meridian to NB US31 movement and reroute to ramps constructed previously
- b.Re-route EB to the temp bridge.
- c.Construct new bridge and new retaining walls in full

4.TRAFFIC SHIFT
- a.Activate new bridge in its permanent configuration
- b.Remove temp bridge
- c.complete remaining removals and grading

3. CONSTRAINED SITES

Examination of the provided documents revealed a contractor with extensive experience within constrained sites will be paramount. Working within limited construction sites demands rigorous planning and coordination. Our approach includes conducting check surveys in critical areas to identify potential issues. Our experience with the Clear Path projects highlights the importance of proactive collaboration to refine timelines. For example, adjustments made in the I-69 South to I-465 South phase eliminated the need for a phase and redirected traffic onto the future Binford Boulevard. Similarly, dividing phases in Clear Path Contract 1, with a mid-project crossover, allowed for simultaneous construction on the project's west and south sections. This innovative solution helped recoup project delays despite originating from an unforeseen delay. Historically, E&B & Gradex have maintained an utmost level of collaboration and trust with project stakeholders, reducing project delays while streamlining overall execution.



2017 Approved Alternative Technical Concept

A constrained site we have identified on the proposed project, in addition to the major interchange, will be the underpass of 106th Street while constructing the substructure for the northbound and southbound bridges carrying US 31. While the simple answer might involve modifying traffic by removing concrete elements and installing temporary pavement or implementing a long-term closure of 106th Street, these solutions do not align with the project goals. Tying directly with MOT, Design and the project goals, our team has identified a potential solution to minimize impacts to 106th Street, eliminate temporary work, and expedite the widening of these two bridges. Our team proposes adding hammerheads to the existing piers or reintroducing an ATC our team performed on the I-65 DBBV project for a single isolated hammerhead pier. To minimize traffic, our team recommends performing all pier work during nighttime hours and performing nightly closures of 106th street.

4. MAINTENANCE OF TRAFFIC (MOT)

In past projects, we have successfully utilized progressive maintenance of traffic strategies to minimize overall disruption and ensure safety for the public. We advocate for and achieve strategic, cost-saving measures that maximize construction efficiency while minimizing MOT costs. Incorporating temporary pavement in earlier phases can help accelerate project timelines and reduce overall costs without compromising quality, improving efficiency, and reducing community inconvenience.

We will utilize our experience gained on the original US 31/I-465 project, the Clear Path projects, the recent I-65 Boone County added travel lane project, and many other challenging locations to provide innovative feedback on the maintenance of traffic challenges for this project. Consideration will be given to advanced warning systems, proper signage, markings, movable barrier wall, phasing, weekend and night work maximization, and a variety of other tools to make MOT as effective as possible.

Our MOT Manager, Todd Boone, will bring his 29+ years of experience on a wide variety of projects ranging from interstate to local roads to the table to be drawn from. Todd's three years of experience planning and executing traffic phase shifts on the original IR-35600 project will be invaluable to this project.

5. RESOURCE OPTIMIZATION

Innovation and planning combine to deliver efficient, risk-mitigating solutions. Leveraging adjacent rights-of-way (ROW) for temporary surcharge sources and extensive attention towards site balancing showcases our resourcefulness and optimization capabilities. For example, collaborative communication on the I-69 Martinsville project facilitated the use of adjacent ROW as a borrow source for a temporary surcharge. Using adjacent borrow increased production and reduced contract time, while keeping the project on schedule. Additionally, special attention is taken to balancing sites in private-sector projects, minimizing earthwork totals and reducing transportation costs.

By blending innovative strategies with meticulous planning, we overcome the extensive challenges of infrastructure projects to deliver the best possible outcomes for clients and stakeholders.

Both of our companies have a large and significant permanent presence in Hamilton County. We both have an ample contingency of equipment, labor and material sources located within the county that we can make available to optimize the construction schedule. Often, the longer it takes to build a project, the more it costs. We believe our local resources will help minimize construction time to the greatest extent possible.

SCHEDULE MANAGEMENT

Schedule management will be paramount for our team overseeing the project, as it encompasses both design and construction phases. This process is familiar to our team as we undergo similar practices on design build projects as both a prime contractor and a subcontractor. Our team begins by meticulously outlining a comprehensive project schedule that includes all critical tasks, milestones, and dependencies. Collaboration with INDOT, design teams, engineers, subcontractors, and suppliers is essential to ensure alignment and timely delivery of design documents, permits, and long-lead materials. Through proactive monitoring and adjustment of the schedule, our team will mitigate potential delays and optimize resource allocation to maintain project momentum. Our team is dedicated to effective communication and coordination with all stakeholders, including authorities and regulatory agencies. By employing robust scheduling strategies and fostering a culture of accountability and efficiency, our team has and will continue to navigate the intricacies of our projects with precision, ultimately delivering a high-quality infrastructure asset on time and within budget.

Schedule management for this CM/GC project involves unique considerations due to the collaborative nature of the delivery method. We have included a list of examples of schedule management strategies our team is committed to using for this project:

1. EARLY INVOLVEMENT OF THE CONSTRUCTION MANAGER

Engage the construction manager early in the project planning phase to provide input on scheduling considerations. This allows for early identification of potential construction challenges, procurement lead times, and construction sequencing, which can be integrated into the project schedule.

2. PHASED PROJECT DELIVERY

Break down the project into phases to allow for early construction activities while design is still in progress. The construction manager can work with the design team to identify early construction packages that can be bid out and executed concurrently with the design process, accelerating the overall project schedule.

3. COLLABORATIVE SCHEDULING WORKSHOPS

Conduct collaborative scheduling workshops with key project stakeholders, including the owner, design team, construction manager, and major subcontractors. These workshops allow for the development of an integrated project schedule that aligns design, procurement, and construction activities to meet project milestones and deadlines.

4. RISK ASSESSMENT AND MITIGATION

Identify schedule risks early in the project and develop mitigation strategies to address them. This may include conducting schedule risk assessments to identify potential delays, such as permitting issues, site constraints, or unforeseen site conditions, and developing contingency plans to minimize their impact on the project schedule

5. LEAN CONSTRUCTION PRACTICES

Implement lean construction practices to streamline project workflows and optimize resource utilization. This may include just-in-time delivery of materials, prefabrication of building components off-site to minimize on-site construction time and maximizing crew productivity through efficient work sequencing.

6. REGULAR SCHEDULE REVIEWS

Conduct regular schedule reviews with the project team to monitor progress and identify any deviations from the baseline schedule. This allows for timely adjustments to the schedule, such as reallocating resources or adjusting work sequences, to keep the project on track.

7. REAL-TIME SCHEDULE UPDATES

Utilize Primavera P6 project management software to facilitate real-time schedule updates and communication among project stakeholders. This ensures that all team members have access to the latest schedule information and can collaborate effectively to resolve any scheduling conflicts or issues that may arise.

PRICING PACKAGES

In a CM/GC project, the contractor takes on the responsibility of identifying potential pricing packages that align with the project's scope, schedule, and budget. The pricing packages can be broken down into small packages as desired or left as large scopes like traditional delivery methods. The pricing package breakdown will have to align with the project goals of schedule management and our pricing approach. Smaller scopes will be provided to allow our DBE suppliers and subcontractors to provide competitive pricing which will allow our team to meet its overall minority goal for the project.

The CM/GC delivery method provides an opportunity for construction activities to commence on some portions of the project prior to the completion of the full design for the entire project. Early work packages can be developed for construction work that is able to be started in advance of the final design. Early work packages can provide some beneficial circumstances, such as:

- Work that can help with the relocation of utilities
- Early purchase of materials that have long lead times
- Work that will improve maintenance of traffic
- Work that will improve the production rates of major portions of the final design
- Work that will reduce project risk or improve the project schedule
- Early start on Public Involvement work

For a CM/GC project on an interstate interchange with varying scopes, such as this I-465 and US 31 interchange, potential pricing packages could include:

1. CLEARING RIGHT-OF-WAY PACKAGE

This package may include clearing and grubbing necessary to make the improvements to the infrastructure. This package may be necessary to split from a larger scope to ensure the environmental date restrictions are met without potential delay to the schedule. This is a potential early work package.

2. INTELLIGENT TRANSPORTATION SYSTEMS (ITS) PACKAGE

This package would cover the removal and replacement of any ITS facilities on this project. Products in this scope package have experienced excessive lead times lately, identifying this package early will help to mitigate potential impacts.

3. SIGNAL AND SHEET SIGN PACKAGE

This package has the potential to be critical to the schedule of the project due to significant lead times for materials. Failing to identify existing facilities and their potential impact on widening of roadways and ramps could cause significant delays to the project schedule if not properly prioritized.

4. EARTHWORK AND GRADING PACKAGE

This package would encompass all excavation, grading, and site preparation activities necessary to prepare the interchange and roadway. It may include earthmoving, embankment construction, and erosion control measures.

5. UTILITY INFRASTRUCTURE PACKAGE

This package would cover the installation of underground utilities, such as stormwater drainage systems, sanitary sewers, water mains, and utility relocations. It may also include coordination with utility providers and compliance with other regulatory agencies.

6. RETAINING WALL PACKAGE

This package would involve the construction of all structural elements of the interchange, including retaining walls, moment slabs, decorative railings and median concrete barrier.

7. BRIDGE PACKAGE

This package would involve the bridges, overpasses, underpasses, and abutments. This would include foundations, piers, decks, and superstructures.

8. BRIDGE DECK OVERLAY PACKAGE

For the bridges requiring rehabilitation and maintenance, this package would cover the application of the polymeric bridge deck overlays, repairs to expansion joints, and other surface treatments to extend the life of the bridge structures.

9. ROADWAY AND PAVEMENT PACKAGE

This package would encompass the construction of roadway surfaces, pavement markings, signage, and traffic control measures within the interchange limits. It may also include asphalt or concrete paving, curbs, and gutters. This package could potentially be split further to provide DBE opportunities for the curb, gutter, and concrete flatwork.

10. LANDSCAPING AND AESTHETIC ENHANCEMENTS PACKAGE

This package would involve the installation of landscaping, irrigation systems, aesthetic treatments, and hardscape elements to enhance the visual appearance of the interchange and mitigate environmental impacts.

11. TRAFFIC CONTROL PACKAGE

This package would include the implementation of temporary traffic control measures, detours, and traffic management plans to minimize disruptions to interstate traffic during construction activities. This is an early work package that should be put into place quickly.

Our team is not only looking at breaking out pricing packages by scope, but also by phase or location. For instance, the WB I-465 exit to SB Meridian may be an ideal package since it is likely that a left turn to NB US31 / 106th Street will be added. Allowing this package to start ahead of other design elements completion will allow other phases to commence once their respective design is complete.

PRICING & SUBCONTRACTING APPROACH

Our team is dedicated to transparency and integrity in all our projects, the Level Up 31 endeavor is no exception. Our approach to a transparent cost model and estimate is quite simple, INDOT will see everything that we see. From our initial Pricing Packages leading to our final GMP Proposal, our estimates are 100% open book. Through this approach, we aim to build trust and empower informed decision-making for the success of the Level Up 31 project.

Key components to providing open and transparent pricing:

1. DETAILED COST TO ESTABLISH FRAMEWORK

During initial estimate coordination meetings with INDOT and ICE, we will provide labor, equipment and other common commodity and resource rates. We will also transparently provide the basis of these rates. Performing this task early in the Preconstruction Phase allows the estimate framework to be established while the design and scopes progress.

2. COST MODEL STRUCTURE

During the development of preliminary Pricing Packages, we will coordinate a Cost Model structure to establish an initial set of bid items and an understanding of the scope of work for each pricing package. At each stage, our Cost Model will provide a thorough breakdown of each bid item that transparently shows what the scope of work and item make-up includes.

3. ESTIMATE COORDINATION

At each Pricing Package milestone, our key personnel and estimators will perform independent quantity take-offs. They will, additionally, document any assumptions and clarifications that were utilized to provide more cost certainty and to aid in estimate coordination with the ICE. This will also benefit design progression. This becomes an iterative process that continuously refines the set of bid items and scope that will be reviewed during every Pricing Package submission.

4. PROJECT COST ESTIMATE FORMAT AND REVIEW

Cost estimates will be generated utilizing HCSS HeavyBid software. Estimates will then be provided in easy-to-interpret spreadsheets. During estimate review meetings, all pricing will be reviewed in detail, including scope, crew sizes and productivities. Our indirect and overhead costs will also be open book and include licenses, taxes, project supervision, temporary facilities, insurance costs and operational support (safety, quality, survey, administrative, mobilization, small tools, and minor equipment).

Ensuring Fair and Competitive Pricing

We believe that our estimating process and cost model development will provide INDOT with transparency, accuracy, and flexibility to a level of detail that allows efficient communication of fair pricing at the lowest level. Any further examination techniques needed to review proposed self-perform work will be included in our pricing packages at INDOT and ICE's request.

Subcontract and material scopes of work, often a substantial portion of the cost of a project, will be bid competitively and openly. Our team's collective network of potential subcontractors and material providers will enable us to solicit multiple quotes for each of the various Pricing Packages. Our team will solicit this material, subcontract quotes, and review them with INDOT and ICE during estimate coordination meetings. This ensures collective and collaborative decision making on what are often major cost drivers.

The proposed bridge work on this project will be a major cost driver. Our team, through E&B Paving, has the full capabilities to perform any and all bridge work associated with this project. It is E&B Paving's full intent to provide satisfactory pricing and perform the bridge work on this project. However, to provide INDOT with the opportunity to ensure fair and competitive pricing, we will solicit subcontractors to quote all or portions of the required bridge scopes and will review those quotes, alongside E&B's prices, openly with INDOT and ICE to collectively make the best selections for the benefit of the project.

Other potential major cost drivers include maintenance of traffic, material escalations, material lead times, utility relocations and limited work areas. We will bring our many years of experience to address each of these potential drivers to mitigate or limit their impact on the project. Early Pricing Packages, early work schedules, effective construction phasing and sequencing are all approaches that we will consider and price alongside INDOT to be able to analyze all options available.

Subcontracting Approach

Our subcontracting plan will intentionally allocate scopes of work that will minimize risks to the project while simultaneously keeping costs low and providing opportunities for DBE's. We recommend that our team and INDOT jointly conduct outreach meetings to garner interest from the DBE community. Potential DBE subcontractors would be provided with the scopes available to bid and explained how the open book pricing process will work on this project. Our team members would answer any and all questions and prepare them to submit competitive bids.

Our subcontractor and material supplier strategy will focus on maximizing the competition of each bid package. We will work with INDOT to identify the scope of work to be contracted and will determine the best method of selecting subcontractors and suppliers. We will organize the work into properly sized packages by scope of work. We will be open to breaking these packages down further where feasible to enhance DBE participation. During Preconstruction, specialty-scope subcontractors will be sought to incorporate their trade-specific pricing into the early cost model. This effort will also create a more efficient and effective GM/GC design process.

Working hand-in-hand with INDOT, we will use the best value and competitive bid selection for medium to low-risk work items. Subcontractors will be invited to submit bids; our approach will be to obtain a minimum of three bids for each work package. Those bids will be evaluated jointly by our team and INDOT for compliance and completeness. Our team will prepare a summary bid comparison report with recommendations for INDOT's concurrence and approval package. Those bids will be evaluated jointly by our team and INDOT for compliance and completeness. For higher risk scopes of work, we suggest that INDOT consider potentially using a qualification-based selection process. This would only apply for those scopes that pose a significant risk to achieving the project goals or where engaging a subcontractor during Preconstruction is essential to success. In this process, selected subcontractors would submit a qualifications proposal that would then be evaluated jointly by our team and INDOT.

RISK MANAGEMENT

Risk management is the most important part of any construction project. Projects of all sizes have inherent and unique risks, depending on a range of factors. Some risks can be eliminated, while others require ongoing mitigation efforts. Our extensive experience and success with similar projects with the State of Indiana have equipped us with valuable insights. Our team's approach to risk management involves a comprehensive plan for identifying, mitigating, and pricing risks. Through this approach, including the early involvement of our team, the best viable solutions for the project can be found. These solutions, by virtue of alternate delivery methods such as CM/GC, can be discovered prior to project commencement which will allow for massive gains in project resource allocation.

IDENTIFY

The CM/GC model creates an unprecedented opportunity for all involved parties to benefit from early identification of project risks. Certain risks are universal in construction projects, such as material lead times and weather. These are easily identified because they are familiar challenges. This project already has some apparent risks outlined in the RFP risk matrix. These include coordinating with other projects in the area, constructing the MSE wall adjacent to the existing wall, and managing specialty traffic patterns. As the project progresses, new risks will emerge. Detailed insightful planning helps in making these risks clearer. Our process for identifying risks involves leveraging our past project experiences with the planned activities for a current project. We assess whether risks encountered previously could affect similarly planned activities. Our team will work diligently to further identify risks, to assess probability and potential impacts of risk items, to propose mitigation strategies and to document the process.

MITIGATE

Our team employs a three-step approach to risk mitigation: eliminate, mitigate, and control. Following the identification of a risk, we draw on our collective experience to determine whether the risk can be completely prevented. For example, when installing pipe across multiple phases of traffic presents a constructability concern, using a jack-and-bore installation method can eliminate the issue by removing phase line connections. We mitigate the risk by reducing its potential impact. For instance, to minimize weather delays, we frequently employ lime drying to keep earthwork operations on schedule, thereby lessening weather's effect on the project timeline. If a risk proves unmitigable, our approach involves controlling it through widespread awareness among all involved. Controlling is a last resort because it requires significant time and resources. For example, in the event of industry-wide material shortages, we develop a manageable plan based on the expected supply, continuously monitor material availability, and adjust our approach as the situation evolves.

PRICE

After identifying a risk, the team must assign a value to it. This step is closely aligned with risk mitigation because understanding the value of each risk helps determine whether mitigation is advantageous. Pricing is a crucial part of the execution of this delivery method. We will outline the costs of eliminating, mitigating, or controlling each risk and decide which approach is most sensible. This delivery method fosters fully collaborative risk management, reducing the overall impact on the project. It provides the department with an opportunity to evaluate individual risks, compare their costs, and determine their priority. For instance, the department can decide whether the public should encounter a shorter, more intense impact or a longer, milder one, with each scenario priced for comparison. Sharing risk motivates both the department and the contractor to minimize costs. For example, if a budget for lime drying is set and the contractor receives a share in the savings, all parties are incentivized to make the best decisions for the project. Implementing the CM/GC model will allow for all committed parties to be active earlier in the process allowing for numerous benefits including greater reductions in time and cost. This collaborative approach ensures that if risks successfully managed in previous projects reappear, we will be able to implement creative strategies before the project's start.

The existence of a project risk often provides an opportunity for improvement. We pledge to address risk and create opportunities by:

- Identifying risk items that affect cost, schedule or other impacts that affect the project
- Collaborating with the team to produce the project risk register
- Assigning risk champions who are responsible for risk mitigation efforts
- Generating accurate cost and schedule impacts
- Working through risks and assigning ownership of risks
- Actively participating in workshops and task force meetings
- Implementing mitigation strategies (as described previously)
- Developing early construction packages, if beneficial to the project
- Developing provisional sum items
- Reviewing contract documents that address risk register and implementing the risk register in construction

CONSTRUCTION OFFICE CO-LOCATION

True partnering and open honest communication will be the key to a successful CM/GC project. It is our belief that there is no better way to promote and facilitate communication than by cohabitating office space. The first time that our team used this concept during the construction phase was on the IR-35600 original US 31/I-465 project. The contractor team and the INDOT team shared office space on Pennsylvania Avenue one block from the project location. The internal door that separated our two office spaces was often found unlocked and open allowing for a free flow and channel of communication to exist. Communication between the teams was allowed to happen in-person and on an as-needed basis. There is no doubt that the ease of communication this space created benefited the project greatly. Small concerns were settled quickly and were prevented from becoming large issues.

We have utilized this concept several times since that initial project. The shared space on our I-65 Southeast Best Value project worked extremely well. The initial Clear Path project included shared office space. The beginning of the second Clear Path project required an additional INDOT inspection team, and we were regrettably unable to find a shared space large enough. However, we located an adequate space within close proximity and within walking distance to achieve similar goals.

We fully endorse the concept of utilizing shared office space beginning in the preconstruction phase of this project. We would propose that this space be located in the immediate vicinity of the project and begin as early in the preconstruction process as possible.

E&B PAVING

GRADEX

LEVEL UP 31

4.2.2.5 CONSTRUCTION APPROACH

CONSTRUCTION PHASE OVERALL APPROACH

Led by Construction Manager Mark Wilson, the E&B Paving/Gradex JV team will transition the strategies developed during Preconstruction directly into our construction operations. This includes integrating subcontractors, suppliers, and self-performing crews while maintaining project management cohesion as demonstrated in our Organization Chart. We will leverage our unique skill sets, industry-leading safety programs, and construction experience to manage the construction of this challenging, high-profile project.

PROPER PLANNING

Our approach to the construction phase of the project starts with proper planning. We will not proceed with construction until we have a comprehensive construction schedule and project management plan in place. The project management plan will address quality management, safety, subcontracting, DBE performance, permitting and environmental mitigation, risk management, and utility coordination. These plans will be prepared and submitted to INDOT for approval. Additionally, we will implement a third-party coordination plan that includes an initial meeting with interested stakeholders, which will be held before any construction activities commence. Stakeholder and emergency services meetings will continue throughout the project at regular intervals and prior to all major traffic or phase changes.

COST CONTROLS

During construction, all project costs and quantities will be measured, reviewed, and verified daily, with summaries provided monthly. The daily measurable quantities will be verified with INDOT quantities on the day they are placed or early the following morning. Our team will perform a monthly detailed cost projection to determine the estimated final project costs, allowing our management team to identify and address potential issues early. We will also perform detailed tracking of commodity-based items to verify that the anticipated yields and quantities do not exceed their estimated costs. Understanding every component that makes up the project costs will contribute to our goal of delivering this project within the established budget. We will implement the following cost-monitoring tools:

- Daily cost and quantity tracking
- Cost projections
- Cost trend charts
- Monthly cost reports
- Weekly issues meeting
- Change Order Tracking

RISK MANAGEMENT

We will maintain continuous budget awareness through a combination of the Risk Register and daily detailed tracking of quantities, production, and the schedule. Should issues arise, we will maintain clear and constant communication with INDOT. Minimizing change orders is always a key to controlling the project budget and is primarily accomplished through managing project risks.

We will utilize the Risk Register, the risk management process, and approaches below to mitigate change orders during Construction:

- Utilize the detailed Risk Register developed in the preconstruction phase that clearly defines ownership, quantification, pricing and assigned contingencies, and the event or trigger. The monitoring of this Risk Register will take place monthly, with adjustments made as needed in response to emerging issues or resolved potential concerns. The Risk Register will be reviewed with INDOT on the same monthly basis.
- Manage and control project risks, including INDOT's risk pools and contingencies, to keep project costs down and provide schedule certainty. Bobby Steele will lead the team to incorporate risk identification and management procedures into our work planning process. This will ensure efficient communication of risks allowing construction crews to plan for and mitigate risks before they are encountered.
- 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.

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. 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 reduces 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.

These meetings will include, but will not be limited to:

- Progress Meetings (weekly)
- Safety Meetings (bi-weekly)
- Utility Coordination Meeting (bi-weekly until not needed)
- Budget Review Meetings (Monthly)
- Stakeholder Meetings (Prior to construction start, prior to major traffic switches and phase changes and no less frequently than once every two months)
- Risk Matrix Review (Monthly)
- Partnering Meetings (Quarterly)
- DBE Status Meetings (Monthly as part of Progress Meeting)
- Sediment and Erosion Control Reviews (Conducted bi-weekly jointly between Gradex and inspection staff)

The partnering and communication process will not end when the work is completed. We will suggest that our team meet with INDOT, their designer and the ICE after work is complete to conduct a **"lessons learned"** discussion. Moving forward, it will be advantageous for us all to thoroughly discuss both the positive and negative aspects that arose throughout the project's duration.

CONTINUOUS IMPROVEMENT

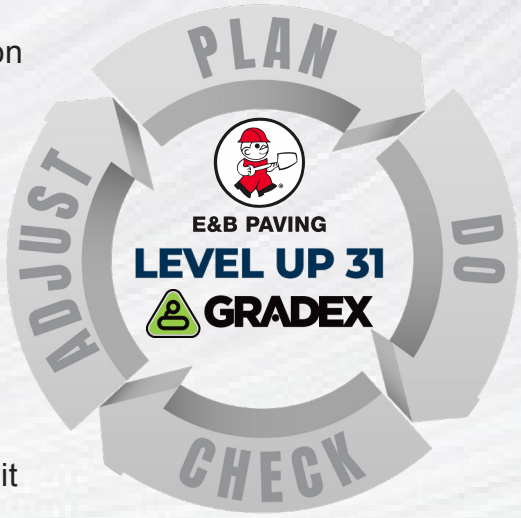
We are committed to continuous improvement and will actively seek feedback from all project stakeholders to identify areas for enhancement. Lessons learned from each phase or buildable unit will be documented, reviewed and incorporated into future phases to drive innovation and optimize performance.

The final construction plans, maintenance of traffic phasing plans and the construction quality plan will not be a stopping point. We will continuously monitor innovation areas and opportunities to reduce or eliminate risk, increase quality, decrease construction duration to best serve our role as partners.

During the regularly scheduled progress meetings, we will include a "positives" and an "improvements" section on the agenda. These will serve to promote weekly communication about what is currently going well and what needs to be improved. All meeting participants will be encouraged to actively engage in discussing ways to enhance not only individual contributions but also the project and its processes.

In summary, our construction phase approach embodies meticulous planning, unwavering dedication to safety and quality, transparent and sincere communication, and an unwavering pursuit of excellence. We are confident that our proven track record, expertise, and dedication to our clients' satisfaction make us the ideal partner for this construction manager/general contractor procurement project.

MANAGEMENT OF CONSTRUCTION PHASING



Our team will continue the momentum gained from Preconstruction to propel us into construction. We will use our scope packages, schedule, 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. 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, safety and if it is not up to par, we ADJUST to compliance or expectations.

Specific to construction phasing, our MOT Manager, Todd Boone will be instrumental in the planning stage of our initiative. Having built the original project and being the “boots on the ground”, Todd will know what to anticipate for the traveling public, and will stay ahead of the curve on our construction phasing as we progress through the project.

Our operations team will be dedicating laydown areas and material delivery drop zones which are critical aspects to consider when planning our construction phasing. This project will include extremely tight work areas; this will require multiple laydown areas to be utilized for various phases and buildable units of the project. These areas will intentionally be selected with the work, the right-of-way, adjoining property owners, and the motoring public in mind. The vision with our master schedule will give us insight on upcoming phase changes or milestones which are dependent on other elements of the project which all impact our construction phasing.

Where feasible, our team will be committed to multiple models of construction phasing. The three models we intend to use are parallel phasing, fast-tracking, and staggered phasing. **Parallel phasing** would be focused on working in as many places in the corridor at once where the work does not conflict with other work. **Fast-tracking** would allow the project schedule to accelerate by overlapping design and construction phases. This approach would require close coordination between design preconstruction and construction teams to ensure timely completion without compromising quality or triggering rework. The continuity of our project management team will be key to utilizing this model. The final approach is **staggered phasing**. The idea of staggering phasing is set up to allow us to optimize resource utilization and mitigate risks. This approach can help balance workload peaks and valleys throughout the project duration.

As an example, we envision parallel phasing being utilized with any temporary pavement or pre-phase work. We see an opportunity for fast-tracking with the bridge work and allowing substructure design to be complete and construction underway as superstructure elements are still being detailed and finalized. Fast-tracking could be used for any clearing right-of-way work that is required.

The staggered phasing would be most appropriate in retaining wall construction as there are peaks in panel erection compared to backfill operations and the intensive cycle that exists until the wall is complete. This three-pronged approach allows for the flexibility and adaptability that are key to successful construction phasing management.

PROPOSER'S SCOPE OF WORK

As discussed previously, the E&B Paving / Gradex JV team has a long and successful history of partnering and working together. Our respective scopes of work and specialties complement each other well.

Gradex will undertake all tasks related to clearing and removal, common excavation or borrowing, necessary storm sewer work, rough and finish grading, structural backfilling, permanent erosion control installations, subgrade preparation, and any other earthwork or pipe-related activities essential for the project.

E&B Paving will serve as the lead for the project and will manage the majority of the subcontractors utilized on the project. Additionally, E&B Paving will perform any HMA paving, concrete paving, stone shoulder installation, stone subgrade installation, geotextile installation, curb, curb and gutter, sidewalk, and miscellaneous concrete installation. Our approach to the bridge scope of work for this project was discussed in the preconstruction portion of this proposal but will be reiterated here. E&B Paving is more than capable of performing the bridge scope for this project and intends to price that work and be prepared to self-perform all elements. However, E&B Paving will also solicit quotes for all or portions of that bridge work to provide INDOT with the option of knowing that they have received the most economical and best value for this critical work element.

E&B Paving has a significant, capable, and professional bridge department which undertakes extensive projects for INDOT and other customers. However, because E&B Paving is a large and frequent prime contractor that builds hundreds of projects a year, we do not self-perform all of the bridge work on our projects. We have partners that we frequently work with, including Beaty Construction, ICC, and other INDOT prequalified contractors. We propose to utilize our existing relationships with these companies to provide the best value for INDOT on this major scope of work.

For work that we are proposing to subcontract, we will allocate scopes of work that will minimize risks to the project and provide opportunities for DBE's. We will focus on maximizing the competition of each bid package. We will work with INDOT to identify the scopes of work to be subcontracted and will determine the best method of selecting subcontractors and suppliers. Our proposal will be to use the best value and competitive bid selection processes for medium to low-risk work items. Subcontractors will be invited to submit bids. Our approach will be to obtain a minimum of three bids for each work package. Those bids will be evaluated jointly by our team and INDOT for compliance and completeness.

For higher risk scopes of work, we suggest using a qualification-based selection process. This would only apply for those scopes that pose a significant risk to achieving the project goals or where engaging a subcontractor during preconstruction is essential to success. In this process, selected subcontractors would submit a qualifications proposal that would then be evaluated and selected jointly by our team and INDOT.

PROCEDURE TO MANAGE SUBCONTRACTING AND SUBCONTRACTOR PERFORMANCE

Once a subcontractor is selected and fully integrated with our team in the construction phase, our team will focus on subcontractor coordination and onboarding. Similar to pre-bid meetings, we will hold a kickoff meeting specific to our subcontractors. At this kickoff meeting we will discuss project expectations, schedule, safety, quality, communication procedures, and administrative requirements. Furthermore, we will establish the lines of communication and reporting between the subcontractor and our team as the progressive contractor. Most importantly, our team will provide subcontractors with access to project documents, drawings specifications, and other relevant information through a centralized document management system.

Once construction starts, our team's responsibility becomes accountability in the project execution and oversight of the subcontractors. This will be accomplished by monitoring our subcontractor performance through tracking progress, timeliness, quality, safety, and compliance with contractual obligations. As necessary, our team will conduct regular coordination meetings with subcontractors to review project status, resolve issues, coordinate remaining work activities, and ensure alignment with the overall project schedule.

As part of the documentation, our team will implement a system for tracking subcontractor deliverables including submittals, RFI's, change orders, certified payroll, material certifications, material payments, etc. Our team is very familiar with change and change management, and we will address this with our subcontractors to ensure their understanding of the process. Our team will have a formal change management process, documenting change requests, evaluating impacts on cost and schedule, and obtaining necessary approvals. Through these established procedures our team can effectively manage subcontractors throughout the project lifecycle ensuring successful outcomes and minimizing risks.

DBE ENGAGEMENT AND DIVERSITY ENHANCEMENT PLAN

Our team is committed to fostering economic growth and equitable opportunities by integrating Disadvantaged Business Enterprises (DBEs) into our projects. We strive to surpass the benchmarks set by regulatory bodies through strategic initiatives and a commitment to community and diversity. This comprehensive plan outlines our approach to ensuring DBE participation and promoting an inclusive business environment.

1. INTERNAL COMPLIANCE AND MONITORING INITIATIVES

- **Routine Verification of DBE Engagement:** We will conduct regular reviews to ensure that DBEs are meaningfully involved and perform significant functions.
- **Timely Payment and Participation Tracking:** Monthly updates will ensure that DBEs receive prompt payments and that we are on track to meet or exceed project participation goals.
- **Annual Project Performance Reviews:** Yearly evaluations will help assess our adherence to set diversity goals and adjust strategies as necessary.
- **Diversity Training Programs:** Annual training sessions will align our team with the latest in diverse business practices and community engagement strategies.

2. OUTREACH AND PRECONSTRUCTION ENGAGEMENT

- **Strategic Sizing of Work Packages:** During the preconstruction phase, we will design work packages that match the capabilities of the local DBE community, enhancing accessibility and participation.
- **Extensive Networking and Information Sessions:** We will host a variety of events to facilitate connections between DBEs and other stakeholders. For example, we have organized outreach sessions where job specifics are communicated to ensure proactive engagement.
- **Utilization of an Expanded Vendor Database:** To maximize outreach, we will leverage an extensive database to notify DBEs of upcoming opportunities through various communication channels.
- **Active Promotion Through Community Channels:** Opportunities will be promoted via local news media, professional associations, and social media to ensure wide visibility.

3. RECRUITMENT OF MINORITIES AND WOMEN

- **Community and Industry Collaboration:** We will partner with local organizations, labor unions and industry groups to tap into diverse talent pools, ensuring broad participation from minorities and women.
- **Barrier Reduction Initiatives:** By identifying and addressing potential barriers, we will streamline entry and participation for all prospective DBEs and workforce members.
  - Understanding of insurance and bonding
  - Lack of OSHA training
  - Cash flow, money management or other financial issues
  - Traffic control awareness

4. DBE SUPPORT AND DEVELOPMENT

- **Monitoring through Audits:** Regular audits will assess the true contribution of DBEs to our projects, focusing on various performance metrics.
- **Mentoring Programs:** We will offer mentorship and development programs designed to build the capabilities of DBEs, ensuring their growth and success.

Our goal is to build lasting partnerships with DBE firms, enhancing their opportunities for future projects while contributing to the overall diversity and economic health of the communities we serve. This plan is not just about meeting requirements but about making a tangible impact through thoughtful engagement and support of diverse businesses.

RISK MANAGEMENT

Risk management is critical to the success of any construction project, with each project facing inherent and unique risks. Our strategy acknowledges the common and project-specific risks, from material lead times to weather conditions and site-specific challenges outlined in the RFP. Our proactive risk management approach ensures identification, mitigation, and pricing of risks to minimize impact on the project's success.

1. RISK IDENTIFICATION

Effective risk identification is paramount. We leverage our extensive experience to predict and identify risks early in the project lifecycle. Recognizable risks such as weather and material availability are continuously monitored. Project-specific risks, such as coordinating with adjacent projects and managing traffic during the construction of the MSE wall, are identified through detailed planning and ongoing analysis. Our approach combines historical data and specific project conditions to outline potential risks clearly. Previously identified potential risks will be monitored closely in the construction phase, a few of these include:

- The existing gas pipeline with uncertain as-built positioning
- The presence of Ascension St. Vincent Heart Center
- Minimal contractor site access and laydown areas

2. RISK MITIGATION

Our mitigation strategy follows a three-step process:

- **Eliminate:** We aim to eliminate risks where possible. For example, the use of a jack-and-bore installation method may be employed to address constructability concerns related to pipe installation across traffic phases, thus removing the risk entirely.
- **Mitigate:** Where elimination is not feasible, we reduce the risk's impact. 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 includes preparing for industry-wide material shortages by developing comprehensive management plans that are adaptable to changing conditions.

3. RISK PRICING

After identifying and strategizing mitigation approaches, each risk is priced to determine the cost-effectiveness of the mitigation measures. This pricing strategy is integral to our decision-making process, allowing us to evaluate whether the cost of mitigation is justified. Our collaborative delivery method facilitates ongoing risk assessment and reallocation of resources, ensuring efficient and cost-effective project management.

4. COLLABORATIVE RISK MANAGEMENT

As described in INDOT's Alternative Delivery Manual and the Project RFP, this project will employ a collaborative risk management approach, enhancing communication between all stakeholders. By understanding and pricing risks collectively, we can decide on the most efficient strategies that balance impact and cost, optimizing project outcomes. This approach encourages shared responsibility, where both INDOT and contractor are incentivized to minimize costs and manage risks effectively.

This integrated approach ensures that risks are not only managed but are also strategically anticipated and addressed from the preconstruction phase. This comprehensive strategy underscores our commitment to delivering the project on time, within budget, and to the highest standards of quality and safety, ensuring the project's overall success and sustainability.

CONSTRUCTION QUALITY MANAGEMENT & SAFETY

Our approach to construction quality management and safety is designed to protect both our workforce and the public, ensuring high standards are maintained throughout the project's lifecycle. We believe that effective quality management and stringent safety measures are essential to the success of every construction project.

1. CONTRACTOR AND PUBLIC SAFETY

Safety is our top priority. We commit to maintaining the highest safety standards to protect both our team members and the public. Our safety protocols are integrated into daily operations, reinforced by rigorous training and adherence to all regulatory safety standards. Our proactive measures include regular safety audits, the use of personal protective equipment, and the implementation of best practices in health and safety.

2. QUALITY CONTROL AND SAFETY PLANS

We will prepare comprehensive quality control and safety plans that outline our approach to managing construction quality and ensuring a safe work environment. These plans will be developed with input from all project stakeholders to ensure that they address specific project risks and compliance requirements. Our quality control plan focuses on achieving all project specifications and standards, while our safety plan emphasizes hazard identification, risk assessment, and incident prevention.

3. SITE-SPECIFIC STRATEGIES

Recognizing that each project site has unique characteristics and challenges, our quality and safety plans will be tailored to the specifics of the project site. This site-specific approach allows us to address unique environmental conditions, local regulations, and specific construction challenges effectively. We will conduct site-specific risk assessments and adapt our strategies to meet the needs of the site, ensuring optimal safety and quality control.

4. UTILIZATION OF PRE-EXISTING DOCUMENTS

To enhance our approach, we will leverage a wealth of existing documents and records from past projects. These documents include lessons learned, best practices, and proven procedures that have been refined over years of successful project implementations. By utilizing these resources, we ensure consistency and efficiency in our quality and safety management practices, adapting proven strategies to the current project's context.

Our comprehensive approach to construction quality management and safety ensures that every aspect of the project is conducted under the strictest quality and safety standards. By preparing detailed plans, tailoring our approach to specific site conditions, and leveraging past successes, we are committed to delivering a project that meets all quality benchmarks and maintains a safe environment for everyone involved. This commitment to excellence in quality and safety is a cornerstone of our operational philosophy and a key factor in our track record of successful project delivery.