




RFP #PD2403

80/94 FLEXROAD

PROPOSAL VOLUME 2: TECHNICAL SUBMITTAL

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WALSH MEADE
JOINT VENTURE

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ORGANIZATIONAL CHART

WALSH MEADE
JOINT VENTURE

1 ORGANIZATION CHART

The Walsh/Meade Joint Venture (WMJV) is an integrated joint venture between Walsh and L&H Company. Meade is recognized by the State of Indiana as a subsidiary of L&H Company (an INDOT prequalified firm). Throughout our proposal, we will refer to L&H Company (Meade) simply as Meade. WMJV is organized with personnel who provide the resources, capacity, and experience to successfully achieve INDOT's Project Goals.

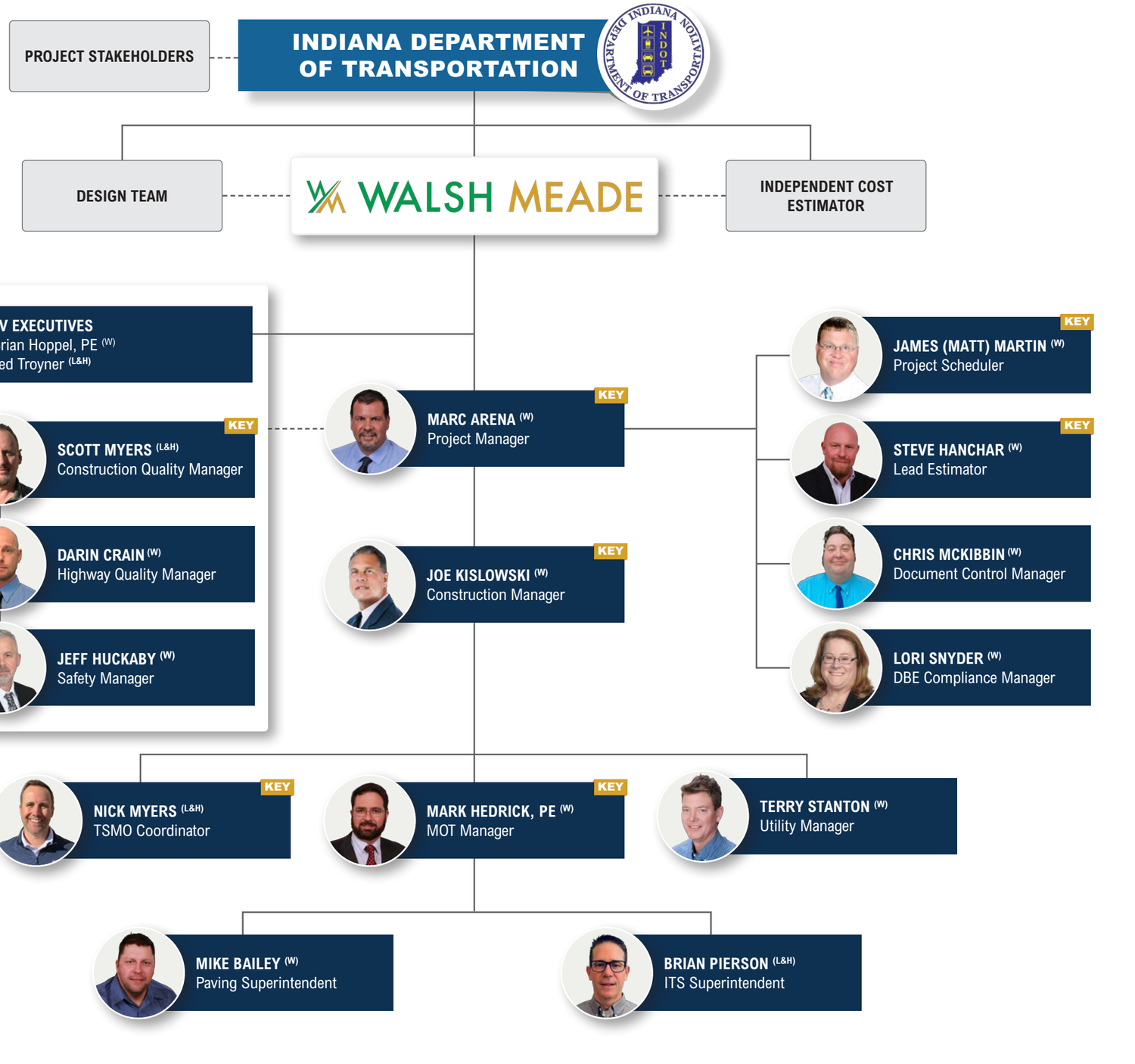
WALSH MEADE JOINT VENTURE

WALSH CONSTRUCTION COMPANY II, LLC

L&H COMPANY, INC (MEADE)

L&H Company, Inc is the parent company of Meade Electric.

L&H Company, Inc



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EXPERIENCE OF THE PROPOSER AND IDENTIFIED CONTRACTORS

WALSH MEADE
JOINT VENTURE

2 EXPERIENCE OF FIRMS

Walsh and Meade are top-ranked firms with local offices in Northwest Indiana and the Chicago area. Together, WMJV offers over 200 years of experience completing some of Indiana's most challenging alternative delivery projects. Our team brings INDOT highway construction and traffic systems expertise, and we will work closely with INDOT to achieve the Project Goals and provide innovative solutions.

Walsh Construction Company II, LLC

Walsh is a member of The Walsh Group, a 126-year-old, fourth generation family-owned business. Walsh is an industry leader in the transportation market, with a top-ranking portfolio of bridge, highway, and transit experience, consistently ranked by *Engineering News-Record (ENR)* among the largest contractors and top bridge builders in the US.

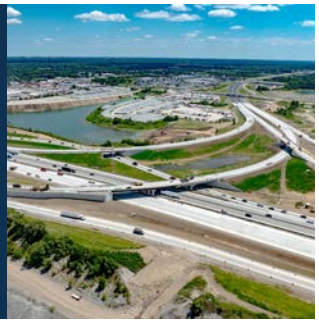
Resumes for Walsh key staff include a long history of successful major project delivery for INDOT, including I-69 Section 6 Contract 5, I-69 Section 5 P3 Construction Manager, and the Ohio River Bridges projects.

Walsh's Value to the FlexRoad Project

- Offices in the area include Crown Point, Indiana, and Chicago, Illinois
- Industry leading *ENR* Rankings include: #1 Bridge Builder, #2 Transportation Contractor, #2 Highway Builder, #4 Mass Transit & Rail, and #15 National Contractor
- Over 100 transportation alternative delivery projects, including design-build and CMGC
- Over 130 CMGC projects across all business sectors valued at $8 billion
- Over 925 professional and trades personnel locally in Indiana and the Chicago area
- Over $600 million in owned equipment assets
- EMR of 0.82, demonstrating safety driven culture

WALSH

Key staff served in leadership roles on I-69 Section 6 Contract 5. Innovative construction methods used on this and many other projects in their portfolio are applicable to FlexRoad.



L&H Company Inc (Meade)

L&H Company Inc, the parent company for the Meade family of companies, is a 116-year-old electrical and underground construction contractor and a registered professional design firm. Meade performs an extensive list of project responsibilities throughout the Midwest for the transportation, utility, pipeline, heavy industrial, institutional, commercial, and telecommunications sectors.

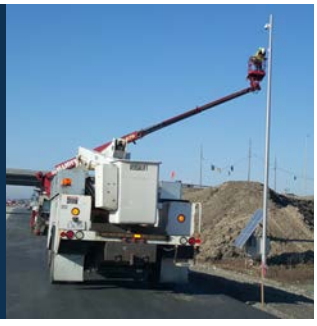
Resumes for L&H Company key staff include innovative ITS solutions, such as INDOT Borman ITS ATMS, Illinois Department of Transportation (IDOT) Electrical Maintenance Contract, and the I-90 Smart Corridor.

Meade's Value to the FlexRoad Project

- Offices in the area include Hammond, Indiana, and several in the Chicago metro area
- More than 1,800 professional staff, and signatory to 80 local labor agreements
- Over 2,500 vehicles and equipment assets
- Constructed more than 80 ITS/ATMS/Fiber Optic-focused deployments for tristate area transportation agencies in the last 20 years
- Firsthand understanding as the lead contractor on the design and installation of the existing system
- Maintenance contractor for both IDOT and ISTHA Active Lane Management and ITS systems
- EMR of 0.69, demonstrating safety driven culture

MEADE

Meade is an industry-leading expert in transportation ITS systems. They have been a trusted partner to INDOT and IDOT, including the INDOT Borman Design-Build ITS ATMS.



PROJECTS SIMILAR TO 80/94 FLEXROAD
(Size, Complexity, Composition)

Our team has constructed over 100 projects on Indiana's highways, with values from under $1 million to over $750 million, including work on this portion of I-80/94 and the Kingery Expressway. Our experience with the design and construction of large-scale highways and interstate-to-interstate interchanges has taught our team the value of a well-thought-out plan and the importance of safe and effective maintenance of traffic.

MEETING/BEATING PROJECT SCHEDULES

WMJV will collaborate with INDOT and its design team during preconstruction to develop a detailed project schedule. Our experience with projects of similar scope will help identify all critical activities. We will implement proven and proactive schedule management processes to deliver the best possible schedule outcomes for FlexRoad. On INDOT's I-69 Section 5 CM Project, Walsh took over as the construction manager to successfully meet the schedule requirements.

WMJV can quickly respond with additional personnel, equipment, or other resources from regional and national sources to meet any schedule challenge. On the Louisville-Southern Indiana Ohio River Bridges program, Walsh aggressively mobilized to the Louisville metro area to design and construct $1.6 billion of transportation infrastructure for Indiana and Kentucky, finishing 18 months earlier than the RFP deadline.

ADJACENT PROJECTS COORDINATION

Coordination with adjacent construction projects is essential to maximize public safety, promote smooth traffic flow, maintain existing ITS/electrical systems, and prevent unnecessary issues for INDOT.

Based on Walsh and Meade's previous projects on this section of I-80/94, we propose the following key approaches to successful adjacent project coordination:

- Integrating interim milestone dates for adjacent projects in the CPM schedule
- Coordinating upcoming work areas using three- and six-week lookahead schedules
- Allocating resources to meet critical deadlines using extensive planning and detailed CPM schedule
- Understanding MOT requirements for all projects and communicating phase durations
- Incorporating these MOT requirements into planned construction phasing while also minimizing phases to expedite construction
- Encouraging and facilitating open lines of communication between contract representatives

ITS MAINTENANCE EXPERIENCE

For over 25 years, Meade has been the primary maintenance contractor for IDOT District 1's ITS systems, including hundreds of miles of fiber optic-based redundant network, 288 integrated vehicle detection sites, 117 ramp metering locations, over 300 roadway monitoring cameras, and over 80 dynamic messaging signs. Meade has been intimately involved with IDOT's transition to emerging ITS technologies and has been instrumental in installing and maintaining these various field devices and ensuring their successful integration into IDOT's advanced traffic monitoring systems. Meade has worked hand-in-hand with each agency's chosen integrators to successfully deploy advanced analytics based ITS and networks. The FlexRoad Project will directly benefit from Meade's understanding of both the upfront costs of ITS systems and the value provided over the lifetime of each technology.

AGILE DESIGN AND CONSTRUCTION ENVIRONMENT

Walsh and Meade both have well-established processes for creating and working in agile design and construction environments. The following approach will prove beneficial for the FlexRoad Project:

- Encourage collaboration and open communication
- Provide an effective meeting structure and schedule
- Engage WMJV subject matter experts to collaborate, review, and comment
- Communicate frequently with key stakeholders to elicit feedback
- Implement an adaptable, schedule-driven approach that allows for changes in project requirements and scope through the Preconstruction Phase
- Provide document control and software for effective quality management and performance
- Implement Bluebeam Revu to expedite collaboration and review of design documents for optimization, constructability, and cost analysis
- Provide cost comparisons between design and proposed alternatives

SAFETY DRIVEN CULTURE

WMJV's greatest responsibility is the safety of the public and the Project workforce. We offer a team with excellent safety records and established, comprehensive safety programs. Our management staff make safety an integral part of the planning that goes into every work activity, starting in design and carrying through during construction. Safety is part of every aspect of our work including innovation, constructability reviews, and long-term maintenance items like ITS systems. As part of our "No One Gets Hurt" and actively caring culture, all employees are committed to safety as our #1 priority.

PROVEN EXPERIENCE WORKING WITH INDOT AND OTHER OWNERS

Collaboration, communication, and trust are the cornerstones of our success on CMGC and progressive design-build delivery projects. With these delivery methods being newly introduced to the transportation design and construction market in the Midwest, WMJV brings current, ongoing experience to benefit the FlexRoad project.

Our CMGC experience is wide-ranging across project types, but all share a common thread—effective collaboration that saves money and time while achieving Project Goals. Examples that will benefit the Project include:

- **I-69 Section 5 CM:** Walsh was brought on to the project to develop an aggressive recovery CPM schedule, renegotiate subcontractor terms, and manage daily field operations. With this new direction and leadership, INDOT and the project team were able to reclaim the confidence of the public and stakeholders.
- **TEXRail Commuter Rail CMGC:** Walsh used the preconstruction value engineering process to save substantial cost, improve the schedule, and mitigate impacts to the public. The team established Accelerated Bridge Construction techniques during preconstruction to mitigate impacts to the railroads.
- **DART Blue Line Extension CMGC:** Walsh's successful partnering and collaboration with the owner and design team enabled delivery of this GMP contract scope early and under budget.

In the past ten years, Walsh has performed over 130 CMGC/CMAR projects across all business sectors valued at $8 billion.

LOCAL ITS EXPERTISE

Meade is one of the leading ITS construction firms completing projects for agencies throughout the Midwest. As the primary ITS maintenance contractor for both IDOT and ISTHA, they have been involved in capturing and processing field data and analytics, and collaborating with various integrators to provide real-time, adaptive, usable information. This data includes travel times generated from a myriad of vehicle detection systems, active and intuitive ramp metering systems, roadway monitoring camera analytics, and real-time public notification via dynamic message signage, among others.

Meade was the prime contractor on the ISTHA I-90 Smart Corridor project, the first major lane overhead gantry and DMS-based lane control project in the Midwest. As part of this project, Meade built and set 23 gantries containing 386 integrated lane control signs. Additional ITS components installed, tested, and integrated on this project included 65 MVDS units, 86 CCTV cameras, and 68 miles of fiber optic cables utilized as the backbone of a fully redundant corridor network.

CERTAINTY OF PROJECT SUCCESS

With our extensive INDOT and alternative delivery experience and proven ability to deliver innovation to provide schedule certainty and stay on budget, WMJV will be a dependable partner to INDOT. As shown in **FIGURE 1 ON PAGE 2-4**, our experience and relationships are invaluable for providing a reasonable budget, and we complement these experiences and relationships with superior technical competence and the ability to communicate and collaborate.

Walsh is currently in the preconstruction phase on two projects in the Midwest using similar delivery models: the Brent Spence Corridor Project (progressive design-build) and the Western Hills Viaduct Replacement (CMAR/CMGC). These projects demonstrate that every member of the project team—the owner, key stakeholders, design team, independent cost estimators (ICE), and construction team—has a crucial role in bringing value to the project.

FIGURE 1 // PROJECT EXPERIENCE.

WALSH PROJECTS

I-80/94 AT I-65 INTERCHANGE MODIFICATION
Gary, IN | INDOT | $50M
- Reconstruction of mainline I-65, two existing ramps, and six new collector/distributor ramps
- Received excellent safety rating with zero recordables in the 150,000+ manhours worked
- Key staff: Marc Arena

I-65 AT US 30 DB
Merrillville, IN | INDOT | $65M
- Design-build contract similar in size and complexity
- Innovative solution for the interchange modification eliminated two exit loops and provided extra-wide off-ramps to accommodate the volume of interstate traffic
- Completed 30 days early
- Key Staff: Marc Arena and Joe Kislowski

ACCELERATE I-465
Indianapolis, IN | INDOT | $328M
- Five contracts including two system interchanges, extensive ITS, Weigh in Motion, and traffic sensors
- Complex urban corridor with similar conditions and stakeholders to the Project
- Innovative, multi-year and multi-phase MOT plans to deliver ahead of schedule

ORB DOWNTOWN CROSSING (DTC) AND EAST END CROSSING (EEC)
Louisville, KY | KYTC/IFA | $1.6B
- Larger, more complex project with system interchanges
- On EEC, innovative interchange design eliminated 30,000 SY of pavement and two bridges
- Both projects completed ahead of owners' original completion date; DTC by 18 months and EEC by 6 months
- Key staff: Matt Martin

I-465 AT I-70 INTERCHANGE MODIFICATIONS DB
Indianapolis, IN | INDOT | $70M
- Interchange modifications in heavy-interstate traffic
- Complex urban corridor with similar complex MOT and construction phasing
- Alternative delivery with innovative means and methods
- Key staff: Steve Hanchar

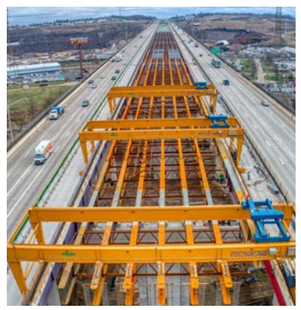
WALSH + MEADE PROJECTS

SOUTH SHORE DOUBLE TRACK
Michigan City, IN | NICTD | $375M
- Meade was the electrical subcontractor to Walsh
- 19 miles of track, 175,000 feet of fiber, 47,000 feet of duct, and 162 fiber optic handholes
- New overhead contact system, new or modified railroad signals and control systems
- Key staff: Nick Myers, Brian Pierson, Marc Arena, Steve Hanchar, and Joe Kislowski

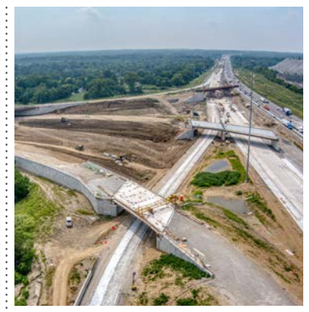
MEADE PROJECTS

I-90 SMART CORRIDOR
Northern IL | ISTHA | $28.2M
- Installed 23 gantries with 386 DMS and lane control signs
- First smart corridor with active lane control in the tristate region
- Installed 68 miles of redundant fiber optics to support 82 CCTV cameras and 65 MVDS locations
- Key staff: Scott Myers

BORMAN DESIGN-BUILD ATMS
Northwest IN | INDOT | $7M
- New multimodal, redundant fiber and microwave communication network covering 20 miles
- Fiber optic network currently in use on the I-80/94 corridor
- Integrated existing ITS field devices into INDOT's ATMS architecture
- Key staff: Scott Myers



I-480 VALLEY VIEW BRIDGE DB
Independence, OH | ODOT | $227M
- Coordinated with overlapping ODOT contracts, resolving conflicts between project designs and sharing work zones
- Innovative three-gantry system for steel erection leading to a savings of over $10 million
- Worked with owner to get pre-bid approval of steel erection method
- Key staff: Mark Hedrick



I-69 SECTION 6 CONTRACT 5 DB
Indianapolis, IN | INDOT | $728M
- Developed ATCs that saved an estimated $24.5 million and included utility line, bridge phasing, and alignments
- INDOT approved 18 ATCs
- High volume corridor with multiple traffic phases
- Detailed schedule sequencing the design packages
- Key staff: Mark Hedrick, Matt Martin, and Steve Hanchar

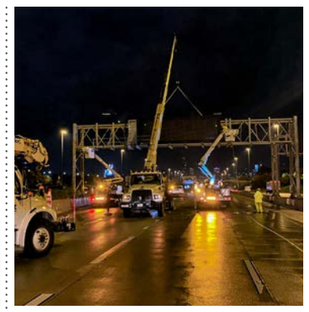
I-65 ADDED TRAVEL LANES DB
Lowell, IN | INDOT | $64M
- MOT in heavy traffic
- Innovative bridge design; Kankakee River bridge to single span with no in-water piers
- Completed the project in one construction season and 30 days ahead of schedule
- Key staff: Marc Arena and Joe Kislowski

I-69 SECTION 5 CM
Bloomington, IN | INDOT | $400M
- Construction management
- Coordinated design completion and managed INDOT's contractors
- 1 million cubic yards of dirt and rock
- 20 bridges
- 600,000 tons asphalt
- Key staff: Matt Martin

WESTERN HILLS VIADUCT REPLACEMENT CMAR
Cincinnati, OH | City of Cincinnati
- Preconstruction planning in progress
- Worked with the owner and ICE to establish estimating procedures and processes
- Key staff: Joe Kislowski, Mark Hedrick, Steve Hanchar, and Matt Martin are involved in preconstruction phase

I-294 SOUTHBOUND PLAZA 41 IMPROVEMENTS
Homewood, IL | ISTHA | $8.8M
- Meade was the electrical subcontractor to Walsh
- Removed toll plaza structures and added new control building
- Installed monotube and ITS equipment along with lighting
- Network expansion with new fiber optic link, 4 new PTZ cameras
- Key staff: Scott Myers

EDENS EXPRESSWAY ITS
Northern IL | IDOT | $12M
- 3 miles of new intelligent transportation systems
- TS upgrades include 40 CCTV cameras, 7 dynamic message signs, and a redundant Layer III network
- Installed underground infrastructure and fiber optics to support future corridor ITS expansion
- Key staff: Nick Myers



ELECTRICAL MAINTENANCE CONTRACT
Illinois District 1 | IDOT | $39.9M
- 24/7 maintenance for all of IDOT District 1's ITS devices and systems
- Directly involved in the maintenance, design, testing, installation, configuration, and integration of ITS systems including MVDS, DMS, CCTV, ramp metering, and fiber optics
- Key staff: Nick Myers

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KEY PERSONNEL EXPERIENCE

WALSH MEADE
JOINT VENTURE

MARC ARENA
PROJECT MANAGER

FlexRoad Qualifications:
- Career focused on urban, high-traffic transportation projects in Indiana
- Extensive design-build and estimating experience
- History of achieving on-time or early completion
- Over 20 years of experience with alternative delivery

Years of Experience:
Construction Industry: 30
Employed with Walsh: 28

Education:
B.S., Construction Management, Southern Illinois University Carbondale

Certifications:
- OSHA 30
- First Aid/CPR/AED

South Shore Line Double Track
Michigan City, IN | $375M

Value to the FlexRoad Project:
Marc has managed several projects along the 80/94 corridor in Northwest Indiana and across the state line in Illinois. In addition to this experience, Marc has also managed the connecting interstates with high-traffic volumes. He has spent most of his career working with INDOT on complex highway, interchange, and bridge projects, including alternative delivery projects. He also recently worked with Meade on the successful NICTD Double Track Project that was completed on time and under budget. As a long-time resident of Lake County, Indiana, Marc has a personal stake in the Project's success.

Role on the FlexRoad Project:
As Project Manager, Marc has authority over the WMJV and responsibility for successful project delivery. He will be the Department's primary contact after award and will lead our team in collaborating with the Department and the Design Team to mitigate risk and formulate a GMP. Marc will actively manage the overall construction, maintenance, contract administration, safety, quality, public relations, diversity and inclusion, and environmental compliance on behalf of the WMJV. This includes project operations and overseeing schedule, budget, and management systems. With his strong technical background, he will be a valuable partner to the Department and Design Team during Preconstruction. Marc will be assigned to the project part-time during the Preconstruction Phase and full-time during the Construction Phase.

PROJECT EXPERIENCE HIGHLIGHTS

South Shore Line Double Track DT-1
Michigan City, IN | $375M | NICTD

Senior Project Manger. Marc led the construction joint venture team, which included subcontractor Meade, to deliver the construction of a new second railroad track and other improvements within a 26.6-mile section of NICTD's existing South Shore Line between Gary and Michigan City, Indiana. Construction elements included a new separated two-track right-of-way in Michigan City, replacing the current street-running tracks; a new overhead contact system; new or modified railroad signals and control systems; reconstruction of at-grade crossings including new and modified grade crossing warning equipment; culvert replacements; passenger platform upgrades at five stations; additional surface parking lots; four new railroad bridges; and three types of retaining wall systems. ***Reference:*** *Nicole Barker, NICTD | 219.921.4263; Nicole.Barker@nictd.com*

I-65 NWI Added Travel Lanes Design-Build
Lowell, IN | $64M | INDOT

Senior Project Manager. Marc oversaw this design-build project from the pursuit through project completion. The project widened a 13-mile stretch of I-65 from US 30 to SR 2, and reconstructed the Kankakee River Bridge. One additional travel lane was added on both northbound and southbound lanes of the busy interstate. In addition, the northbound and southbound bridges over the Kankakee River were replaced to allow for future expansion of the I-65 corridor. ***Reference:*** *Christien Reynolds, Area Engineer | 219.325.7524; creynolds1@indot.in.gov*

I-80/94 Interchange Modification
Gary, IN | $100M | INDOT

Senior Project Manager. Marc oversaw all construction, scheduling, subcontractor coordination, construction submittals, material procurement, shop drawing review, and self-performed work and survey crews. The project completely reconstructed three miles of I-80/94, and included lane widening, new interchange ramps, bridge work for five bridges, MSE wall construction, and concrete paving. ***Reference:*** *Jon Kruger, LaPorte District Construction Engineer | 219.325.7562; jkruger@indot.in.gov*

I-65 and I-80/94 Interchange Modification (Phase 1)
Gary, IN | $50M | INDOT

Project Manager. Marc actively managed this complex project, including project start-up, staffing, and subcontract negotiations; oversaw quality control, schedule, cost accounting; and ensured close coordination among project team members. The project reconstructed mainline I-65, two existing ramps, and six new collector/distributor ramps, which entailed the construction of approximately 110,000 square yards of concrete pavement, 225,000 square feet of MSE wall, and 5 new bridges, including the longest single-span, post-tensioned concrete bridge in the country at the time of construction. The project's excellent safety record, with no recordable accidents in more than 150,000 manhours, resulted from combining new innovative safety practices with proven ones. ***Reference:*** *Jon Kruger, LaPorte District Construction Engineer | 219.325.7562; jkruger@indot.in.gov*

I-80/I-94 Kingery Expressway (Phase 1P and 3P)
Lansing, IL | $41M | IDOT

Project Manager. Marc oversaw and coordinated constructability reviews, managed self-performed operations, oversaw material procurement and construction submittals, and managed subcontracts to ensure successful project delivery. This project involved the construction of approximately 1.5 miles of additional lanes along the eastbound and westbound inside lanes of mainline I-80/94 (Kingery Expressway). ***Reference:*** *Dave Cuthbertson Resident Engineer, Benesch | dcuthbertson@benesch.com*

45th Street Grade Separation
Munster, IN| $22M | INDOT

Senior Project Manager. Marc oversaw and coordinated constructability reviews, managed self-performed operations, oversaw material procurement and construction submittals, and managed subcontracts to ensure successful project delivery. This project eased congestion by realigning 45th Street to make a four-way intersection at Calumet Avenue. With public concern over traffic, Walsh worked with the Town of Munster and INDOT to redesign maintenance of traffic to accommodate requests from stakeholders to maintain turn lanes and keep traffic flowing. The project scope included building an underpass (small tunnel) for 45th Street below existing Canadian National Railroad tracks. To construct this tunnel section, Walsh constructed a 2,400-foot-long shoo-fly track to temporarily relocate tracks. ***Reference:*** *Cortney Beale, PE, LaPorte District Construction Area Engineer | 219.873.6322; beale@indot.in.gov*


I-65 Northwest Indiana ATL
Lowell, IN | $64M


I-80/94 Kingery Expressway
Lansing, IL | $41M


I-80/94 Interchange Modification
Gary, IN | $100M

JOE KISLOWSKI
CONSTRUCTION MANAGER

FlexRoad Qualifications:
- Time-proven track record of working directly with owners and owner's representatives
- Strong professional relationship with subcontractors and vendors
- Long-time resident of Lake County

Years of Experience:
Construction Industry: 35
Employed with Walsh: 27

Education:
B.S., Construction Engineering, Michigan Technological University

Certifications:
- OSHA 30
- Silica Training
- First Aid/CPR/AED

South Shore Line Double Track
Michigan City, IN | $375M

Value to the FlexRoad Project:
Joe has experience managing the safe construction of portions of the 80/94 corridor and connecting interstates with high traffic volumes. He has recent preconstruction phase experience, working with Walsh's teams on the current Western Hills Viaduct (CMGC) and the Brent Spence Corridor (Progressive DB) projects in Cincinnati, Ohio. Like Marc, Joe is a long-time resident of Lake County, Indiana, with strong professional relationships with the local labor unions, and workforce and subcontracting community.

Role on the FlexRoad Project:
As Construction Manager, Joe will lead the construction team to construct the Project in accordance with the Contract Documents. He will provide oversight and supervision over the design team and review plans and submittals for constructability. It is his duty to ensure design documents align from the Preconstruction Phase into the Construction Phase. Joe will be available to resolve any issues during construction. Joe will be assigned to the project part-time during the Preconstruction Phase and full-time during the Construction Phase.

PROJECT EXPERIENCE HIGHLIGHTS

South Shore Line Double Track DT-1
Michigan City, IN | $375M | NICTD

Station Project Manager. Joe was responsible for project administration, staffing, and contract negotiation with subcontractors and suppliers. He oversaw construction, quality control, and the schedule, while tracking costs and maintaining close coordination among all project team members. The Walsh-led joint venture, along with subcontractor Meade, constructed a new second railroad track and other improvements within a 26.6-mile section of NICTD's existing South Shore Line between Gary and Michigan City, Indiana. Construction elements included a new separated two-track right-of-way in Michigan City, replacing the current street-running tracks; a new overhead contact system; new or modified railroad signals and control systems; reconstruction of at-grade crossings including new and modified grade crossing warning equipment; culvert replacements; passenger platform upgrades at five stations; additional surface parking lots; four new railroad bridges; and three types of retaining wall systems. ***Reference:*** *Nicole Barker, NICTD | 219.921.4263; Nicole.Barker@nictd.com*

I-65 NWI Added Travel Lanes Design-Build
Lowell, IN | $64M | INDOT

Construction Manager. Joe was responsible for the overall construction management of this design-build project, including scheduling, cost management, and day-to-day owner communication. The project widened a 13-mile stretch of I-65 from US 30 to SR 2 and reconstructed the Kankakee River Bridge. One additional travel lane was added on both northbound and southbound lanes of the busy interstate. In addition, the northbound and southbound bridges over the Kankakee River were replaced to allow for future expansion of the I-65 corridor. ***Reference:*** *Christien Reynolds, Area Engineer | 219.325.7524; creynolds1@indot.in.gov*

I-80/I-94 (Kingery Expressway) Phase 3P
Lansing, IL | $29M | IDOT

Project Manager. Joe supervised on-site teams and managed daily field operations, including project timelines, owner progress reports, and subcontractor coordination. He also monitored materials and equipment installed by subcontractors, enforced quality control, and ensured compliance with safety standards and contract requirements. This project involved the construction of approximately 1.5 miles of additional lanes along the inside lanes of I-80/94, partial removal and replacement of the structure over Railroad Avenue, and removal and replacement of the bridge over Burnham Avenue. The project also required electrical conduit installation, sign foundations, overhead signs, wick drains, and all incidental and collateral work. ***Reference:*** *Dave Cuthbertson Resident Engineer, Benesch | dcuthbertson@benesch.com*

Little Calumet River Flood Protection (Stage 8)
Munster, IN | $13M | USACE

Project Manager. Joe managed the project, including project start-up, staffing, and subcontract negotiation; and oversaw quality control, schedule, and cost accountability. This project constructed a levee and floodwall protection system consisting of 8,611 linear feet of earthen levee; 780 linear feet of sheet pile wall; and 7,762 linear feet of concrete and sheet pile floodwall. It also included access ramps, roads, one pedestrian bridge, gate-well structures, outlet improvements, drainage ditches, riprap for erosion control, and a recreational trail. ***Reference:*** *Sheldon Edd, District Engineer | 312.353.6400; sheldon.d.edd@usace.army.mil*

SR 25 Hoosier Heartland Phase 2D
Delphi, IN | $22M | INDOT

Project Manager. Joe was responsible for project management, scheduling, budget, and day-to-day owner communications. The project included new road and bridge construction on SR 25, consisting of 624,000 cubic yards of common excavation; 100,000 square yards of 9.5-inch PCCP; 27,000 square yards of pavement removal; 11,000 linear feet of piling; 1,900 cubic yards of substructure concrete; 1,200 cubic yards of footing concrete; 2,700 cubic yards of superstructure concrete; and 7,000 linear feet of concrete bulb tee beams; along with drainage, landscaping, and guardrail. ***Reference:*** *Nathaniel Pfeiffer, Construction Engineer | 855.463.6848; npfeiffer@indot.gov*

I-80/I-94 Drainage/Flood Protection
Gary, IN | $7M | INDOT

Project Manager. Joe was responsible for project management, scheduling, budget, and day-to-day owner communications. The project included drainage ditch correction and flood protection on I-80/94. This project consists of 124,000 SF of sheet pile wall with concrete facing, CIP reinforced concrete utility crossings, and 6 gatewell structures. ***Reference:*** *Martin Navarro INDOT Project Manager | 219.746.3313; Mnavarro1@indot.in.gov*

I-65 Northwest Indiana ATL
Lowell, IN | $64M

I-80/94 (Kingery Expressway)
Lansing, IL | $29M

SR 25 Hoosier Heartland
Delphi, IN | $22M

NICK MYERS
TSMO COORDINATOR

FlexRoad Qualifications:
- 20 years of experience in designing, building and maintaining ITS and ATM systems
- Extensive expertise in the fiber optic and ITS components required for TSMO projects

Years of Experience:
Construction Industry: 20
Employed with Meade: 20

Education:
B.S., Electrical and Computer Engineering, Bradley University

Certifications:
- Certified EIT – Illinois 2010
- Cisco CCNA - 2012

IDOT Electrical Maintenance Contract
IDOT District 1 | $39M/Year

Value to the FlexRoad Project:
Nick has 20 years of experience managing complex ITS and ATMS projects from the design stages through construction, testing, integration and maintenance. He has gained practical technological knowledge of all aspects of ITS projects, specifically fiber optics, CCTV systems, vehicle detection systems, Layer II and III networking and digital message signing.

Role on the FlexRoad Project:
As TSMO Coordinator, Nick will be responsible for bridging the gap between the design team and the ITS construction crews. He will regularly review ITS design aspects and work to identify potential constructability issues and generate cost effective solutions that work for the customer, designers, and construction team. Nick will keep open lines of communication with the designers and constructors to allow for early identification and resolution of potential problems before they can create project delays. Nick will be assigned to the project part-time during the Preconstruction and Construction Phases.

PROJECT EXPERIENCE HIGHLIGHTS

IDOT District 1 Electrical Maintenance Contract (62M86)
Multiple Locations in Illinois District 1 | $39M per year | IDOT

System Manager. Nick was responsible for overseeing the maintenance of IDOT District 1's comprehensive fiber optic and ITS systems, including hundreds of miles of fiber optics, vehicle detection, CCTV, ramp metering, PLC-controlled reversible lane controls" with "REVLAC Active Traffic Management controls, district-wide layer II and layer III redundant networks and DMS signs. ***Reference:*** *Long Tran, Electrical Maintenance Section Chief | 847.846.8391; long.tran@illinois.gov*

Edens Expressway ITS (IDOT 62D79)
Chicago, IL | $12M | IDOT

Assistant Project Manager. Nick was responsible for overseeing all ITS aspects of the construction of a new, advanced ITS system across the Edens Expressway in Illinois. This network consisted of 13 miles of fiber optics, 40 CCTV sites and 7 DMS signs. All ITS sites were incorporated into a redundant network topology and successfully integrated into IDOT's district-wide ATMS system. ***Reference:*** *Barry Woods, Bureau of Construction Resident Engineer | 847.544.8140; barry.woods@illinois.gov*

I-90/94/I-290 Circle Interchange (IDOT 60Y00)
Chicago, IL | $2.5M | IDOT

Project Manager. Nick was responsible for overseeing ITS construction of 2 miles of fiber optics, 8 CCTV sites, lighting, vehicle detection and a new communications shelter as part of multi-contract Circle Interchange rehabilitation. This project included the relocation and cutover of IDOT's most central fiber optic and network node, while coordinating with multi-discipline construction contracts through this high traffic interchange. ***Reference:*** *Holly Wilson, Bureau of Construction Resident Engineer | 224.661.2535; holly.wilson@illinois.gov*

Illinois Tollway Systemwide ITS Upgrade (ISTHA RR-22-9267) Multiple Locations, IL | $1.2M | ISTHA

Project Manager. Nick was responsible for overseeing the construction and integration of ITS system upgrades across multiple ISTHA locations including 86 CCTV cameras, 52 network switches, and 60 web power controllers. ***Reference:*** *Anthony Aladham, P.E., Project Manager | 630.241.6800, Ext. 4234; aaladham@getipass.com*

I-55 ITS Improvements (IDOT 62K30 & 62K51)
Will County, IL | $750K | IDOT

Project Manager. Nick was responsible for overseeing the construction of upgraded vehicle detection systems on both northbound and southbound I-55 spanning 20 miles between I-355 and I-80. These systems included 16 detection controllers, 9 repeaters, and 176 wireless vehicle detectors. Key to this project was the configuration, testing, and integration of these 176 wireless vehicle detectors into IDOT's district-wide ATMS system. ***Reference:*** *Tim Vedder, P.E., Senior Project Manager | 847.533.4892; tvedder@rmchin.com*

Metra Fiber Optic Install Southwest Service Rock Island Chicago Area, IL | $28.7M | Metra

Fiber Optic Systems Manager. Nick was responsible for overseeing and coordinating the installation, slicing and testing of over 90 miles of microfiber optic cabling throughout the Metra southwest service area. This project was successfully completed on time and under budget while navigating an aggressive schedule and unforeseen delays due to a global pandemic. ***Reference:*** *Renee Alexis Webb, Senior Telecommunications Engineer | 312.322.6605; rwebb@metrarr.com*

IDOT REVLAC PLC Replacement (IDOT 62F40)
Chicago, IL | $1.3M | IDOT

Project Manager. Nick managed a turn-key project to modernize and replace the 20 year old PLC processors, programming, and communications for the REVLAC active traffic management system on the Kennedy Expressway in Chicago. He coordinated with both the DOT and the specialized integrator to develop a comprehensive testing procedure, while overseeing an aggressive and flexible construction scheduled designed to minimize any impacts to the motoring public. This project was able to successfully streamline the automation to drastically reduce system interruptions, while increasing communications resiliency by building a new network topology. ***Reference****: Shearrisa M. Phillips-Hatcher, P.E., Senior Resident Engineer | 630.766.0653; shearrisa.hatcher@illinois.gov*


Edens Expressway ITS
Chicago, IL | $12M


I-90/94/I-290 Circle Interchang
Chicago, IL | $2.5M


Metra Fiber Optic Southwest Service
Chicago Area, IL | $28.7M

SCOTT MYERS
CONSTRUCTION QUALITY MANAGER

FlexRoad Qualifications:
- 28 years of experience, primarily working with highway technology projects
- Experience working on the first smart corridor in the region
- Extensive experience with ITS integration systems
- Proven history of completing highly technical construction projects with similar components to FlexRoad

Years of Experience:
Construction Industry: 28
Years with Meade: 27

Education:
B.S., Electrical and Computer Engineering, University of Wisconsin–Madison (Specialty in Communication Systems)

Certifications:
- Certified EIT – Wisconsin 2001

I-90 Jane Adams Smart Corridor
Chicago Area, IL | $28.2M

Value to the FlexRoad Project:
Scott has a long history of successfully bridging the gap between the technical engineering side of the work with the field construction work. He has experience in all aspects of the construction process, from design, procurement, and material coordination to the installation and integration support. Scott worked with the Illinois Tollway on the first smart corridor in the region. Combined with his design-build experience, Scott can evaluate and identify quality and performance improvements throughout the entire project duration, with an emphasis on intelligent transportation systems.

Role on the FlexRoad Project:
As Construction Quality Manager, Scott Myers, will oversee work with the construction team to develop hold points for both material and processes. This will be closely coordinated with the construction manager, TSMO coordinator, MOT manager and safety team. Process plans will be developed and maintained as a living document, being modified as needed to allow the project to move forward with the highest level of quality and performance, always with a focus on safety of our team, the motoring public and the customer maintenance staff who will inherit the product that our team will build. Scott will have stop-work authority over the construction process if needed to maintain the high standards set forth by the Project Executives and Authorized Representative. Scott has over 20 years of experience working with ITS technologies in various roles. He has worked on contracts with IDOT as the owner's representative for evaluation of emerging technologies as well as the project manager on large-scale ITS construction projects. Scott will be assigned to the project part-time during the Term of the Agreement.

PROJECT EXPERIENCE HIGHLIGHTS

I-90 Jane Adams Tollway Smart Corridor/ITS (I-15-4227R)
Chicago Area, IL | $28.2M | ISTHA

Project Manager. Scott managed and provided technical leadership for all material, equipment, supplies and labor to successfully complete the smart corridor project. Scott oversaw all aspects of the quality program. Attended all quality audits, verified all activity on daily reports and signed off on all quality related documentation. He coordinated with multiple mainline contracts for access to and installation of 23 gantries containing 386 dynamic messaging signs, 23 control buildings, 82 cameras and 65 microwave vehicle detection systems. This project was the first smart corridor in the greater Chicago area. ***Reference:*** *Anthony Aladham, P.E., DPM | 312.933.7919; aaladham@getipass.com*

I-465 Phases 3 and 4 Advanced Traffic Management Systems (R-28107)

Indianapolis, IN | $11.6M | INDOT

Project Manager. Scott was responsible for managing and providing technical leadership to furnish and install all material, equipment, supplies, labor, and incidentals required to enable communications from all the remote ITS sites and field equipment on this project. In addition, he provided technical support on the integration of these sites and associated field components of this phase of the ATMS project such that these devices are functional and operational as part of the overall ATMS. The Indianapolis ATMS is part of TrafficWise, an ITS implementation in the state of Indiana. The ATMS consists of a communications subsystem to provide wireless/wireline connectivity between DMS, HAR, CCTV, traffic detection devices, incident response and Hoosier Helper personnel, and management personnel. ***Reference:*** *Troy Boyd, Division Director of the Technology Department | 574.806.3695; Troy.Boyd@aecom.com*

I-80/94 Borman Expressway ITS Advanced Traffic Management Systems (T-29786-A)

Lake County, IN | $7M | INDOT

Deputy Project Manager. Scott was responsible for assistant managing and providing technical support for furnishing and installation of all material, equipment, supplies, labor, and incidentals required to enable communications from all the remote ITS sites and field equipment on this project. In addition, he provided technical support on the integration of these sites and associated field components of this phase of the ATMS project such that these devices are functional and operational as part of the overall ATMS. ***Reference:*** *Troy Boyd, Division Director of the Technology Department | 574.806.3695; Troy.Boyd@aecom.com*

I-465 Phase 5 ITS Advanced Traffic Management Systems (ST-29054-A)

Indianapolis, IN | $3.59M | INDOT

Project Manager. Scott managed and provided technical leadership for this project to enable communications from all the remote ITS sites and field equipment, which included the furnishing and installation of all material, equipment, supplies, labor, and incidentals required. Scott also coordinated directly with the INDOT resident engineer on all quality related reporting and verified all quantities and certifications for materials and subcontractors. The main component in this advanced communications network was the installation of 20 miles of single mode fiber. In addition, Scott provided technical support on the integration of these sites and associated field components of this phase of the ATMS project such that these devices are functional and operational as part of the overall ATMS. ***Reference:*** *Troy Boyd, Division Director of the Technology Department | 574.806.3695; Troy.Boyd@aecom.com*

I-355, I-294, I-88 System Wide Camera and Ramp Detection (RR-18-9017)

Multiple Locations, IL | $2.1M | ISTHA

Project Manager. Scott was responsible for managing and providing technical leadership for all material, equipment, supplies and labor to successfully complete the systemwide ITS upgrade. Scott also oversaw all aspects of the quality program. Attended all quality audits, verified all activity on daily reports and signed off on all quality related documentation. He successfully led the installation of 14 cameras and 7 microwave vehicle detection systems. ***Reference:*** *Anthony Aladham, P.E., DPM | 312.933.7919; aaladham@getipass.com*

I-80/94 Borman Expressway
Lake County, IN | $7M

I-465 Phases 3 and 4 ATMS
Indianapolis, IN | $11.6M

System Wide Camera/ Ramp Detection
Multiple Locations, IL | $2.1M

MARK HEDRICK, P.E.
MAINTENANCE OF TRAFFIC MANAGER

FlexRoad Qualifications:
- Managed multiple design-build projects with major bridges, multiple interchanges, and challenging MOT including Super 70, Innerbelt Bridge, I-480 Valley View Bridge, and I-69 Section 6 Contract 5
- Has CMGC experience through the Western Hills Viaduct Replacement project
- Innovative leader that challenges staff for creative cost-efficient solutions

Years of Experience:
Construction Industry: 27
Employed with Walsh: 20

Education:
BCE, Civil Engineering, Cleveland State University

Certifications:
- Professional Engineer: Indiana, Ohio, Maine
- ATSSA Work Zone Traffic Supervisor

I-69 Section 6, Contract 5
Marion/Johnson County, IN | $723M

Value to the FlexRoad Project:
Mark brings experience from four alternative delivery projects to this role. With his engineering education and background and experience managing MOT on large-scale projects, Mark is well-suited to this role to work with the design team to produce constructible MOT solutions that he will then oversee during construction. He has current CMGC experience through the Western Hills Viaduct Replacement project.

Role on the FlexRoad Project:
As MOT Manager, Mark will be responsible for implementing traffic management strategies and providing supervision of any worksite traffic supervisor duties. He will coordinate all MOT activities, submit weekly MOT reports, and implement the Transportation Management Plan, as well as coordinate the MOT plan design. Mark will be assigned to the project part-time during the Preconstruction and Construction Phases.

PROJECT EXPERIENCE HIGHLIGHTS

I-69 Section 6, Contract 5 Design-Build
Indianapolis, IN | $728M | INDOT

MOT/Design Project Manager. Mark manages the design and implementation of traffic phases and coordinates with outside agencies. He oversees incident management and ensures that traffic facilities are up to standard. In addition to MOT and incident management, Mark coordinates with the designers and owner's representatives to process FDC/NDC documentation and finalize red-line documents. I-69 Section 6 Contract 5 is the pivotal, last connecting piece of the I-69 Evansville to Indianapolis program. Walsh is leading the design-build team to design and construct this large-scale best-value project in Marion and Johnson Counties. The project improves the safety and operations of the corridor and includes approximately 42 new or replacement bridges, 7 rehabilitation or preventative maintenance bridges, 4 million cubic yards of earthwork, and replacement of approximately 168 lane miles of pavement. ***Reference:*** *Chad Nierman, P.E., INDOT Greenfield District Area Engineer | 317.694.8292; cnierman@indot.in.gov*

I-480 Valley View Bridge Rehabilitation Design-Build
Independence, OH | $229M | ODOT

Project Manager. Mark oversaw drainage and earthwork activities and utility coordination, and assisted with maintenance of traffic operational issues and design changes as needed. He was heavily involved in the design process from award of the project through release for construction. His design responsibilities included roadway, drainage, MOT, lighting, SWPPP, utilities,

and railroads. The project included rehabilitation of the dual-span Valley View Bridge that carries I-480 traffic nearly 200 feet above the Cuyahoga River Valley and a new four-lane center structure to increase capacity. During the project pursuit, Walsh coordinated closely with designers, construction engineers, and gantry crane manufacturers to develop an erection plan to tackle the project's unique challenges. This innovation involved using custom-built transverse gantry cranes to construct the new center structure. Traffic was migrated to this center structure while repairs were made on the existing bridges, allowing bridge re-decking to be performed in phases to minimize traffic congestion and delay. Walsh also coordinated closely with geotechnical engineers to develop a pile setup ATC, saving over 20 miles of piling during construction. Both efforts resulted in significant savings on construction costs and a low bid well under ODOT's estimate. ***Reference:*** *Kirk Gegick, P.E., Former ODOT Project Manager/Area Engineer | 330.703.3461; kgegick@gpinet.com*

Black River Tunnel Project

Lorain, OH | $58M | City of Lorain, Ohio

Project Manager. Mark was responsible for all day-to-day operations for this project to construct sewage storage and conveyance facility. Some of his responsibilities included managing the project team, procuring equipment, materials and subcontractors, maintaining the project schedule, tracking change orders, contractor safety and compliance, final commissioning, and invoicing. The project involved construction of two deep shafts connected via a tunnel, a screenings facility, and a pump station control building. ***Reference:*** *Alexander Berki, Superintendent Black River WWTP | 440.204.2040; alex_berki@cityoflorain.org*

Westbound I-90 Innerbelt Bridge Design-Build

Cleveland, OH | $294M | ODOT

Assistant Project Manager. Mark was responsible for the extensive rail and utility coordination on this project, working with the Greater Cleveland Regional Transit Authority, Norfolk Southern, and CSX. He also handled coordination for the demolition of 16 buildings, working with ODOT and the demolition contractor to develop demolition plans, inspect buildings, disconnect utilities, and coordinate road closures. Walsh constructed a 3,000-foot-long steel delta girder bridge with 16 other non-viaduct structures. Located on a major interstate highway, the project involved several heavily traveled local streets that required numerous MOT phases. ***Reference:*** *Kirk Gegick, PE, Former ODOT Project Manager/Area Engineer | 330.703.3461; kgegick@gpinet.com*

I-70 "Super 70" Design-Build (East Reconstruction)

Indianapolis, IN | $106M | INDOT

Assistant Project Manager. Mark was responsible for construction of bridges and railroad coordination with Norfolk Southern Railroad. He was also responsible for scheduling, subcontractor coordination, construction submittals, utility coordination, maintenance of traffic, and assisting in the management of self-performed work and survey crews. This project consisted of two separate contracts to reconstruct and widen six miles of I-70 on the east side of Indianapolis. Walsh worked closely with INDOT personnel to create a fast-tracked schedule that enabled the team to quickly complete the projects--one of the contracts 30 days ahead of schedule--minimizing the duration of traffic impacts. ***Reference:*** *Elsadig Ibrahim, FHWA Transportation Engineer| 317.340.7160; elsadig.ibrahim@dot.gov*

I-480 Valley View Bridge
Independence, OH | $229M

Black River Tunnel Project
Lorain, OH | $58M

Westbound I-90 Innerbelt Bridge
Cleveland, OH | $294

STEVE HANCHAR
LEAD ESTIMATOR

FlexRoad Qualifications:
- 30 years of significant experience preparing production-based construction cost estimates, managing risk, and managing construction schedules for projects with similar scope and complexity throughout the Midwest
- CMGC and Progressive Design-Build cost estimating experience on Western Hills Viaduct and Brent Spence Bridge
- Long-time resident of Northwest Indiana

Years of Experience:
Construction Industry: 30
Employed with Walsh: 30

Education:
B.S., Education,
Purdue University

Certifications:
- HCSS HeavyBid Estimating Software
- OSHA 30 Hour

I-69 Section 6, Contract 5
Marion/Johnson County, IN | $723M

Value to the FlexRoad Project:
Steve has worked with Walsh for 30 years serving in both estimating and project management roles. He has been involved with estimating throughout his career. He has experience working closely with design and owner teams through his involvement on design-build projects for over 10 years. Steve is the lead estimator on Walsh's current Western Hills Viaduct (CMGC) and the Brent Spence Corridor (Progressive Design-Build) Projects. Steve has a history of building strong working relationships with the ICE firms during the preconstruction process to develop an open and transparent project cost model.

Role on the FlexRoad Project:
As Lead Estimator, Steve will lead the estimating team for this Project. He will coordinate with our preconstruction team to review design details and construction methods to prepare these estimates. He will initiate and participate in cost reduction efforts and schedule saving scenarios during construction. Steve will be assigned to the project part-time during the Preconstruction and Construction Phases, with periods of greater availability when needed.

PROJECT EXPERIENCE HIGHLIGHTS

I-69 Section 6 Contract 5 Design-Build
Indianapolis, IN | $728M | INDOT

Estimator / Pursuit Task Team Lead. Steve was the lead estimator for the procurement of the project. His responsibilities were setting up the estimate, reviewing the contract documents, reconciling quantities, and estimating select portions of the work to submit a price proposal. Steve worked with the design team to take the owner-supplied concept drawings to a level where the project team was able to estimate the project, analyze risk, and submit pricing. Steve was also involved during one-on-one meetings with the owner. I-69 Section 6 Contract 5 is the pivotal, last connecting piece of the I-69 Evansville to Indianapolis program. Walsh is leading the design-build team to design and construct this large-scale, best-value project in Marion and Johnson counties. The project improves the safety and operations of the corridor and includes approximately 42 new or replacement bridges, 7 rehabilitation or preventative maintenance bridges, 4 million cubic yards of earthwork, and replacement of approximately 168 lane miles of pavement.
Reference: *Andrew Pangallo, INDOT Construction Manager | 317.946.9855; apangallo@indot.in.gov*

I-480 Valley View Bridge Rehabilitation Design-Build
Independence, OH | $227M | ODOT

Lead Estimator. Steve set up the estimate, reviewed the contract documents, and estimated portions of the work. He worked with the design team to advance the owner-supplied concept drawings to a level from which the project team was able to perform the estimate, analyze risk, and submit pricing. Steve was also involved during one-on-one meetings with the owner. The project included rehabilitation of the dual-span Valley View Bridge that carries I-480 traffic nearly 200 feet above the Cuyahoga River Valley and a new four-lane center structure. During the pursuit, Walsh coordinated with designers, construction engineers, and gantry crane manufacturers to develop an innovative erection plan that involved using custom-built transverse gantry cranes to construct the new center structure. Traffic was then moved to this center structure while repairs were made on the existing bridges, allowing bridge re-decking to be performed in phases and minimizing traffic congestion and delay. Walsh also coordinated closely with geotechnical engineers to develop a pile setup ATC, saving over 20 miles of piling during construction. Both efforts resulted in significant savings on construction costs and a low bid well under ODOT's estimate. ***Reference:*** *Kirk Gegick, P.E., Former ODOT Project Manager/Area Manager | 330.703.3461; kgegick@gpinet.com*

NICTD Double Track Project 1
Gary and Michigan City, IN | $375M | NICTD

Lead Estimator. Steve set up the estimate, reviewed the contract documents, and estimated select portions of the work to submit a price proposal. Steve also facilitated one-on-one meetings with the owner. Upon project award, Steve transitioned to a project management role, overseeing bridge and wall work, including temporary support of excavation, and managed change order pricing. The Walsh-led joint venture, along with subcontractor Meade, constructed a new second railroad track and other improvements within a 26.6-mile section of NICTD's existing South Shore Line between Gary and Michigan City, Indiana. Construction elements included a new separated two-track right-of-way in Michigan City, replacing the current street-running tracks; a new overhead contact system; new or modified railroad signals and control systems; reconstruction of at-grade crossings including new and modified grade crossing warning equipment; culvert replacements; passenger platform upgrades at five stations; surface parking lots; four new railroad bridges; and three types of retaining wall systems. ***Reference:*** *Michael Rowe, NICTD Project Development Engineer | 219.926.5744, Ext. 316; Michael.Rowe@nictd.com*

I-74/I-75 Mill Creek Expressway Ph. 5A Design-Build
Cincinnati, OH | $87M | ODOT

Lead Estimator. Steve set up the estimate, reviewed the contract documents, reconciled quantities, and estimated portions of the work to submit a price proposal. He worked alongside the design team to advance the owner-supplied concept drawings to a level from which the project team was able to estimate the project, analyze risk, and submit responsive pricing. He was also involved during one-on-one meetings with the owner. Once the project was awarded, Steve was involved with the project set-up, including project buy-out, scheduling, and reviewing final construction drawings. Construction included adding both a northbound and southbound I-75 thru-lane, replacing the I-75 mainline pavement south of Ludlow Avenue, resurfacing the pavement north of Ludlow Avenue, and separating the combined sewer system within the ODOT right-of-way. ***Reference:*** *Eric Kahlig, P.E., Alternative Project Delivery Administrator | 614.738.1111; Eric.Kahlig@dot.ohio.gov*

I-480 Valley View Bridge
Independence, OH | $229M

NICTD Double Track
Gary and Michigan City, IN | $375M

I-74/I-75 Mill Creek Expressway
Cincinnati, OH | $87M

JAMES M. (MATT) MARTIN
PROJECT SCHEDULER

FlexRoad Qualifications:
- Experience with working on and scheduling large, high-profile construction projects
- Experience with alternative delivery with specialized expertise in the CMGC delivery method
- Proficient in using Primavera P6 software

Years of Experience:
Construction Experience: 27
Employed with Walsh: 23

Education:
B.S., Civil Engineering,
University of Evansville

Certifications:
- EIT
- OSHA 30 Hour

I-69 Section 6, Contract 5
Marion/Johnson County, IN | $723M

Value to the FlexRoad Project:
Matt has worked with Walsh for 23 years serving in project management and project scheduling roles. His experience includes developing and managing complex schedules for large-scale projects involving thousands of activities. He led in the creation of the effective recovery schedule for the I-69 Section 5 project and assisted with project controls on INDOT's largest-ever project, the Ohio River Bridges East End Crossing P3. Matt is a scheduler on the Brent Spence Corridor (Progressive Design-Build) project in Cincinnati, Ohio.

Role on the FlexRoad Project:
As Project Scheduler, Matt will be responsible for developing and maintaining the Project Schedule and associated submittals. He will also be responsible for schedule change management incorporating contract revisions and providing what-if scenarios to assist the team in developing schedule solutions. Matt will be assigned to the project part-time during the Preconstruction and Construction Phases.

PROJECT EXPERIENCE HIGHLIGHTS

I-69 Section 6, Contract 5 Design-Build
Indianapolis, IN | $728M | INDOT

Project Scheduler. Matt was responsible for creating and updating the project schedule using Primavera P6 with monthly submittals to IFA/INDOT for review and approval. I-69 Section 6 Contract 5 is the pivotal, last connecting piece of the I-69 Evansville to Indianapolis program. Walsh is leading the design-build team to design and construct this large-scale, best-value project in Marion and Johnson counties. The project improves the safety and operations of the corridor and includes approximately 42 new or replacement bridges, 7 rehabilitation or preventative maintenance bridges, 4 million cubic yards of earthwork, and replacement of approximately 168 lane miles of pavement. ***Reference:*** *Chad Nierman, District Area Engineer | 317.694.8292; D30NIER@indot.in.gov*

I-69 Section 6, Contract 2
Martinsville, IN | $196M | INDOT

Project Scheduler. Matt created and updated the overall project schedule, developed and maintained weekly project schedules, and managed subcontractors, contracts, financial, and day-to-day operations. Construction included four miles of new I-69 mainline from SR 39 to Morgan Street, and interchanges at SR 252 and SR 44. This contract is part of the I-69 Evansville to Indianapolis program and upgrades the existing SR 37 facility to interstate standards.

The contract included construction of 13 bridge structures, 1.2 million cubic yards of cut, 700,000 cubic yards of embankment, 75,000 square feet of soundwall, 165,000 tons of asphalt, 273,000 square yards of concrete paving and all appurtenances. ***Reference:*** *Tyler Kovacs, INDOT Project Engineer | 812.525.9215; kovacs@indot.IN.gov*

I-69 Section 5 Construction Manager

Bloomington, IN | $400M | INDOT

Project Manager. Matt was responsible for creating and updating the overall project schedule, creating and maintaining weekly project schedules, and assisting with managing financials. After terminating the contractual relationship with the original developer on this P3 project, INDOT selected Walsh to perform construction management services to successfully complete the 21-mile section of interstate running from Bloomington to Martinsville, Indiana. ***Reference:*** *Sandra Flum, INDOT Senior Project Manager | 312.650.9237; sflum@indot.in.gov*

Ohio River Bridges East End Crossing P3

Utica, IN | $792M | INDOT

Project Manager. Matt managed project controls and issue resolution, material testing analysis, overall documentation auditing, as-built drawings, and quality assurance for the Indiana roadway and paving work. This complex project extended I-265 from its interchange with I-65 in Utica, Indiana, to I-71 in Prospect, Kentucky. The project team's transparent approach to project management fostered a trusting relationship between multiple stakeholders, allowing this complex public-private partnership design-build project to finish on time and under budget. ***Reference:*** *Ron Heustis (Retired)*

Cannelton Hydroelectric Project

Hawesville, KY | $243M | American Municipal Power Inc.

Project Manager/Scheduler. Matt was responsible for setting up and maintaining the baseline schedule, incorporating thousands of activities including major subcontractor work and fabricator timelines. Matt was also responsible for managing financials and owner correspondence. This complex hydroelectric project diverts water from the locks and dam through a new powerhouse. Construction included 950,000 cubic yards of underwater excavation, 450,000 cubic yards of earth excavation, 100,000 cubic yards of structural concrete, and 6,700 tons of reinforcing steel, as well as mechanical, electrical, and turbine assembly. ***Reference:*** *Pete Crusse, VP of Hydroelectric Construction (Retired) | 614.361.3417*

SR 62 at Fulton Avenue

Evansville, IN | $30M | INDOT

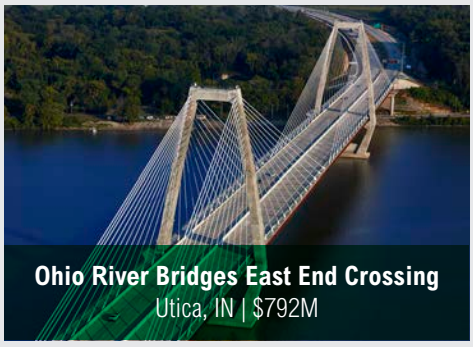
Project Manager. Matt was responsible for coordinating day-to-day activities, managing subcontractors, updating the schedule, and managing financials. This project involved construction of a new interchange with added travel lanes on SR 62 at Fulton Avenue in Evansville, Indiana. ***Reference:*** *Patrick Craig, INDOT District Area Engineer | 812.895.7425; pcraig@indot.IN.gov*

I-70 "Super 70" Design-Build (East Reconstruction)

Indianapolis, IN | $106M | INDOT

Assistant Project Manager. Matt provided supervision of on-site teams and manages daily field operations including management of project timelines, development of progress reports for owner meetings, and coordination / supervision of contractors. This project consisted of two separate contracts to reconstruct and widen six miles of I-70 on the east side of Indianapolis. ***Reference:*** *Elsadig Ibrahim, FHWA Transportation Engineer| 317.340.7160; elsadig.ibrahim@dot.gov*

I-69 Section 5
Bloomington, IN | $400M



Ohio River Bridges East End Crossing
Utica, IN | $792M

Cannelton Hydroelectric Project
Hawesville, KY | $243M

4

PROJECT UNDERSTANDING AND APPROACH

WALSH MEADE
JOINT VENTURE

4 PROJECT UNDERSTANDING AND APPROACH

The success of the FlexRoad Project requires an experienced team that is prepared to collaborate with INDOT to deliver on the Project and Contract Goals. WMJV will work collaboratively with INDOT and Parsons to promote innovation throughout design and complete the Project within the established project budget and schedule.

Aligning Project Goals During Preconstruction and Construction Phase

Walsh has performed extensive work on portions of the 80/94 interstate, and Meade was the original designer/constructor of the Borman Expressway's original fiber optic system. Many of our Key Personnel live in the area and drive this stretch of interstate regularly, so we understand well the mobility, safety, and reliability challenges of the corridor from both technical and user perspectives. These experiences will prove beneficial in achieving the Project Goals that ultimately improve safety, mobility, and reliability of the roadway, and minimize impacts to the surrounding environment.

WMJV will work collaboratively and openly with INDOT and Parsons to achieve the Contract Goals:

- Provide iterative sharing of cost and pricing information to provide fair price
- Maximize use of the Project budget to provide the best value to the Department
- Incorporate innovative project management processes to maximize efficiency
- Realize the benefits of construction manager/general contractor project delivery

Effective CMGC project delivery relies on a relationship of trust, transparency, and easy collaboration. The WMJV leadership will promote these principles at every decision point. Our team provides INDOT with well-developed internal management and operational procedures. This includes our ability to effectively integrate with project owners using the CMGC delivery method. We have developed a detailed plan for all roles and responsibilities, placing an emphasis on internal and external communications, clear lines of authority and responsibility, and collaboration across all levels of the project organization.

COLLABORATIVE MANAGEMENT STRUCTURE AND RESOURCING

Our CMGC Project Management Plan (PMP) will serve as a how-to guide for successful preconstruction, construction, and delivery of INDOT's Project Goals. Within the plan, we address team organization, staffing, processes and procedures, and the necessary internal and external coordination to succeed. We will take the lessons learned from previous and current CMGC projects and implement them on the FlexRoad Project.

Cooperative Spirit

Our PMP will address coordination approaches to maintain the Project's cooperative spirit. **Project Manager Marc Arena** and Key Personnel were selected in part for their ability to effectively communicate and collaborate. Our personnel bring relationships with INDOT, stakeholders, affected utilities, local vendors, and local labor unions.

KEY COMPONENTS OF WMJV'S CMGC MANAGEMENT APPROACH – GUIDED BY 3 CORE PRINCIPLES

1 Open and Honest Communication — 2 Mutual Accountability — 3 Innovative Thinking

- Single point of responsibility
- Clear lines of reporting
- Issues resolved at the lowest appropriate level
- Partner with INDOT staff, third parties, and stakeholders
- Leadership of all tasks by experienced personnel
- Design and construction integration through task groups
- Effective coordination meetings

Plans and Processes

Our PMP will include subplans for managing all elements of the work, including site-specific safety, quality, risk management, subcontracting and procurement, DBE outreach and performance, and project controls. WMJV will coordinate with INDOT to establish communication processes throughout the CMGC process. These protocols include:

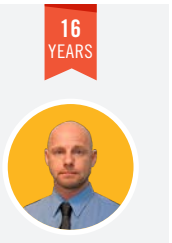
- Structured meeting schedule
- Collaborative workshops
- Electronic management system
- Over-the-shoulder reviews
- Issue escalation/resolution
- Cost and schedule reporting
- Cost analysis of alternative design solutions

Commitment to Quality

For the FlexRoad Project, our team provides the added benefit of quality experts in both ITS and highway construction. **Construction Quality Manager Scott Myers** and **Highway Quality Manager Darin Crain** will champion quality throughout the project. They will promote quality culture, raise awareness, recognize and reward good practices, take initiative, support our work planning, share lessons, and be visible to the field, office, and INDOT.

Scott and Darin will develop the project-specific Construction Phase Quality Management Plan (CPQMP) in collaboration with the project team and INDOT. The CPQMP will conform with the requirements of the contract documents and describe all significant actions required to guide our quality effort and confirm compliance with technical requirements and the Released for Construction documents. The CPQMP will provide the basis for management and delivery of QC activities, including requirements for materials, products, completed construction, testing, monitoring, supervision, inspection, documentation, and correcting non-conforming work.

DEDICATED HIGHWAY QUALITY MANAGER
Darin Crain's experience includes large alternative delivery, complex interchanges, and earthwork projects. Working closely with Construction Quality Manager Scott Myers, Darin will provide highway expertise to ensure the highest level of quality standards for the FlexRoad Project.



COLLABORATION WITH THE DESIGNER

WMJV will collaborate with INDOT and Parsons by providing baseline comments and pricing on the Stage 2 (60%) design and subsequent progressive review and pricing cycles to meet INDOT's design parameters and budget. **Project Manager Marc Arena's** approach to design collaboration promotes an environment of trust, teamwork, and innovative problem solving. Marc has successfully implemented these methods of design collaboration on multiple INDOT alternative delivery projects. With our team's cooperative spirit, ideas will be mutually developed by all project team members and stakeholders for a "no surprises" approach.

Design Partnering Workshop

This Project requires a team-first approach and seamless engagement among team members at the outset of preconstruction. We will hold a Kickoff Design Partnering Workshop to establish trust among participants, create a shared vision of design success, and define actionable steps towards accomplishing the Project Goals. During this initial workshop, we will present our methods of conceptual design cost estimating, which produces prompt budgetary estimates and leverages our team's experience through an innovative value engineering approach to maintaining the Project budget.

The focus will be on early planning for construction staging and phasing; materials; constructability; traffic control; stormwater management; permitting; utilities; TSMO hardware, software, and equipment installation and integration; and right-of-way. We will also identify long-lead time items. These elements represent the more complicated aspects of the Project and the areas where we can combine the experience and knowledge of all members of the team to generate value-additive ideas.

Interactive Design Sessions

We propose conducting a series of Interactive Design Sessions to review design concepts and share our review of the RFP preliminary plans. One of the primary topics will be follow-up discussions and the development of potential innovations. WMJV's ability to self-perform nearly every aspect of the scope provides the advantage of having in-house expertise to drive these conversations.

Design Collaboration Tools

WMJV draws from a deep set of alternative delivery experiences. Our library of project management plans and design coordination processes will be available to tailor and implement during preconstruction, and our constructability reviews will be informed by an archive of similar projects. We will host focused design comment resolution meetings to achieve consensus, and archive comments in the event a design decision requires revisiting.

APPROACH TO RISK AND INNOVATION

WMJV member firms have a long history of working with INDOT and fostering a cooperative spirit on similarly complex projects. We are motivated to maximize innovation, while managing risk, to reduce costs so that the Project remains within budget and viable. Our experienced team will partner with INDOT on these value additive solutions during preconstruction, to culminate in a successful CMGC project.

Risk Management

The CMGC delivery method provides the opportunity to lower Project risk during preconstruction for greater budget and schedule certainty during the construction phase. Our team will begin collaborating with INDOT on risk management strategies immediately following project award. At the kickoff meeting, we will create the Risk Register drawing upon the combined expertise of WMJV, INDOT, and the ICE. Based on our experience along the corridor, our team identified key challenges and potential solutions (**FIGURE 5 ON PAGE 4-6**). We will also use the Risk Register to identify critical items on the Project and evaluate the impact on cost, schedule, and other factors to place the scope of work with those best suited to mitigate risk events.

Innovation Workshop

Our innovation process starts with brainstorming sessions to bring all ideas to the table. The team will then evaluate the merits of these solutions and present INDOT with the advantages and disadvantages of the innovations alongside their cost and schedule impacts to determine which ideas bring the most value to the Project.

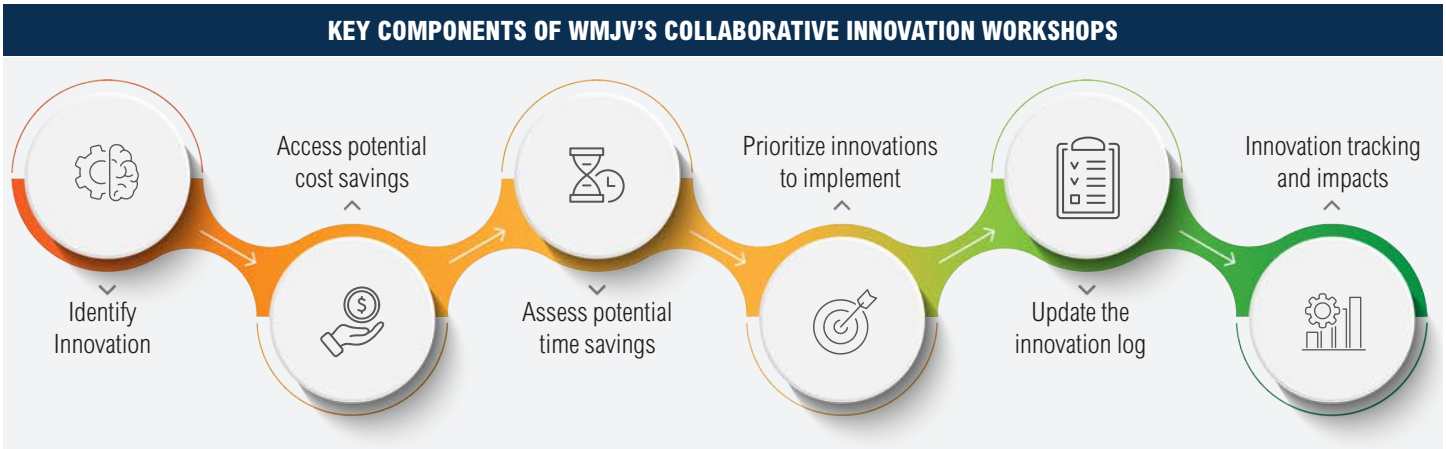
This iterative process will be a significant focus in the first 60 days as it is one of the foundations for the ultimate success of the Project. The iterative coordination and approval process will foster the responsible development of innovations (**FIGURE 2**).

Along with cost, schedule impacts, and technical merit, other innovation considerations will include:

- Impact on Project risk
- Potential impacts on right-of-way or utility relocations
- Long-term maintenance and operations considerations
- Review of potential impacts to existing permits or environmental commitments

WMJV brings extensive experience to the innovation process through our long resume of successful alternative delivery projects. We analyze each project for the elements that are cost and schedule drivers, and therefore likely to generate impactful innovation. Potential innovation drivers for the FlexRoad scope of work include optimizing schedule and cost through contractor input and design collaboration on maintenance of traffic, project phasing, paving, drainage, and ITS equipment, signing, and integration.

FIGURE 2 // INNOVATION WORKSHOPS



ESTIMATING AND COST MANAGEMENT

WMJV will work with INDOT to maximize the value and quality of the design to deliver a safe, efficient, and cost-effective Project. Critical to this effort will be establishing communications with the Independent Cost Estimator (ICE) firm, KMC, to develop the baseline Cost Model structure, input standards, and assumptions to be used for WMJV's Pricing Milestone Estimates (PMEs). To maintain a level of certainty in these PMEs, we will conduct risk management workshops with INDOT through all project phases to adopt a collaborative approach to risk identification, pricing, and allocation. We will also review the schedule as we are identifying the risks and pricing the Project.

Pricing and Subcontracting

WMJV is committed to an open-book approach that provides transparency and trust in the best use of available funds. The principal benefits of this to INDOT will be increasingly greater budget certainty throughout preconstruction, and a cooperatively developed bid price contingency to further minimize the need for change orders during construction.

Early in preconstruction, WMJV will collaborate with the Project team and ICE through an initial estimate coordination workshop to develop and align a bid package structure, item list, and format for progressive cost estimates (**FIGURE 3**). The control estimate will form the basis of all future estimates.

To assist the Project team in tracking and monetizing the control estimate, we will maintain an easy-to-use Cost and Schedule Event Tracker, using Microsoft Excel, that will be refreshed at each design milestone submission. We will catalog shifts in design concepts, tabulate and analyze cost, schedule, and risk impact, and ultimately show development of the design as it relates to the baseline. This tool gives all parties the opportunity to evaluate the direction of the overall project or a specific design decision. This information will be maintained throughout the preconstruction process to show the Project's evolution at any time.

Our team's ability to self-perform work will have a positive impact on the project schedule, quality, and cost. WMJV can perform four out of the seven prequalifications, including the following major scopes of work:

- Concrete patching and rehabilitation work
- Drainage and maintenance of traffic
- Fiber optic infrastructure installation, conduit, vaults, HHs, fiber, splicing, testing and commissioning
- ITS device, dynamic signs, and ramp metering procurement, installation and commissioning

Self-performance decisions are ultimately made in conjunction with our Subcontracting Plan. We have strong relationships with local subcontractors and suppliers, and we will solicit pricing for work we can self-perform to arrive at the most economical solution for INDOT. Strategic subcontract work packaging is critical to reducing total cost, mitigating risks, and maximizing participation from local and DBE subcontractors.

FIGURE 3 // PRICING PACKAGE PLAN

Open-Book Pricing Processes, Organization, Disclosures to Project Participants

WMJV will use HCSS HeavyBid software to create a project-specific workflow with activities of work and estimate details, solicit quotes, and analyze subcontractors. We will submit detailed open-book cost estimates via Autodesk Build at Design Stage 2 (60%), Stage 3 (90%), and final GMP pricing or as appropriate to current RFP design progression. Each estimating iteration will include prepared estimate narratives, assumptions, and clarifications. This transparency within our estimating process will afford INDOT the ability to make data-driven assessments of the project's scope, schedule and budget at each pricing milestone.

Fair and Competitive Pricing During Open-Book Negotiations

WMJV commits to following the guidance provided in *Exhibit B Section 6 – Cost Estimating*. We will work with INDOT and the ICE in a collaborative environment to establish the processes and documentation needed to establish a fair market price. As the documents provide for an independent estimate from the ICE, we will coordinate with INDOT to establish instructions for both parties regarding scope, schedule, and risk assessment. This information will be critical to forming a basis of comparison between estimates.

SCHEDULE MANAGEMENT AND METHODS OF OPTIMIZATION

WMJV will organize a workshop with INDOT and key stakeholders after the Project Kickoff Meeting to discuss the controlling factors of both the preconstruction and construction phase schedules and identify a path forward to executing early work packages.

Integration of Design Schedule into Construction Schedule

The CMGC delivery method allows tasks to occur in parallel and overlap. The opportunity to construct the fiber and conduit early utilizing an early release design package will expedite the completion of the Project in alignment with the Project Goals. Our strategy is to develop buildable units by scope or phasing that center around the schedule. On this Project, we anticipate only one early design unit to allow for earlier procurement of long-lead items and fiber and conduit work to commence prior to final design and GMP agreement.

We will collaborate with INDOT, the Parsons' design team, and key stakeholders to vet the final buildable unit plan. **Project Scheduler Matt Martin** will create an initial baseline critical-path method (CPM) schedule that fully integrates both design and construction in alignment with our buildable unit sequence using Primavera P6 to simplify collaboration during schedule reviews and monthly meetings. Each buildable unit may have more than one design package, which will require careful integration of design milestones into the schedule.

As each package progresses through Stage 2, Stage 3, and GMP design progression, we will be identifying work activities, quantities, and activity durations. Beginning this process at Stage 2 (60%) design will allow Matt to build the framework for construction work early in the design process, allowing for efficient updating of the CPM at design milestones. Collaboration with the design team during schedule development will also limit risk when the work starts, as the durations and productions have already been thoroughly vetted by the design team.

Increased Flexibility with Early Works Packages

The CMGC process allows us to take advantage of Early Work Packages (EWP) during preconstruction to achieve greater accuracy in our preliminary pricing, an enhanced ability to mitigate procurement cost/schedule risk to the GMP, and provide a head start to keep the project's construction critical path intact. For the redundant fiber EWP, our team will advise on the level and pacing of detailed design required to appropriately estimate the work, commensurate with the level of risk that should be attributed to its execution.

Identifying Controlling Factors

WMJV has identified several components critical to expediting the preconstruction schedule. Each of the following controlling factors will be critical to the successful execution of our preliminary buildable unit sequence. We will collaborate with INDOT to agree on areas of focus to mitigate any related schedule delay risks:

- Schedule requirements for MEGA grant funding
- MOT in a highly congested area
- Utility/railroad coordination for conduit installation
- Permits, NEPA, and intergovernmental agreements
- Long-lead time items, such as the gantry structures and DMS signs

FIGURE 4 // WMJV EXPERIENCE MAP

Walsh and Meade's extensive firsthand experience working along the FlexRoad corridor provides a strong understanding of the key challenges and proposed solutions in **FIGURE 5**.

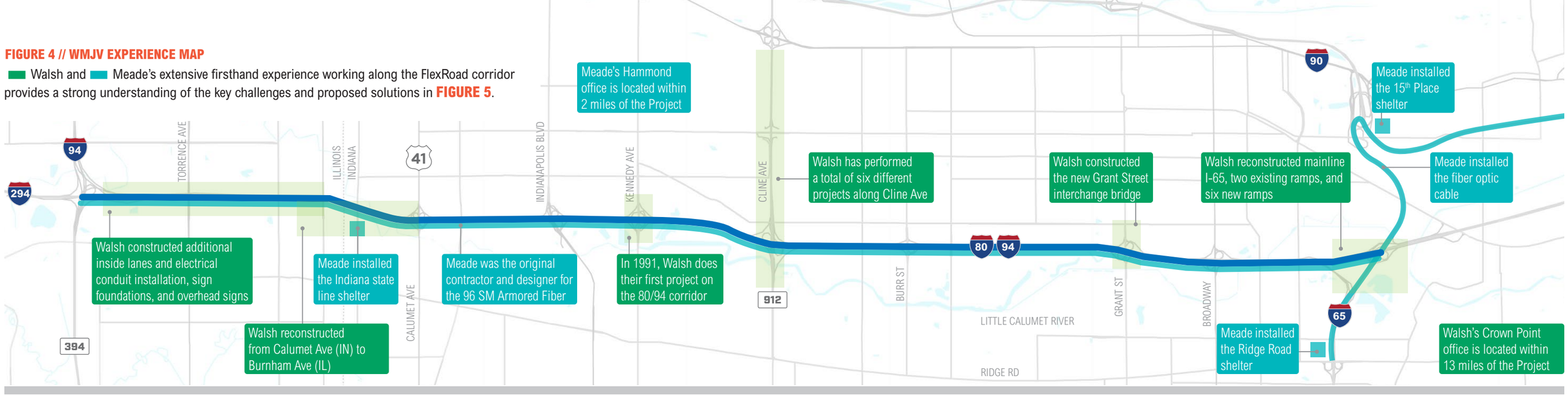


FIGURE 5 // PROJECT-SPECIFIC KEY CHALLENGES

KEY CHALLENGE	PROPOSED SOLUTION
Heavily-Congested Corridor	» Utilize automated workzone information systems and portable changeable message signs to inform motorists of upcoming slower speeds or congestion » Minimize length of active work zones when feasible to reduce congestion and increase safety to traveling public » Placement of queue trucks in advance of work zones and repositioning as needed to ensure motorists are aware of slowed or stopped traffic
Maintenance of Traffic (MOT)	» Optimize MOT plans to minimize phasing, and utilize traffic calming techniques » Utilize queue trucks, law enforcement officers, and automated workzone systems » Self-perform traffic control activities during the installation of the fiber optic cable to limit disruptions
Tight-Construction Workspace	» Evaluate the reduction of lane width from 12-foot to 11-foot to increase working area and safety » Utilize movable barrier wall to increase work area during non-peak travel times » Perform work behind barrier walls and maintain the 30-foot work zone to maximize safety
Emergency Traffic	» Establish accessible rally points for emergency services » Involve first responders during the preconstruction phase when developing emergency action plans » Maximize the use of on-call tow trucks for swift incident management response times
Traffic Impact	» Utilize night work and movable barrier wall to accommodate commuter traffic patterns » Coordinate closely with INDOT to adjust closure timeframes based on real-time traffic situations
Utility/Underground Conflicts	» Coordinate and communicate with Parsons and utility owners to design around potential utility conflicts, including hazardous material, gas pipelines, and existing ITS systems within the corridor » Perform potholing to avoid or mitigate utility or underground conflicts » Overlay as-built utility locations on project drawings for accurate plans to avoid conflicts while designing » Hold on-site utility coordination meetings prior to starting work in utility-sensitive work locations
Design/NEPA Process Completion	» Provide valuable contractor insight for INDOT's coordination with the community advisory council and stakeholders
Little Calumet River and Wetlands	» Coordinate early to prevent delays to schedule and limit disruptions to wetlands; WMJV to aid in proposed directional bore submittal » Contain workzone footprint while reconstructing the Broadway Interchange in Phase 9: Broadway/53 Stages and while constructing 1,500LF of proposed retaining wall through existing wetlands in Phase 9: I65 South Stages
Railroad Permits/ Coordination	» Early submission for permit to place conduit under track crossing to facilitate advanced fiber installation; WMJV to aid in proposed directional bore submittal
Concrete Pavement Repair (CPR)	» Precise removal operation during full-depth CPR to prevent damage; appropriately size equipment for large areas » Conduct thorough sweeps of lanes closed during work hours (via temporary barrier wall type IV that are to be re-opened during non-work hours) to remove any construction debris or impediments » Coordinate with QC Manager for optimal concrete mix design » Discuss alternate detail for the temporary traffic barrier, such as temporary road plates, for efficient traffic shifts
Gantry Installation	» Prepare detailed work plans for gantry installations using the 3D lift program for optimum sized crane » Prepare phase specific MOT short-term 20 minute rolling closures with detailed LEO/pilot vehicle locations and expected queue locations/lengths » Coordinate multiple gantry erections during the 20 minute rolling closure when feasible
MAINTENANCE OF EXISTING FACILITIES	
System Evaluation	» Perform initial evaluation to assess the condition of existing equipment installations and locations » Compile a log of required MOT to properly plan for required site maintenance » Develop preventative maintenance schedule in conjunction with INDOT
Spare Parts Availability	» Coordinate with INDOT to assess current inventory of installed devices and current levels of spare parts to determine if units will be needed to keep the system operational through the construction phases » Assess the inventory to determine how many (if any) of the current devices have been discontinued by the manufacturers, possibly purchasing end-of-life stock to assist with any failures though the process » Leverage our relationships with various vendors to assist in maintaining inventories
Maintain New Equipment as Integrated	» Coordinate training with vendors on new products and installations to assure that all technicians on the project are trained and certified for the equipment » Work with integrator to complete site tests, burn-in, and troubleshoot all new devices
System Cutover	» Cutover legacy devices as the new fiber optic system is installed and commissioned » Work with integrator to minimize downtime of the devices to maintain the integrity of the existing system

Project-Specific Elements

The WMJV Team reviewed the reference information documents, along with the PEL Report and its appendices, to inform our approach to the following project-specific elements.

SEQUENCING THE CONSTRUCTION WORK

During the preconstruction phase, **Construction Manager Joe Kislowski** will lead the Project team in evaluating the MOT design to optimize construction sequencing. WMJV will also work with INDOT and Parsons to identify any potential risks that may cause disruption to sequence, such as long lead time items, difficulty of work zone mobility and access or utility conflicts.

- **Pre-Phase 1:** The early works package to install the redundant fiber will be critical to lay the groundwork for the ATMS and ITS systems. We can self-perform MOT shoulder closures to minimize impacts to traffic.
- **Phase 1-Phase 9:** We will tailor first- and second-shift operations to maximize production while constructing new drainage, gantry foundations, concrete pavement repairs (from inside shoulder to outside shoulder), and installation of gantries over the roadway.
- **Phase 9 Broadway and I-65:** We will collaborate with INDOT and Parsons to select a preferred solution for the Broadway interchange design.
- **Phase 10:** We will move further east (IN MM5.5 to IN MM11.0) to construct drainage improvements, gantry foundations and structures, as well as concrete pavement repair to westbound lane one and median shoulder to tie in the corridor wide improvements.

Using our experience gained by self-performing several of the remaining critical work items needed for project completion, we will identify any potential work items that can be completed in parallel or as overlapped.

TRAFFIC CONTROL AND PHASING

Walsh and Meade have successfully worked with INDOT and IDOT on some of your most complex high-traffic count MOT projects. Our team's ability to adapt to ever-changing traffic behaviors will be a critical factor for success on the FlexRoad Project.

We understand an effective communication plan will be critical for this Project. Our plan will include communication strategies for keeping the public informed for items such as upcoming travel lane restrictions. We will also coordinate with first responders when developing the emergency action plans.

The WMJV Team can employ a similar strategy that was used on Walsh's Northwest Indiana I-65 Added Travel Lane INDOT Project. At the beginning of this project, we held a public information/MOT kick off meeting with local municipalities, public transportation services, first responders, INDOT, designers, and critical MOT subcontractors to discuss milestone dates, present project phasing, and establish an electronic communication plan. We also engaged a Public Information Consultant to provide real-time social media updates to travelers of current traffic patterns, travel times, and all other relevant information. As the project progressed, this meeting was very beneficial for stakeholder and public awareness of project details.

MOT Manager Mark Hedrick and our team will work with INDOT and Parsons to examine traffic control

EXPERTISE IN INTERSTATE CONSTRUCTION AND MANAGING TRAFFIC. Walsh has implemented innovative approaches to sequencing construction work and maintaining traffic that can be applied to FlexRoad, including movable barrier walls and optimized phasing.

INDOT SUPER 70. Walsh successfully implemented readily movable barrier systems on the Super 70 design-build project and similar projects in Illinois, Wisconsin, and several other states.

INDOT I-69 CONTRACT 5. By shifting the final alignment, Walsh was able to eliminate the need for a third phase during the White River Bridge construction. During design coordination meetings, the team revised the planned three-phase bridge construction to two phases, saving the project time and cost while also minimizing impacts to existing traffic.

devices that will enhance the operation of the work zone and reduce risks to high-volume areas of the corridor like the Torrence Avenue, Burr Street and the Broadway Interchanges. Such devices or strategies include:

- **Work vehicle entering warning systems** at active work zones to raise driver awareness (especially during operations in Phase 1 and Phase 8 where construction traffic will be entering and leaving the center median work zones)
- **Presence Lighting at the Phase** 1 IN MM 5.8 and IN MM 1.03 "to be constructed temporary crossover locations" will help to improve light levels, reduce motorist speeds and increase driver awareness as they enter the crossover and contra-flow lane
- **Smart arrow boards** to send real-time data to navigation system/smartphone for upcoming work zone
- **Movable barrier wall system** to create ample work zones for construction crews during work hours and then returned during non-work hours to maintain positive-traffic flow during the evening rush
- **Contrast pavement markings** to adapt lane restrictions. Our team has used this technique, which layers white and black markings, to enhance the visibility of lane boundaries during the low-light conditions of morning and evening commutes, as well as during adverse weather conditions

TSMO HARDWARE, SOFTWARE, AND EQUIPMENT INSTALLATION/INTEGRATION

Meade installed the existing fiber on the Borman Expressway and deployed the multi-path communications network that formed the initial ATMS network for INDOT along the Borman Expressway. This firsthand understanding will be beneficial throughout the FlexRoad Project to deliver a successful TSMO deployment.

TSMO Coordinator Nick Myers will facilitate communication and collaboration between INDOT, Parsons, and the WMJV Team. Starting on day one through completion, Nick will ensure a smooth transition of INDOT's stated goals from ITS design ideas to successfully constructed and functioning systems. Our team will work with INDOT and Parsons to identify potential technological improvements or innovative construction alternatives.

ISTHA I-90 SMART CORRIDOR. Meade reduced installation costs and improved accessibility for future maintenance by modifying the gantry and sign design for this project.

Our team has reviewed, and is comfortable with, the current INDOT Qualified Product list. There is a significant crossover between the prequalified products for all agencies involved in the FlexRoad project.

Evolving Technologies

Meade's ITS construction and maintenance projects for many state, municipal, and private customers provide a comprehensive list of ITS/ATMS manufacturers, vendors and products. We are actively involved in new emergent technologies and are uniquely positioned to be a valuable partner tin the following ways:

- Providing knowledge regarding product capabilities, limitations and reliability during the design phase
- Leveraging vendor and manufacturing relationships to ensure competitive pricing and timely delivery during procurement
- Utilizing vast ITS construction experience to ensure installation, startup and commissioning all meet manufacturer's specifications
- Remaining committed to providing quality product maintenance to ensure continuing system operations to assist INDOT in their goal of creating a safer and more efficient corridor for the motoring public

WHY SELECT THE WALSH-MEADE TEAM?

We are industry experts in both **HIGHWAY AND TSMO** construction

Key Personnel with over **25 YEARS OF I-80/94** specific experience

Collectively, we have delivered over **16 PROJECTS ON I-80/94**

We are trusted partners to both **INDOT AND IDOT** for over 25 years