

**TECHNICAL PROPOSAL
FOR THE I-69 MAJOR
MOVES EXPANSION
PROJECT**



DUE DATE: SEPTEMBER 21, 2015



**PROPOSER:
MILESTONE CONTRACTORS, L.P.**

**5950 S. BELMONT AVE.
INDIANAPOLIS, INDIANA 46217
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PRELIMINARY PERFORMANCE PLANS

APPENDICES

**KEY PERSONNEL RESUMES
TRAFFIC ANALYSIS OF CAMPUS PARKWAY
PAVEMENT DESIGN**



SUMMARY AND ORDER OF PROPOSAL CONTENTS

Exhibit E





SUMMARY & ORDER OF PROPOSAL CONTENTS

EXHIBIT E

Exhibit E

SUMMARY AND ORDER OF PROPOSAL CONTENTS

Technical Proposal – Volumes 1 and 2		
Technical Proposal Component	Form (if any)	ITP Section Cross-Reference
Volume 1		
A. Executive Summary		
Executive Summary (Exclude price information)	No forms are provided	Exhibit B, Section 3.1
B. Proposer Information, Certifications & Documents		
Proposal Letter	Form A	Exhibit B, Section 3.2.1
Authorization Documents	No forms are provided	Exhibit B, Section 3.2.1
Identification of Proposer and Equity Members	Form B-1	Exhibit B, Section 3.2.2
Information About Proposer Organization	Form B-2	Exhibit B, Section 3.2.2
Information About Major Participants, and Identified Contractors	Form B-3	Exhibit B, Section 3.2.2
Letter accepting joint and several liability, if applicable	No forms are provided	Exhibit B, Section 3.2.2
Responsible Proposer and Major Participant Questionnaire	Form C	Exhibit B, Section 3.2.3
Industrial Safety Record for Proposer and Major Participants	Form D (as applicable)	Exhibit B, Section 3.2.4
Personnel Work Assignment Form and Commitment of Availability	Form E	Exhibit B, Section 3.2.5
Letter(s) Regarding Pre-Proposal Submittals	No forms are provided	Exhibit B, Section 3.2.6
Non-Collusion Affidavit	Form F	Exhibit B, Section 3.2.7



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Technical Proposal – Volumes 1 and 2		
Technical Proposal Component	Form (if any)	ITP Section Cross-Reference
MWVBE Certification	Form G No forms are provided for the MWVBE Performance Plan or Job Training Plan	Exhibit B, Section 3.2.8
Surety/Financial Institution Information	No forms are provided	Exhibit B, Section 3.2.9
Conflict of Interest Disclosure	Form H	Exhibit B, Section 3.2.10
Insurance	No forms are provided	Exhibit B, Section 3.2.11
Confidential Contents Index	No forms are provided	Exhibit B, Section 3.2.12
C. Proposal Security (Proposal Bond)		
Proposal Security	Form J (if in the form of a bond); no forms provided for certified check	Exhibit B, Section 3.3
D. Proposal		
Stipend Agreement	Form O	Exhibit B, Section 3.4
Volume 2		
E. Scope Package	Form K	Exhibit B, Section 4.0
F. Preliminary Performance Plans		
Preliminary Project Management Plan	No forms are provided	Exhibit B, Section 5.1
Preliminary Project Baseline Schedule for Design and Construction	No forms are provided	Exhibit B, Section 5.1.2
Completion Deadlines	Form L	Exhibit B, Section 5.1.2
Preliminary Design-Build Plan	No forms are provided	Exhibit B, Section 5.2



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EXHIBIT E

Technical Proposal – Volumes 1 and 2		
Technical Proposal Component	Form (if any)	ITP Section Cross-Reference
G. Volume 1 Appendices		
Copies of Organizational Documents	No forms are provided	<u>Exhibit B, Section 3.2.2</u>
Proposer Teaming Agreement or Key Terms	No forms are provided	<u>Exhibit B, Section 3.2.2</u>
Executed Contracts or Term Sheets/Heads of Terms	No forms are provided	<u>Exhibit B, Section 3.2.2</u>
H. Volume 2 Appendices		
Key Personnel Resumes	No forms are provided	<u>Exhibit B, Section 3.2.5</u>
Technical/Design Drawings, Graphs and Data	No forms are provided	<u>Exhibit B, Section 5.2</u>



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Price Proposal – Volume 3

Proposers shall follow the order of the Price Proposal Checklist in their submissions. A referenced copy of this document shall be submitted with the Price Proposal.

Price Proposal Component	Form (if any)	ITP Section Cross-Reference
Price Form	<u>Form I</u>	<u>Exhibit C, Section 2.0</u>
Summary Cost Table Form	<u>Form M</u>	<u>Exhibit C, Section 2.0</u>
Additional Scope Pricing	<u>Form Q</u>	<u>Exhibit C, Section 3.0</u>
Scope Package	<u>Form K</u>	Exhibit C, Section 4.0

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H. Volume 2 Appendices (SEPARATE BINDERS)

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■ 5.2	Traffic Analysis of Campus Parkway.....	TAB 5.2
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■ 5.2	Preliminary Baseline Schedule.....	TAB 5.2
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E. SCOPE PACKAGE

Exhibit B, Section 4.0

Form K



FORM K

SCOPE PACKAGE

A. Proposer proposes to design and construct the following scope package in accordance with the PPA Documents (select one alternative only):

_____ Scope Package 1 (Project Sections A+B)

_____ Scope Package 2 (Project Sections A+B+C1 (through Station 943+00))

X Scope Package 3 (Project Sections A+B+C1 (through Station 943+00) + an increment of Project Section C2 (through Station 133+55) identified by the Proposer, as described below)

_____ Scope Package 4 (Project Sections A+B+C1+C2 (through Station 133+55))

B. **If Scope Package 3 has been selected above** (if Scope Package 3 has not been selected, do not fill out this Part B and only fill out Part A):

1. Identify how many full 500 foot increments of Project Section C(2) that Proposer will design and construct:

8 (Full 500 foot increments of Project Section C(2) that Proposer will design and construct) (may not exceed 25) ***[insert whole number (e.g., 1, 2, 3 up to a maximum of 25)]***

3. Identify the station number to which Proposer shall complete construction:

983+00 Line "A"

Proposer's Name: Milestone Contractors, L.P.

Signed: 

Printed Name: Brad McCall

Title: Director of Estimating

Date: September 21, 2015

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Preliminary Project Management Plan

**Preliminary Project Baseline Schedule
for Design and Construction**

Preliminary Design-Build Plan





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5.0 PRELIMINARY PERFORMANCE PLANS

Milestone Contractors, L.P. (Milestone) appreciates the opportunity to submit its proposal and qualifications for the I-69 Major Moves 2020 Expansion Project (Project). Milestone and our design engineer, United Consulting Engineers, Inc. (United), have spent the past ten months following the development of this project. Milestone has successfully completed similar Design-Build contracts for the Indiana Department of Transportation and has recently been awarded two Major Moves 2020 Design-Build contracts located on the I-65 corridor south of Indianapolis.

Milestone is a fully-integrated, heavy highway, and site development contractor that conducts business primarily in the state of Indiana. We are prequalified with the Indiana Department of Transportation and Departments of Transportation in the states of Kentucky, Ohio, and Illinois. Milestone with United has formed a team which is local to Indiana and works daily on delivering projects for INDOT and the state of Indiana.

We provide construction services for all phases of highway construction and site development including: earthwork, storm drainage, sanitary sewer, water systems, asphalt paving, concrete paving, miscellaneous concrete, bridge construction, and structural concrete.

United is an Indiana based full service civil engineering firm with the continuing goal to achieve excellence by providing every client with the highest quality of service. The combination of our quality service, superb employees, unquestionable integrity, and effective communication puts United in a position to achieve success. United currently has 102 employees with services focused on transportation, bridge, water, and wastewater design, topographic survey, right-of-way engineering, land acquisition, environmental, traffic data collection and forecasting, and construction inspection and engineering. Additionally, United has been selected by the Indiana Chamber of Commerce for the eighth year in a row as a “Best Places To Work in Indiana!”



Our proposal includes this symbol in areas where Milestone brings added value to IFA.

Milestone and United have begun the development of the documents which will ultimately comprise the final Project Management Plan and Design-Build Plan. The initial elements and the staff that will manage the delivery of the project are presented in the following sections.

Milestone is proposing Scope Package 3 through Sta. 983+00 Line “A”.





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5.1 PRELIMINARY PROJECT MANAGEMENT PLAN

Milestone presents the components of the Preliminary Project Management Plan over the next several sections to demonstrate our plan to achieve and satisfy the requirements of the PPA Documents. The Project Management Plan (PMP) in development by Milestone and United embraces the IFA’s goals for the project and will do the following:

- Places experienced staff in positions which work with the common goal of achieving the projects objectives.
- Understands the desired infrastructure and traffic operation improvements desired.
- Outlines the staff and organization which will work and communicate with IFA and all project stakeholders.
- Develops a Preliminary Baseline Schedule which demonstrates our understanding of the scope of the project and the activities necessary for a successful delivery.
- Uses Milestone and United’s history of meeting and exceeding the MWVBE goals and support of Indiana companies.
- Builds the project with the principle of “Safety By Choice – Not By Chance” which protects the construction workers, IFA’s representatives, and the traveling public.
- Meets the environmental commitments for the project.



5.1.1 PROJECT MANAGEMENT APPROACH

Milestone and United will fulfill the PPA requirements through the many practices currently in place for active project deliveries. These practices will be documented in a formal PMP. Our team understands Indiana and has the local expertise. Milestone and United are integrated in the project design delivery to produce a project that incorporates the most productive means and methods for delivering the project to produce the greatest value to IFA.



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5.1.1.a MANAGEMENT STRUCTURE AND PERSONNEL

Milestone and United have executed a Teaming Agreement for the project pursuit and a Subconsulting Contract for the delivery of design services so that final project development can begin immediately upon our notification of being the Preferred Proposer. The agreement is included in the Appendix of Volume 1.

Milestone has assembled and committed the team to deliver the I-69 Design-Build Interstate Expansion. The team is comprised of veteran construction staff including Ron Nagle of the hugely successful I-65/70 South Split and Randy Wilkinson of the recently completed I-65 North to I-70 West South Split Design-Build which was completed ahead of schedule. Joining Ron and Randy is Chad Scott. Chad is a veteran of multiple interstate reconstruction projects and has recently completed the I-70 project from Mt. Comfort Road to SR 9. Ron will serve as the Project Manager. Chad will serve as the Construction Manager and Superintendent. Randy will serve as the MOT Manager and Erosion Control Manager. All three will be Key Personnel for this project.

The design team from United is headed by Matt Taylor. Matt will be the Lead Engineer. Matt brings a wealth of knowledge from the delivery of multiple Major Moves projects. Chris Hammond will provide services as the Quality Control Manager. He serves a similar role as part of his responsibilities as the Transportation Manager at United Consulting. Ben Stenger will serve as the Utility Coordinator. Ben is a member of Matt Taylor's design team and is an INDOT Certified Utility Coordinator.

Our Key Personnel have been approved by IFA. Their detailed resumes are included in the Appendix.



RON NAGLE



CHAD SCOTT



MATT TAYLOR



RANDY WILKINSON



CHRIS HAMMOND



BEN STENGER

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5.1.1.a.i ORGANIZATION CHART

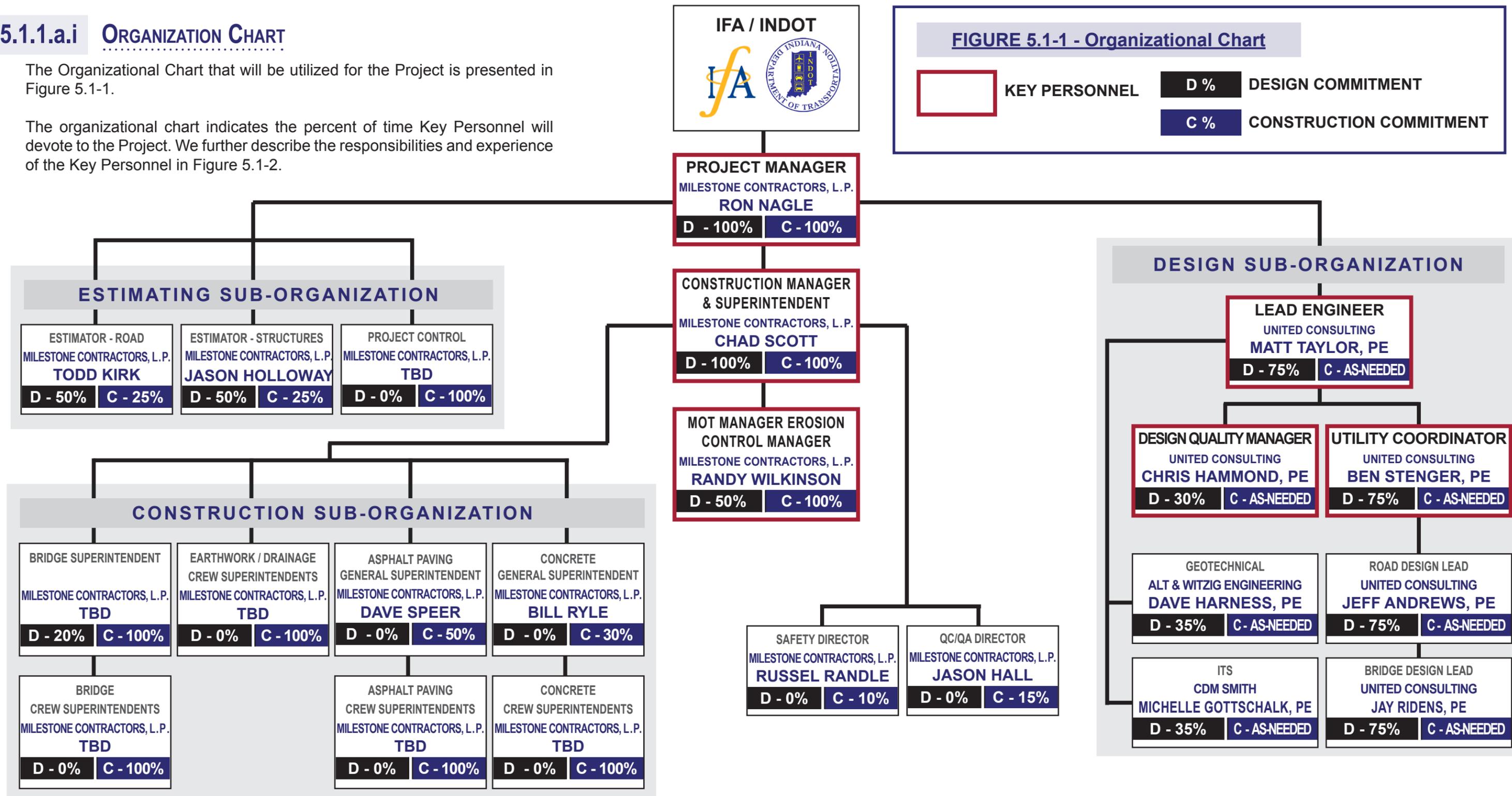
The Organizational Chart that will be utilized for the Project is presented in Figure 5.1-1.

The organizational chart indicates the percent of time Key Personnel will devote to the Project. We further describe the responsibilities and experience of the Key Personnel in Figure 5.1-2.

FIGURE 5.1-1 - Organizational Chart

KEY PERSONNEL

D % DESIGN COMMITMENT
C % CONSTRUCTION COMMITMENT



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5.1.1.a.ii KEY PERSONNEL

Milestone and United have assigned experienced veterans to fulfill the responsibilities of the Key Personnel.

Resumes for each individual may be found in the Appendix. All Key Personnel have previously been approved by the IFA.

 These veteran key personnel bring added value to IFA by bringing experience and a proven track record to the project.

The Organizational Chart (Figure 5.1-1) shows how each person fits into the overall management structure and identifies the chain of command that represents lines of communications and accountability. Figure 5.1-2, Key Personnel Chart, lists a description of the responsibilities, relevant experience and time commitment required for all Key Personnel.

FIGURE 5.1-2 - Key Personnel Chart

NAME, ROLE, TIME COMMITMENT	KEY RESPONSIBILITIES	RELEVANT EXPERIENCE
Ron Nagle Project Manager 100% Time Commitment During Design and Construction	Will act as the single point of contact between Milestone and IFA/INDOT. Responsible for the overall management of the project. Is authorized to act on contractual matters and resolve issues between the contractor and IFA. Prepare agendas and conduct weekly progress meetings. Agendas shall include a method of tracking pending issues and of assigning responsibility of "Next Action".	Project Manager for I-65 / I-70 South Split Reconstruction (R-35730) Project Manager for I-74 Asphalt Re-surface (RS-31502-A)
Chad Scott Construction Manager Construction Superintendent 100% Time Commitment During Design and Construction	Will be responsible for managing all the project field operations and ensure necessary inspections are completed. Will also operate as the construction superintendent and will complete tasks given to both the CS and CM in a timely and orderly fashion. Develop and update the project schedule.	Project Manager for I-70 Reconstruction from Mt. Comfort Rd to SR 9 Project Manager for Northwestern Ave and Yeager Rd OSHA Certified Certified ATSSA Traffic Control Supervisor
Matt Taylor, PE, MBA Lead Engineer 75% Time Commitment during design and as needed during construction.	Will oversee all design activities to deliver the project design in accordance with the PPA and the Technical Provisions. Will resolve design and construction issues to maintain the project schedule.	Project Manager for US 31 South Bend Project Manager for I-70 and Mt. Comfort Rd Interchange Mod. Project Manager for 82nd St from Hague Rd to Fall Creek Rd.
Randy Wilkinson MOT Manager Erosion and Sediment Manager 50% Time commitment during design 100% Time commitment during construction	Will be responsible for the installation, inspection, and maintenance of all required erosion and sediment control measures and all traffic control devices in accordance with the Released for Construction documents.	Project Manager for I-65 N to I-70 W South Split Design-Build (B-37019) Erosion & Sediment Control Manager for CSX Railroad over I-65 (IB-31413-A) OSHA Certified Various IDEM Continuing Education / INDOT Construction Storm Water Management Certification (Pending 10/14/15 Training) Certified ATSSA Traffic Control Supervisor
Chris Hammond, PE Design Quality Manager 30% Time Commitment during design and as needed during construction.	Will assure and certify the quality control is completed in accordance with the design quality control plan. Quality assurance and certifications will be documented to identify any non-compliance with the design quality control plan and will implement a plan to prevent future occurrences.	Deputy Project Manager for I-69 Sections 2 & 3 United Transportation Department Quality Control Plan author. Project Manager and Quality Control Manager for new interchange at I-74 and Ronald Reagan Parkway.
Ben Stenger, PE Utility Coordinator 75% Time Commitment during design and as needed during construction.	Will complete the utility coordination process in accordance with the Indiana Design Manual Chapter 104, 105 IAC 13, and the INDOT Utility Accommodation Policy.	INDOT Certified Utility Coordinator Utility Coordinator for Covert Road Diet project

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5.1.1.a.iii QUALIFICATIONS AND EXPERIENCE OF TASK MANAGERS

Milestone and United will staff the project with currently employed personnel within our organizations. Task Managers will report to our Key Personnel and possess the qualifications and experience required for the Project. The qualifications and experience of the Task Managers is shown in Figure 5.1-3.

FIGURE 5.1-3 - Qualification Table

POSITION	QUALIFICATIONS	EXPERIENCE	NAME
Bridge Superintendent	Construction Management Degree or technical training and/or related experience	>8 years construction management or craft supervision	TBD
Asphalt General Superintendent	Construction Management Degree or equivalent experience in similar type facility construction	>8 years construction management or craft supervision	Dave Speer
Concrete General Superintendent	Construction Management Degree or equivalent experience in similar type facility construction	>8 years construction management or craft supervision	Billy Ryle
Crew Superintendents	Adequate experience and training	>5 years in construction	TBD
Safety Director	Four year degree in Safety Management	>3 to 5 years' experience	Russel Randel
QC/QA Manager	Construction Management Degree or technical training and/or related experience	>5 years Quality Control Technician	Jason Hall
Project Control	Associates Degree in Accounting or equivalent	>3 years in position	TBD
Senior Estimator	Civil Engineering, Construction Management Degree	>5 years in construction	Jason Holloway Todd Kirk
Lead Engineer	Registered Professional Engineer in Indiana	> 10 years in engineering	Matt Taylor, PE
Design Task Lead	Registered Professional Engineer in Indiana	> 8 years in engineering	Jeff Andrews, PE Andrew Wolka, PE Jay Ridens, PE Whitney Neukam, PE Dave Harness, PE *
Design Quality Manager	Registered Professional Engineer in Indiana	> 10 years in engineering	Chris Hammond, PE
Utility Coordinator	INDOT Certified Utility Coordinator	> 5 years in engineering	Ben Stenger, PE

* Alt & Witzig Engineering



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5.1.1.a.iv CURRENT AND PROJECTED WORKLOAD AND BACKLOG

Milestone and United have a very good history of successfully completing design build contracts very similar to this project. Both companies have a large competent labor pool available for staffing the Project. Our current and projected workload and backlog is presented in Figure 5.1-4.

FIGURE 5.1-4 - Current and Project Workload and Backlog

	MILESTONE	UNITED
Current Workload	[REDACTED]	[REDACTED]
Backlog 2016	[REDACTED]	[REDACTED]
Projected Workload 2016	[REDACTED]	[REDACTED]
Backlog 2017	[REDACTED]	[REDACTED]
Project Workload 2017	[REDACTED]	[REDACTED]

Milestone owns a large equipment fleet enabling us to plan and have available the proper equipment needs. Another strong attribute is the relationship we have with the local equipment and material suppliers. These strong relationships coupled with local subcontractors will provide us the resources to fulfill the demands for a safe, on time delivery of the Project.

United has six design teams in our transportation departments and 45 technical staff members. These design teams and staff members are available to assist on the delivery of this project on schedule. Currently, we anticipate that one of our road and bridge design teams will be necessary to deliver the design of the project. United will have four additional design teams to support any unanticipated changes in schedule or challenges.

We have developed our preliminary baseline schedule which defines the equipment, resource, and staff needs estimated for this project's delivery. Our large availability of resources along with the baseline schedule demonstrates and verifies that Milestone and United have the resources necessary.



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FIGURE 5.1-5 - Summary of Resources

MILESTONE CONTRACTORS, L.P.	<ul style="list-style-type: none"> • 5 Cranes • 29 Backhoes • 16 Distributors • 39 Dozers, 18 with GPS 	<ul style="list-style-type: none"> • 54 Excavators • 20 Graders, 9 with GPS • 33 Loaders • 8 Shuttle Buggies 	<ul style="list-style-type: none"> • 32 Pavers (all sizes) • 74 Asphalt Rollers • 1000+ misc. pieces of equipment
	<ul style="list-style-type: none"> ■ Milestone has strong partnerships with MacAllister Machinery Co, Cat Rental and Brandeis Machinery to rent any type of equipment needed. We have national reach potential to secure any equipment needed. ■ Milestone owns a trucking company with access to 35+ tri and quad dump trucks ■ Milestone has 14 Operating Asphalt plants with five being in the Indianapolis market. Have access to two additional portable plants. ■ Milestone has three Portable Concrete Plants ■ Milestone has 200 +/- company employees and has an average between 800 - 1000 union employees. We have access to all unions in Indiana and can get field employees as needed. ■ Milestone has five staffed offices with the main office in Indianapolis, two garage facilities for equipment repair, three storage yards, and numerous temporary project field offices. ■ Milestone has the financial stability to secure any additional assets as needed. 		

5.1.1.b INTERNAL ORGANIZATION SYSTEMS

Clear communications and a timely decision making process will guide the development of the project through construction and build a positive perception of the state of Indiana's improvements to the interstate system. To ensure success of the project, Milestone will implement the following Internal Organization Systems:

- A proven decision-making process
- Clear lines of communication and documentation
- Proactive communications with INDOT and other stakeholders
- A designated Public Information Officer
- A Preliminary Public Involvement Plan (PIP)

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5.1.1.b.ii METHODS AND LINES OF COMMUNICATION AND DOCUMENTATION

There can be no substitute for open and honest verbal communication, whether it is between Milestone associates, subcontractors and suppliers, our estimating or design team, or between Milestone and any representative of IFA/INDOT. It is extremely important, however, to document those conversations in writing when they could ultimately impact the scope of work, the project schedule, or any key aspect of the performance of the work under the PPA. Verbal conversations that would be considered by Industry Standards as important for the Project Construction Record shall also be documented in writing.

Milestone's preferred method of communication is by E-mail. A dated, time-stamped record of communication between two parties is critical to maintaining clarity and timeliness of any communication. E-mail is also very useful to confirm and document a verbal conversation.

Milestone will provide a letter on company letterhead for matters such as Notice of Changed Condition, contractual disputes, or other matters that are being pursued by Milestone's General Superintendents or Vice President of Operations. These letters shall be delivered as an attachment to an E-mail in order to verify the date and time of delivery. An original copy will also be sent by regular mail. Milestone will include a Letter of Transmittal with all submittals to clearly identify the contents of the submittal.

The Organizational Chart on Figure 5.1-1, shows the flow of information vertically from task managers to the Project Manager and laterally between project sub-organizations. Key Personnel are responsible for establishing effective lines of communication within their specific task group.

Regular meetings as shown on Figure 5.1-7 Meetings, shall be conducted to facilitate and document communication between all personnel involved in the project.

FIGURE 5.1-7 - Meetings

MEETING	ATTENDEES	PURPOSE	DOCUMENTATION METHOD	FREQUENCY
Design Coordination	Estimating Manager, Senior Estimators, Project Manager, Lead Engineer, Design Quality Manager, Design Unit Managers.	Review progress of design process, and identify and resolve potential conflicts between different disciplines.	Agenda, Minutes	Weekly
Daily Huddle	Task Manager and workforce	Safety: Identify potential safety hazards and methods to mitigate those hazards or exposure to those hazards, discuss near misses, verify compliance with Milestone safety policies and procedures, identify PPE required to protect workers	Attendee signatures on Daily Huddle Form	Daily
Daily Huddle	Task Manager and workforce	Production: Discuss work planned for today and production goals	Attendee signatures on Daily Huddle Form	Daily
Field Operations	CM/CS, Bridge Supt., Earthwork/Drainage Supt., Asphalt Paving General Supt., Concrete General Supt., Subcontractor Representatives	Coordination and scheduling of all activities, review resources (equipment, personnel, materials, subs) required, review safety requirements	Diary section of Daily Report	Daily
Progress Meeting	PM, CM/CS, General Supts., MOT Manager/Erosion and Sediment Control Manager, Estimating Manager, Lead Engineer, IFA/INDOT	Review safety statistics involving the motoring public or construction personnel, review safety concerns and initiate corrective measures if applicable, review Crash Log, review updated schedule, review recently completed work, review three-week look ahead schedule, review status of all reports due (S&B, TESC, Temporary Worksite Speed Limit Assemblies reports, wrecker logs if applicable, weekly reports), review testing and QC/QA reports, review status of estimates and change orders, review claims or potential claims	Agenda, Minutes	Weekly
In-House Progress Meeting	PM, CM/CS, General Supts., MOT Manager/Erosion and Sediment Control Manager, Project Control	Safety, Schedule, Performance	Agenda, Minutes	Monthly

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5.1.1.b.iii INTERFACE WITH IFA AND DEPARTMENT

Milestone will interface with the IFA, INDOT, their consultants or any other stakeholder such as federal, state and local agencies, police and fire departments, motorists, private property owners or any other entity or person impacted by this project. Milestone will coordinate all communications through IFA and its representative before involving other stakeholders.

We will maintain open, honest communication with the utmost respect to all. We are committed to maintain transparency and clarity of communications with all stakeholders throughout the entire project. Periodic meetings will be conducted with stakeholders and our management team will be open to any meeting or communication requested by IFA/INDOT or other stakeholders. Our main goal is to provide proactive, harmonious communications that will benefit both parties. Figure 5.1-8, Interface with Stakeholders identifies Milestone and United personnel who will interface with IFA and INDOT, as well as other entities or persons who are stakeholders in the project.

Our overall philosophy is very similar to the past project sponsored Partnering Meeting. We see it important that decisions be focused on finding Win-Win solution for the project partners.

FIGURE 5.1-8 - Interface with Stakeholders

Stakeholder	Milestone and United Key Personnel	Meetings/Communication Methods	Frequency
IFA	Project Manager	Milestone and United will meet with IFA and provide written reports of progress and performance to IFA.	Monthly during construction
IFA (Quality issues)	Project Manager, General Superintendent, Quality Manager	Meet with IFA to discuss specific questions or concerns. Milestone and United will provide all test reports as required.	As requested
INDOT and Consultants for D/B issues	Estimating team, Project Manager, CM/CS, Lead Engineer	The Department and Consultants shall have the option of being included in relevant design reviews and workshops to ensure a closely coordinated review process	As requested
INDOT	Project Manager	3-Day Look Ahead Schedule	Daily during construction
Emergency Responders	Project Manager, MOT Manager	Incident Management Meetings, provide contact information for key personnel, e-mail updates prior to changing traffic configuration and if access points change due to construction	Monthly during construction
Utilities	Project Manager, Lead Engineer, Utility Coordinator	Design meetings, Pre-con, e-mail correspondence. CM/CS verify existing utility locations by water jet/vac excavation and compare to the plans to verify clearance within 21 days after NTP.	As needed during design or if changed condition is discovered
Residents, businesses and adjacent property owners	Public Information Coordinator	Pre-construction (or Town Hall) meeting open to the public, e-mail, and Social Media	Pre-construction and as new information or updates are available
Environmental Agencies	Erosion and Sediment Control Manager	Consultation during design, and onsite as requested	As needed or as requested



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5.1.1.b.iii INTERFACE WITH IFA AND DEPARTMENT CONTINUED

IFA and its representatives are anticipated to participate in the meetings identified in Figure 5.1-8. The purpose of these meetings is to keep everyone informed of the developments on the project and the next objectives to achieve.

For efficient delivery of the project, Milestone will provide facilities as required in the Technical Provisions for IFA and INDOT. Milestone would welcome co-location as it allows for daily face-to-face interaction between design, construction and IFA and INDOT personnel and improves communication, cooperation and expedited decision-making.

5.1.1.b.iv PUBLIC INFORMATION STAFF AND EXPERIENCE

Ron Nagle will be our Public Information Coordinator for this project. Ron has worked on multiple large transportation projects that involved public involvement and led most of the efforts. He will be our liaison with the representatives of the IFA, INDOT, and local stakeholders. Ron will organize and facilitate public meetings and will maintain a high level of communication and outreach to various stakeholders throughout this project. Our Lead Engineer, Matt Taylor will assist Ron on the public information meetings by providing the most up to date project information. Matt is familiar with conducting Public Information Meetings through the development of his past projects and is comfortable speaking in front of crowds.



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5.1.1.b.v PRELIMINARY PUBLIC INVOLVEMENT PLAN (PIP)

The Preliminary Public Involvement Plan will outline our process and procedures for communication of Project information between Milestone, IFA, INDOT, relevant stakeholders, and emergency responders. Milestone is committed to being proactive in sharing project information to local stakeholders and public at-large. Timely and accurate communication will ensure the public is informed and will enhance motorists' safety. The steps in providing public information are as follows:

1

Pre-Construction Public Information Meeting: Milestone will set up and facilitate a pre-construction public information meeting. The meeting information will be published in local newspapers one week prior to the meeting date. The meeting will be held at a convenient location to the project. Contact information from all attendees will be gathered and they will be sent periodic construction updates. We will invite the INDOT Public Information Officer to co-chair this meeting with Milestone.

2

Develop Incident Management Plan: Milestone will develop an Incident Management Plan that will engage all local emergency responders and follow commitments made in the Traffic Management Plan (TMP). We will provide them with a layout of our traffic control plan that will identify obstacles for access during each phase of construction. We will notify emergency responders several days in advance of any traffic pattern changes. Throughout the duration of this project, there will be continuous and open dialogue between Milestone and all local responders to identify better ways to enhance safety to motorists.

3

Establish Project Website: Milestone will establish a project website that will outline the project's scope and timelines. The project website will be user friendly and will be updated periodically with relevant project information, such as, timelines, lane closures, or any significant change in traffic patterns.

5.1.1.b.vi INFORMATION STORAGE PLAN

The development of the project will include maintaining access of the necessary information to all project partners including the owner and their team. In order to achieve this, Milestone will maintain all documents electronically in the document management system, Citrix ShareFile. Our team intends for the majority of electronic files to be in an Adobe and Microsoft Word and Excel file formats. Additionally, the CAD files available in both AutoCAD Civil 3D and MicroStation will be stored in Citrix. ShareFile allows for individuals to be given access and permissions for specific files and folders. The software will accelerate the access and the exchange of needed information, seamlessly.



F. PRELIMINARY PERFORMANCE PLANS

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5.1.2 PRELIMINARY PROJECT BASELINE SCHEDULE

Milestone's approach in preparing the preliminary project baseline schedule is to minimize disruptions to the users, local businesses, improve traffic operations, and to ensure the safety of construction personnel, IFA's representatives, and the traveling public. In order to construct the project in the most effective and timely manner possible, our goal is to hit the ground running in the spring of 2016. Milestone is committed to achieving substantial completion on or before November 30, 2017. Integral to the timely completion of the project, is a well-coordinated design approval process, and utility management and relocation plan. Our preliminary Project Management Plan will engage our Key Personnel and Task Managers during the pre-construction phase to expedite early design approvals for the maintenance of traffic plan (MOT), erosion control plans, quality control plan, utility relocation plans, and the required environmental permit submittals. Work will begin on these items upon receipt of the Notice to Proceed.

The construction activities and durations for the preliminary baseline schedule were developed from estimated quantities and applying reasonable production rates to determine the initial durations. Over the years, Milestone has developed long-term relationships with local subcontractors, vendors, and suppliers for all critical and noncritical items needed for this project. We view these relationships as a necessary and valuable resource. During the course of schedule preparation, considerable input from these resources has been obtained and incorporated into the scheduling logic and relationships. Extensive analysis has been performed on the project schedule and additional detailed planning has been performed on the major critical activities, such as, maintenance of traffic, phasing for the Campus Parkway/Southeastern Parkway interchange, and adding an auxiliary lane between 106th Street and 116th Street. Due to this effort, Milestone is confident that our preliminary baseline schedule is realistic and we are certain that our milestone commitments are achievable.

Sequencing

I-69 Mainline and Shoulder Construction: Our approach to developing the construction sequencing was based on minimizing impacts to the motorists and local businesses while creating the safest work environment possible. We will perform all the I-69 mainline & shoulder improvements during nighttime lane closures. This portion of the work will be completed prior to construction of the northbound and southbound added travel lanes. The most important concept developed within our maintenance of traffic plan is the completion the work without the use of temporary crossovers.

Several significant benefits to this approach are as follows:

- I-69 mainline asphalt overlay, concrete patching, and surface milling will be done during nighttime paving operations with temporary lane closures. This will minimize the impact to motorists during the day and will reduce traffic congestion.



- No crossovers are proposed which means the traffic flow pattern for I-69 northbound and southbound will remain in the existing configuration throughout construction. This will minimize the impact to motorists and improve safety.

F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.1

5.1.2 PRELIMINARY PROJECT BASELINE SCHEDULE CONTINUED

FIGURE 5.1-9 - Key Milestone Schedule Dates

I-69 Mainline and Shoulder Construction		Campus Parkway/Southeastern Parkway Interchange and Ramps	
I-69 Mainline	Milestone Dates	Campus Parkway/Southeastern Parkway	Milestone Dates
Anticipated NTP:	January 12, 2016	Anticipated NTP:	January 12, 2016
Substantial Completion:	November 30, 2017	Anticipated Start:	July 5, 2016
Partial Acceptance:	June 30, 2018	Anticipated Completion:	June 28, 2017
Final Acceptance:	October 15, 2018		

Campus Parkway/Southeastern Parkway Interchange and Ramps: Milestone understands that the phasing complexity of the Campus Parkway/Southeastern Parkway Interchange and ramp construction is the most challenging portion of this project and is committed to minimizing the impacts to the users and local businesses during construction and special events. This work will be ongoing concurrently with the I-69 mainline work.

Our preliminary schedule anticipates construction beginning July 5, 2016 and being completed in less than 360 days (or as required by IFA).

Phasing

I-69 Mainline and shoulder construction: Milestone has carefully analyzed the construction elements and developed four major phases of construction, which are detailed in the following sections.

- **Phase 1:** In phase 1, there will be nighttime lane restrictions. The critical work of this phase includes asphalt and concrete patching on I-69 northbound and southbound during nighttime lane closures.
- **Phase 2:** In phase 2, there will be nighttime lane restrictions. The critical work of this phase includes the milling, crack sealing, and intermediate overlay of I-69 northbound and southbound.
 - In phase 2A, traffic will be maintained on the inside travel lane during milling and paving of the outside travel lane and outside shoulder.
 - In phase 2B, traffic will be maintained on the previously paved outside travel lane and shoulder while milling and paving of the inside travel lane.
- **Phase 3:** In phase 3, temporary barrier wall will be placed along the edge of the inside travel lane. Two lanes of traffic will be maintained on the outside travel lane and shoulder. The critical work for this phase includes the construction of the I-69 northbound and southbound median travel lanes.



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5.1.2 PRELIMINARY PROJECT BASELINE SCHEDULE CONTINUED

- **Phase 4:** In phase 4, there will be nighttime lane restrictions. The critical work of this phase includes installation of the retrofit underdrains and mainline and shoulder surface paving.
 - In phase 4A, traffic will be maintained on the newly constructed travel lane and existing inside travel lane while underdrain installation and outside travel lane and shoulder surface paving is being completed.
 - In phase 4B, traffic will be maintained on the outside travel lane and shoulder while the asphalt surface paving is being completed on the newly constructed travel lane and existing inside lane.
 - In phase 4C, permanent pavement markings will be placed and traffic will be shifted into its final configuration.

Campus Parkway/Southeastern Parkway Interchange and Ramps: Milestone understands the importance of the function of the interchange construction in relations to the commuter traffic and business owners.

We anticipate the following four phases of maintenance of traffic:

- **Phase 1:** In phase 1 for Campus Parkway construction, three lanes of westbound and one eastbound lane of traffic will be maintained across the bridge. The critical work in this phase will be the bridge widening. Temporary pavement at several locations will be constructed and ready to shift traffic onto for phase 2 and 3 work.
- **Phase 2:** In phase 2, traffic will remain in the same configuration as phase 1. Construction will begin on the Campus Parkway roadway eastbound and various ramps.
- **Phase 3:** In phase 3, traffic will be shifted onto the newly construction roadway portion and will be maintained with temporary traffic signals. Construction will begin on Campus Parkway westbound section and continue on the various ramps.
- **Phase 4:** In phase 4, traffic will be maintained on the newly constructed portions of Campus Parkway. The remaining elements of work include completing the roadway and tie-ins to the ramps. All traffic will be shifted to the completed portions of the roadway in its final configuration.

A detailed copy of the preliminary baseline project schedule is provided in the Appendix.



F. PRELIMINARY PERFORMANCE PLANS

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5.1.3 PRELIMINARY MWVBE PERFORMANCE PLAN

Milestone will ensure that MBE's, WBE's, and VBE's will have an equitable opportunity to participate in the performance of design, supply, and construction contracts for the project.

Milestone has developed a preliminary MWVBE Performance Plan and will comply with the MWVBE Performance Requirements which incorporates the IFA-approved MWVBE Performance Plan, as well as all other requirements and regulations associated with the pertinent state programs including 25 IAC 5 and 25 IAC 9.

5.1.3.a ACHIEVING THE MWVBE PERFORMANCE GOALS

Milestone is firmly committed to exceeding the MWVBE goals established for the Project (7% Minority Business Enterprises, 5% Women's Business Enterprises and 3% Veteran's Business Enterprises). This will be accomplished through a variety of methods outlined below, as well as through the established relationships between Milestone and the MWVBE companies in the local area.

Milestone has been involved in many signature projects in which INDOT or other local governmental agencies have established overall MWVBE or DBE participation goals. Our success in exceeding goals on past projects illustrates our commitment to the design and implementation of the MWVBE program and the importance of exceeding project goals.

FIGURE 5.1-11 - Potential MWVBE Participation

	SCOPE PACKAGE	POTENTIAL MBE'S	POTENTIAL MBE %	
MBE'S	INSTALL REBAR/STR STEEL/METAL DECKING	HARMON STEEL JAVIER STEEL CORP J&B STEEL	1.60%	*TOTAL MBE's = 7.10%
	FURNISH REINFORCING STEEL	CIRCLE CITY REBAR, INC.	1.20%	
	BRIDGE PAINTING/NOISE WALL POST PAINTING	N.I.SPANOS	0.20%	
	TRUCKING	OATTS TRUCKING	4.10%	
	SCOPE PACKAGE	POTENTIAL WBE'S	POTENTIAL WBE %	
WBE'S	SIGNS/SIGNALS/LIGHTING/ITS	THE HOOSIER COMPANY TC ELECTRIC	1.54%	*TOTAL WBE's = 5.54%
	GUARDRAIL	C-TECH CORPORATION	1.35%	
	CONSTRUCTION SIGNS/PAVEMENT MARKING	INDIANA SIGN AND BARRICADE	0.80%	
	TRUCKING	CMG TRUCKING NUBIAN TRANSPORT	0.40%	
	UNDERDRAINS	3D COMPANY	1.25%	
	MILLING	CE HUGHES	0.20%	
	SCOPE PACKAGE	POTENTIAL VBE'S	POTENTIAL VBE %	
VBE'S	FURNISH MSE WALL, SOUND WALL	TIGER SOLUTIONS	2.50%	*TOTAL VBE'S = 3.10%
	TRUCKING	EZ TRANSPORT	0.60%	

* ANTICIPATED



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5.1.3.a ACHIEVING THE MWVBE PERFORMANCE GOALS CONTINUED

Milestone's approach to achieving the MWVBE goals for this project is outlined below:

1. Outreach

Conduct MWVBE Outreach to make the project and bidding opportunities known to all potential MWVBE firms. Outreach will be executed by: publications in local newspapers, contacting minority and small business trade associations, social media through Facebook or Twitter, phone solicitations, and email notifications.

2. Goal Participation Tracking

A comprehensive MWVBE Potential Participation Matrix has been developed to track and predict potential MWVBE participation during the project. Figure 5.1-11 outlines a potential scenario using MWVBE firms on this project. In addition to monitoring participation goals both pre-bid and throughout project construction, a modified rendition of the matrix will also be used to assist in documenting good faith efforts.

3. Optimizing Participation by Selection

During the bidding and procurement process, Milestone will evaluate all bid packages to determine the potential for inclusion of MWVBE participation and award contracts to MWVBE firms at every opportunity. Milestone will work with MWVBE firms to package scopes to tailor fit to their business unit on a case-by-case basis; this will aid in providing maximum opportunities for MWVBE firms.

4. Required MWVBE Participation

Milestone will specifically include in contracts a provision to carry through the MWVBE Performance Requirements. This provision will be included in every applicable subcontract that Milestone is party to. Second tier contracts will also be required to incorporate the same provision.

5. Monitoring Progress

Portions of the Preliminary MWVBE Performance Plan have already been implemented in the pursuit of the project; Monitoring of the participation goals will continue to be followed by all construction management staff and subcontractors/consultants working on the project. As the design and construction progresses, Milestone and its subcontractors will continually evaluate the work available and look for MWVBE opportunities.

6. Program Compliance/Good Faith efforts

Milestone will comply with all requirements of Section 7.1 of the PPA in regards to the MWVBE Program. Milestone pledges to operate the MWVBE program in full compliance with the applicable state laws and fully document MWVBE participation and contractor good faith efforts.



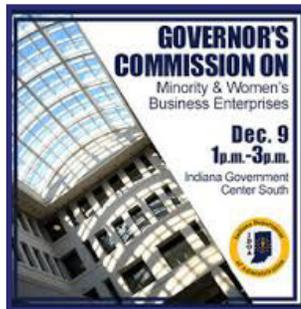
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5.1.3.b ENCOURAGING MWVBE FIRM PARTICIPATION

Milestone has compiled a comprehensive list of MWVBE firms and will launch an aggressive initial outreach to MWVBE firms in the pursuit of this project. Milestones previous successful project MWVBE partners, INDOT’s Certified Business Search, and the City of Indianapolis list of MWVBE firms have provided the foundation for developing the list. These tools will not be all-inclusive for outreach as we will engage many MWVBE firms which we have established strong working relationships with. Information and proposals received from identified MWVBE firms in the pre-award phase of the project will be perpetuated throughout the buyout process as contracts are being evaluated and awarded.

Milestone will seek and encourage additional participation during various workshops and events that are regularly attended throughout the year. Promoting and fostering strong relationships with MWVBE firms is not a new concept at Milestone. Milestone has maintained a presence at various workshops and events in the local area for several years.



We will continue to encourage MWVBE firms to participate in the design and construction of this project as well as other public and private projects that we pursue.

5.1.3.c MWVBE OUTREACH AND ASSISTANCE APPROACH

Milestone has valuable business relationships with many local firms in the construction industry who may be eligible for MWVBE certification, but are not currently certified. In the interest of adding value to Indiana’s economy, Milestone often encourages potential firms that may be eligible to apply for certification to become MWVBE certified.

We will afford each firm a meeting to explain the MWVBE program and its processes to them. We will also offer to align each firm with an application coordinator with the IDOA. In addition, Milestone will monitor dates for monthly certification clinics offered as Webinars and provide this information to potential MWVBE firms. Finally, Milestone will schedule a follow up meeting with the potential firm to answer any additional questions, as needed.

5.1.3.d MENTORING, TRAINING, AND ASSISTANCE OF MWVBE FIRMS

Through a collaborative approach, Milestone will challenge and broaden technical, management and business capabilities of participating MWVBE firms so that they can succeed on this project and on future projects. This will be accomplished through mentor/protégé relationships, training, and technical assistance.



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5.1.3.d MENTORING, TRAINING, AND ASSISTANCE OF MWVBE FIRMS CONTINUED



Mentor/Protégé: The Mentor/Protégé relationship will help an established MWVBE firm to expand and broaden various aspects of their business unit which will help their small business to grow to the next level to potentially become a prime contractor. Formalized mentoring will be accomplished by:

- Leadership and/or classroom training will be offered by a mentor on a variety of business operations topics (certified payroll training, general human resource training, estimating and cost accounting, approach to union negotiations, etc.)
- Provide protégé an opportunity to work together in meetings to understand what it's like to be a prime contractor.
- Provide assistance to protégé in preparation of change orders, claim filing, dispute resolution, and project scheduling.
- Provide general guidance to allow the protégé to become self-sufficient, competitive, and a profitable business with expanded capabilities.

Training: Milestone implements a robust training schedule for our own employees to ensure they are receiving the most current and relative information; This equips our resources with the most up to date, necessary tools they need to perform their work safely and efficiently.

To help strengthen and expand their capabilities, Milestone will provide participating MWVBE firms access to a targeted group of training sessions.

We will offer the following **in-house training classes** to participating MWVBE firms:

- | | | |
|-----------------------------------|-------------------|--------------------|
| • Project Superintendent Training | • First Aid/CPR | • Work Zone Safety |
| • OSHA 10/30 Hour | • Crane Awareness | • Rigging |
| • Fall Protection | • Flagging | • Hazard Awareness |

Technical Assistance: In addition to fostering a mentor protégé relationship and offering in house training, Milestone offers assistance to MWVBE firms regarding documentation, understanding plans and specifications, contract compliance, and material procurement.



Prompt Payment: Milestone understands that often times MWVBE firms, particularly small firms, rely on prompt payment to conduct business day to day. Milestone realizes these challenges and will work with MWVBE firms to ensure prompt payment.

Insurance Requirements: Milestone requires all subcontractors to meet our specified minimum insurance requirements. On occasion, MWVBE firms and smaller companies do not have a policy in place that meets our minimum requirements. We will work with MWVBE firms to ensure that our insurance requirements are met - regardless of the maximum insurance coverage limits the firm may have within their existing policy. We have, in the past, helped purchase project specific policies to allow MWVBE firms to work with us. We will extend this service to participating MWVBE firms if this limitation is presented.



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5.1.3.d MENTORING, TRAINING, AND ASSISTANCE OF MWVBE FIRMS CONTINUED

Bonding Capacity: Milestone will provide assistance to MWVBE firms to aid in overcoming limitations on bonding capacity. Milestone will work with MWVBE firms and assist in finding the necessary resources available to them for expanding their bonding capacity. Milestone will also help to align participating MWVBE firms with a Bonding Financial Consultant.

Prequalification Limits: Milestone has observed situations where prequalification limits have limited MWVBE participation. Milestone will work with MWVBE firms to tailor fit bid packages to fit within their prequalification limits to overcome this challenge. This can be accomplished in a variety of ways: purchasing materials, breaking the contracts into segments by year, etc.

5.1.4 QUALITY MANAGEMENT

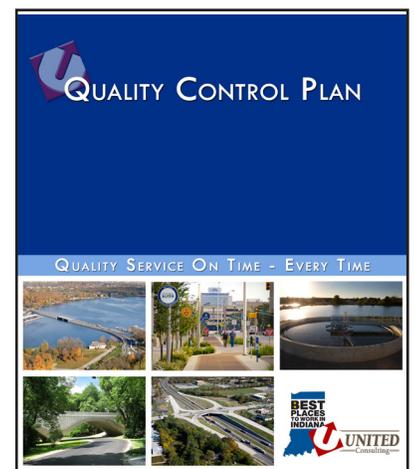
Milestone and United are working in union developing a design which will deliver a built project that meets and exceeds the project goals including quality. Our team understands the importance of all release for construction plans being designed and reviewed to eliminate issue in the field during construction. In the field, our team understands the importance of testing material to maintain the quality end product that Milestone takes pride in. The following sections outline the efforts take in design and construction to execute our quality control and assurance.

5.1.4.a DESIGN QUALITY MANAGEMENT

United has a Quality Control Policy which will be incorporated and integrated into the project as the Design Quality Control Plan. The policy uses the following philosophy:

- All deliverables are to be produced by a qualified professional staff member (designer).
- All deliverables are to be then checked by a qualified professional staff member (checker).
- Reviewed deliverables are returned to the designer for correction.
- Corrected deliverables are verified by the checker.
- The final deliverables have the identification of the original designer and checker.

Prior to a document submittal, the Design Quality Manager, Chris Hammond, will review that the quality control procedure was followed and sign the Quality Control Form submitted with all INDOT plan and design submittals. When issues are identified with the design quality control by the Design Quality Manager; the Project Manager, Lead Engineer, Quality Control Manager, and IFA's representative will meet to determine the appropriate corrective course of action.





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5.1.4.b CONSTRUCTION QUALITY MANAGEMENT

Implementation of Milestone’s Quality Management Plan will ensure that all construction and materials are in full compliance with the PPA documents thus resulting in a superior final product for IFA/INDOT. Milestone’s approach to construction quality management is based upon several years of quality control experience, as well as the implementation of best practices and procedures that have been developed and refined to ensure quality standards are being met or exceeded. Clear lines of responsibility and well defined roles will ensure full compliance. Through all phases of the project and in all areas of quality control/ quality assurance, Milestone pledges to maintain compliance with the PPA Documents and the Project Management Plan.



Integrating with Design: Milestone’s highly experienced construction team will work closely with Chris Hammond (Design Quality Manager) and the United design team to ensure that the most appropriate materials, specifications, and construction methods are being incorporated into the project design.

Project design meetings will be conducted weekly between Milestone and United to discuss all aspects of the design and construction including Quality Management. Project design meetings will be the platform for: construction material discussion and selection, reviewing plans for various constructability issues, evaluating safe and effective flow of traffic patterns during phased construction, and a multitude of other topics. All of these discussion topics will ensure a safe and efficient completion of a high quality project.

Documenting the Control of Materials: For materials that are introduced into the project where onsite QC/QA testing is required, experienced quality technicians document the date, time, and location of each test sample. The sample is delivered to the quality control lab and the results of each series of tests are documented and filed into the appropriate QC/QA report for each material. Instantaneous feedback regarding lab results is then delivered to the appropriate field personnel.

For materials delivered from an offsite source, the inspection, certification, and documentation most often occurs prior to the material being introduced to the project. These material tests, or certifications, are performed in accordance with the PPA documents and copies of the test results and/or certifications are required to be obtained prior to the material being introduced into the project. Copies of the material certifications are delivered to IFA’s construction representative.



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5.1.4.b CONSTRUCTION QUALITY MANAGEMENT CONTINUED

Testing, Inspection, and Monitoring Construction Activities:

Milestone will perform all inspection, sampling, testing, and quality control that is required to be performed by the technical provisions and the approved quality management plan. All inspection and testing is performed by certified and experienced quality control personnel under the supervision of the Quality Control Manager.

Based upon several years of quality control experience and by implementing our best practices and procedures, Milestone has developed guidelines for inspection and internal testing frequencies for QC/QA materials. These internal inspections and tests are to ensure more control and are performed in addition to the INDOT split sample acceptance testing.



From project start to finish, the monitoring of construction activities is performed across all tiers of responsibility. Ultimately the authority lies within the quality control program to ensure that all best practices and procedures are being followed and if something anomalous is observed, it is reported. Milestone takes pride in workmanship; our construction professionals are mindful of the quality standards that IFA expects.



In accordance with the PPA documents, monitoring of certain construction activities is considered a construction witness/hold point. Milestone will provide notification to IFA of construction witness/hold points as they are encountered. IFA approval is required before any further activity can proceed.

Reporting Procedures and Methodologies: To ensure that all test results, reports, certifications, and records are available for easy access and to ensure consistency in reporting, Milestone implements very practical and effective reporting procedures.

Quality Control technicians maintain an electronic diary recording daily activities, including, but not limited to, weather conditions, quantity and identification of material produced, time and date test samples were obtained and completed, location of samples, test sample results, and any significant events. All tests ran in the quality control lab are shown in reports that are identifiably related to the test results shown in the diary. Test results are reported and charted (when applicable), in IFA/INDOT approved formats and are included in the electronic file for each material.

IFA/INDOT Involvement: Coordination and Communication between Milestone and IFA/INDOT is imperative for successful quality management. Milestone will be conducting weekly meetings onsite with IFA/INDOT to discuss project specific items; these meetings will act as a vehicle to discuss quality management and the anticipated QC activities expected to take place throughout the week. The weekly meetings held on site are referenced in Figure 5.1-7.

In accordance with the PPA, IFA will be providing oversight, inspection, and quality assurance and acceptance testing for the project. Milestone, and its subcontractor's, will coordinate and cooperate with IFA to facilitate the inspection, review, and oversight activities. Milestone will provide IFA/INDOT safe and suitable access for inspection of materials at the time of placement or installation.



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5.1.4.b CONSTRUCTION QUALITY MANAGEMENT CONTINUED

Corrective Actions: Throughout construction, a qualified team of construction inspectors and construction personnel will monitor and oversee the construction and inclusion of materials into the project. In accordance with our best practices and procedures, Milestone will ensure that all tests are being performed and recorded at the appropriate frequencies to help accurately identify and delineate any potential quality issues. In such case where construction or a material of questionable quality has been recognized, the Milestone team along with IFA/INDOT will discuss the appropriate actions to be taken to maintain compliance. A Corrective Action Plan will be developed and construction operations may be required to be stopped until appropriate Quality Control operations are taken. Milestone will comply with all requirements of the PPA and take the necessary steps to ensure that all construction and material meets or exceeds specifications.

5.1.5 SAFETY, ENVIRONMENTAL MANAGEMENT AND COMMUNICATIONS

Milestone is committed to safety, environmental management, and communications to create a positive image for the high profile project.

5.1.5.a SAFETY

Safety at Milestone Contractors is centered on **two primary beliefs**.

Safety is a value we will not compromise. Our employees, partners, subcontractors, and suppliers are our greatest resource.

The project team has developed a preliminary Health & Safety Plan to be implemented throughout the life of the contract. Russell Randle, Safety Manager at MCLP, will be responsible for overseeing and assisting in the success of the project safety plan.

The **Core Value** of the Safety Plan is to achieve zero injuries through **Milestone’s 11 Life Saving Commitments**.

1. First and foremost is the Daily Risk Assessment. Our team will identify and address their work daily for the ways to eliminate hazards and/or ways to exceed simple compliance in protecting themselves from potential hazards. All employees on-site have Stop Work Authority.
2. Safe Equipment Operation, Transportation, and Seat Belt usage
3. Proper Lock-Out/Tag-Out
4. Guardians of Equipment and Tools
5. Confined Space
6. Fall Protection
7. Lifting/Rigging, Crane Signaling, and Certified Crane Operations
8. Utility Protection – Overhead and Underground
9. Personal Protective Equipment
10. Work Zone Safety – The project management team are all Certified Traffic Control Supervisors through the American Traffic Safety Services Association (ATSSA)
11. Milestone requires all subconsultants to submit project specific safety plan which incorporates their measures and all Milestone safety requirements.



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5.1.5.a SAFETY CONTINUED

A hard copy of the project safety plan and commitments will be posted in the field office. All OSHA required postings will also be displayed and maintained at the field office. Electronic copies will be available to the Field Supervisors for use on their tablets or laptops.

Commitment and planning involving all management and employee levels will see that this project completes in the safest possible manner. Should a safety concern arise with the IFA, we will work quickly and diligently to resolve the issue. Any team member associated with the project who fails to abide by the safety standards and plan set forth for the project will be subject to disciplinary action and removed from the job site.



Safety is a Choice. If it's unsafe, we will not do it.

5.1.5.b ENVIRONMENTAL MANAGEMENT

Milestone understands the sensitivities and commitments expected for construction activities and the final built project.

5.1.5.b.i QUALIFICATIONS

Milestone Contractors, L.P.'s Randy Wilkinson will serve as the Environmental Compliance Manager and will be assisted by United Consulting Engineer's, Mike Oliphant. Randy's resume is included in the Appendix. Mike has over 15 years of experience working with the governmental agencies in the state of Indiana. Their experience working on projects involving government agencies assists in meeting expectations and finding compliance with reduced efforts and iterations.



Mike Oliphant, AICP

Ball State University - BS Natural Resources and Environmental Management (1999)

Specialized Training:

- U.S. Army Corps of Engineers Wetland Delineation Manual
- Wetland Training Institute – Preparing Wetland Construction Plans
- Stream Bank Stabilization and Restoration
- Wetland Plant Identification (summer and winter)
- Winter Botany Class (2011)



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5.1.5.b.ii COMPLIANCE

Randy and Mike will draft the Environmental Compliance and Mitigation Plan in accordance with the PPA, Technical Provisions, coordination activities, and Project Baseline Schedule. The draft will be submitted to IFA for approval. In order to achieve that desired environmental compliance, Randy and Mike will work together to proactively make ensure the design and that construction activities meet all commitments.

5.1.5.b.iii INSTALLATION AND MAINTENANCE

Milestone is sensitive to protecting the environment and has policies and procedures in place to ensure Temporary Erosion and Sediment Control Devices (TESCD) are installed and maintained properly, and are in compliance with all governing agencies. Randy Wilkinson, Erosion Control Manager (ECM), is charged with the responsibility to ensure TESCDs are properly installed, maintained and repaired for the life of the project.

1. TESCDs will be installed in the watershed of earth-disturbing activities prior to any earth-moving operations. Figure 5.1.-12, Project Environmental Checklist serves as a guideline for environmental policies and procedures to be followed at the jobsite.
2. TESCDs will be installed as shown on the approved plans
3. TESCDs will be installed in strict accordance with INDOT Standard Drawings. The ECM shall verify proper installation before earth-disturbing activities begin.
4. The ECM shall inspect the TESCDs weekly, as a minimum, or after a rain event of 1/2" or more. Inspections will be documented on INDOT form "Storm Water, Erosion, and Sediment Control Inspection Report". A copy of that inspection report is attached as Figure 5.1-13. The ECM shall forward a copy of the inspection reports to the CM/CS and the PM. The PM shall maintain copies of the inspection reports accessible to IFA/INDOT for review.

FIGURE 5.1-12 Environmental Checklist

PROJECT ENVIRONMENTAL CHECKLIST	
Storm Water Estimators	
<input type="checkbox"/>	Does the construction project have land-disturbing activities greater than the threshold (one acre for most counties)?
<input type="checkbox"/>	Has a Construction Plan with a Storm Water Pollution Prevention Plan (SWPPP) been submitted and/or approved (minimum 28 days prior to activities)?
<input type="checkbox"/>	Has a Notice of Intent (NOI) (permit application) been submitted for the project (48 hours prior to initiation of work activities)?
<input type="checkbox"/>	Has a Post Construction SWPPP been prepared?
Superintendents/Job Sites	
<input type="checkbox"/>	Has MCLP verified that the site owner has notified IDEM within 48 hours of initiation of work activities?
<input type="checkbox"/>	Areas inactive for 15 or more days must have stabilization. [Note: Estimator needs to consider this when bidding & executing contracts so that any associated costs are assigned to the correct party and covered.]
<input type="checkbox"/>	Self Monitoring (See Milestone inspection forms) <ul style="list-style-type: none"> <input type="checkbox"/> Weekly storm water inspections <input type="checkbox"/> Rain event (>0.5 inches) inspections within 24 hours <input type="checkbox"/> Inspection reports available for inspectors
<input type="checkbox"/>	Site Postings <ul style="list-style-type: none"> <input type="checkbox"/> Copy of the NOI <input type="checkbox"/> Copy of permit with number <input type="checkbox"/> Site owner contact information <input type="checkbox"/> Location of Construction Plan
Spill Plans Estimators	
If any of the following apply, a SPCC Plan or Spill Plan will be required.	
Will Milestone have petroleum storage tanks on site above the following threshold? <ul style="list-style-type: none"> <input type="checkbox"/> Single container greater than 660 gallons? <input type="checkbox"/> Cumulative storage greater than 1320 gallons? 	
<input type="checkbox"/>	Is the client requiring a spill plan for petroleum storage?
Superintendents [Note: If the above are required, do NOT go to work without compliance.]	

Storm Water, Erosion, and Sediment Control Inspection Report						INDOT (4-2012)
Project Information						
INDOT Lead Des Number:		Inspection Type		Inspection Date:		
Contract Number:		<input type="checkbox"/> 24 hr (After a > 0.5" Event)		Date of Last Precipitation:		
Road/County:		<input type="checkbox"/> Weekly <input type="checkbox"/> QA/QC		Amount of Last Precipitation:		
Areas Inspected						
Area Type	Inspected	Area Type	Inspected	Area Type	Inspected	
Disturbed Areas	<input checked="" type="checkbox"/> N/A	Areas where Water Project Site	<input checked="" type="checkbox"/> N/A		<input checked="" type="checkbox"/> N/A	
Material Storage Areas		Other:				
How was inspection conducted? (check all that apply)		<input type="checkbox"/> Windshield				
Stationing Inspected						

FIGURE 5.1-13 TESCD Inspection Report



Major Moves
2020



F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.1 - 5.2

5.1.5.b.iii INSTALLATION AND MAINTENANCE CONTINUED

5. In the event the ECM determines that additional TESCDs are required to prevent sediment from leaving the Project, he shall immediately notify the Lead Engineer for further evaluation.
6. In the event that any TESCD is found to be damaged or fails to perform as intended, the ECM shall promptly notify the CM/CS. The CM/CS shall ensure that the faulty TESCD is repaired within 24 hours.

5.1.5.b.iv ENVIRONMENTAL RISKS

As is typical with Design-Build projects, finalizing the permits will be on the critical path. Our efforts will focus on beginning construction timely and open the project to unrestricted traffic as soon as possible while meeting the project requirements. The completion of the Section C modifications to the USACE 404 permit and IDEM Section 401 are necessary for approval of the Rule 5 and start construction field activities. In order to meet the project schedule and mitigate risks, the Rule 5 will be submitted separately for Sections A & B and then Section C. By separating the Rule 5 into two submittals, it ensures that there will be areas off the critical path that can begin construction upon approval of the design elements.

5.1.5.b.v COMMUNICATIONS

Effective and clear communication is essential for project delivery. Milestone will follow the procedures for communication described in Section 5.1.1.b of this document.

5.2 PRELIMINARY DESIGN-BUILD PLAN

Milestone Contractors, L.P. has worked with United Consulting to develop a design that focuses on the strengths of the construction team to deliver the maximum length of mainline interstate added travel lanes and meets the intent of the Technical Provisions and the project goals. Our team is focused on the added travel lanes for approximately 14 miles of I-69 in Hamilton and Madison Counties.

Milestone reflected on the I-65 Added Travel Lanes Design-Build project in Boone County and the practices that allowed them to deliver that added travel lane project for the greatest value to INDOT. Our team focused on not reinventing a successful project delivery method, but to refine it and benefit from the lessons learned. The I-65 project was successful because efficient methods, construction sequencing, and operations were planned for the project's largest cost contributors: pavement and maintenance of traffic. The initial review of the elements contributed approximately 70% of the I-69 project cost to the **Big Five Cost Contributors**:

1. Pavement, 2. Maintenance of Traffic, 3. Bridges, 4. Noise Barriers, and 5. Underdrains

Our team recognizes cost savings can be found throughout all the project elements, but approximately half of the project cost is tied to the pavement. Our design approach looked to develop methods to deliver the project goals through reducing the cost of these major cost contributors.

F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.1 INTERCHANGE CONFIGURATION AND PERFORMANCE

The interchange includes most of the major cost contributors so we analyzed the methods to reduce the pavement area, simplify maintenance of traffic, and reduce the bridge widening. We understood the importance of evaluating methods of achieving these while improving the traffic operations.

5.2.1.a INTERCHANGE CONFIGURATION

Our review of the information developed and approved for the Final Interchange Justification Report for the interchange at I-69 and Campus Parkway demonstrated that the dual crossover diamond interchange was a sound solution to the future challenges of the interstate access. Our review looked at alternative interchange configurations. Several interchanges would have required additional right-of-way and environmental impacts while not improving operations or reducing overall project cost. The roundabout interchange configuration, while reducing the construction cost and operating with less traffic delay at non-peak traffic time, was challenged by the additional traffic during events at Klipsch Music Center and desired reserve capacity.

It is our understanding that the two interchanges that will operate the most efficiently for the greatest value are the roundabout diamond and dual crossover diamond.

Our team did initially evaluate the concept of merging the two interchange types and providing a roundabout interchange with signals at locations to control traffic during peak traffic events. Although the hybrid interchange may have met the traffic operation requirements, driver expectations for the traffic control switching between the yielding roundabout movements and a signalize control could create confusion.



Ultimately, our team determined that the best solution for the interchange was to maintain the preferred interchange configuration from the Interchange Justification, dual crossover diamond. We believe that carrying forward the dual crossover diamond interchange is an added value for IFA. We are designing and constructing the interchange that allows for the cities of Noblesville and Fishers to capitalize on the tremendous development potential around the interstate. We are accomplishing this through providing the interchange with the mostly additional traffic capacity in the peak hours and during events. Part of the basis of this decision was the recognition that when a roundabout intersection fails there is few measures to address the deficiency unlike a signalized intersection where it is possible that the signal timing can be adjusted based on demand to make traffic operation improvements.

FIGURE 5.2-1 - Preferred Alternative



Image from: Interstate 69 Exit 210 IJR Appendix A: Interchange Alternative Analysis Report submitted by: Parsons



F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.1.b ALTERNATE INTERCHANGE TRAFFIC ANALYSIS

Milestone has not changed the interchange from the preferred alternative and therefore meets all the traffic performance requirements in the Technical Provisions.

5.2.1.c ALTERNATE INTERCHANGE SCHEMATIC

Milestone has not changed the interchange from the preferred alternative and matches the interchange layout proposed in the Technical Provisions.

5.2.1.d INTERCHANGE OPERATIONS

Milestone has not changed the interchange from the preferred alternative and matches the interchange layout proposed in the Technical Provisions.

During the review of the interchange operational analysis it was noted that the lane configurations on the ramps shown in the plans did not match the configuration of the lanes in the Synchro model included in the Interchange Justification. The discrepancies were related to the length and number of lanes on the exit ramps approaching the diversion point on the ramps to the diverging diamond.

The adjustments to the lane configurations did not result in an adverse effect on the queuing for the ramp lanes.

FIGURE 5.2-2 - Summary of Available Queue Lengths

Movement (synchro node #)	Queueing length available*	Required for AM Peak	Required for PM Peak	Required for PM Peak with event loading
Southbound to Westbound (58)	1,385	85	135	168
Southbound to Eastbound (59)	385	19**	34**	35**
Northbound to Westbound (54)	1,340	64	207	211
Northbound to Eastbound (73)	1,440	47	227	276

* Length is measured from stop bar to back of gore or beginning of lane

** HCM 2010 methodology does not provide 95% queue lengths for yield control intersections, HCM 2000 reports were used.

5.2.1.e INTERCHANGE INTERSECTION OPERATIONS

The traffic volumes used in the analysis were based on the volumes included in the Interchange Justification to avoid the need for revisions to the IJ Study. See attached appendix for input summaries and analysis output.



F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

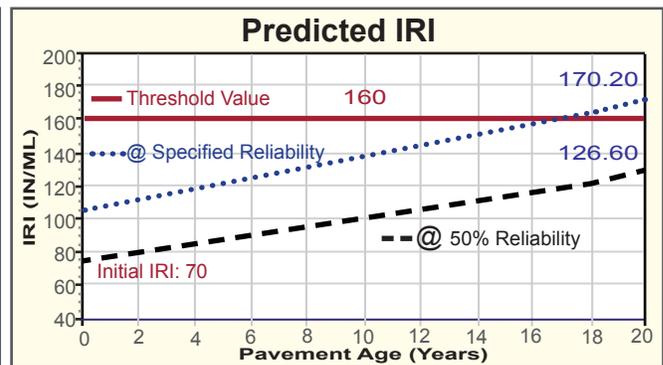
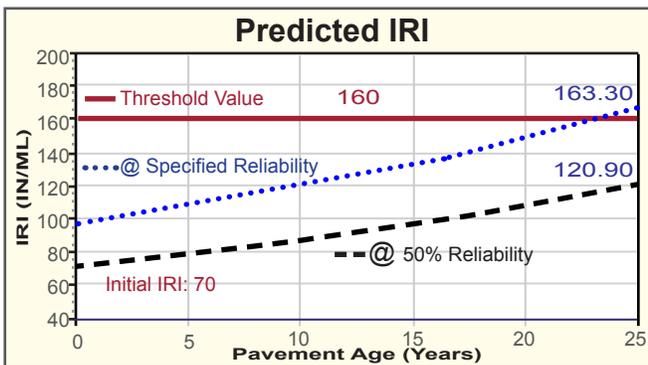
5.2.2 PAVEMENT DESIGN

By far, the single most influential cost component of the I-69 Major Moves project is the pavement. Milestone spent significant time researching the proposed pavement design, maintenance methods and the predicted pavement failures. After briefly considering rehabilitation strategies for rehabilitation using concrete pavement, Milestone selected Hot Mix Asphalt (HMA) pavement to rehabilitate and widen I-69.

5.2.2.a PAVEMENT REHABILITATION

Over the history of I-69, INDOT has made substantial investments in the construction and maintenance of the I-69 pavement. The pavement rehabilitation strategy developed by Milestone is to take the investments previously made by INDOT, and rather than replace the most recent of those investments in pavement, let that investment continue to add value to the roadway infrastructure. Through the execution of this project, Milestone will increase the value of I-69 as an asset. We used the information provided to design an overlay of the existing pavement, based on INDOT's pavement design methodology, will provide an acceptable driving surface for longer than the required 16 year service life. Through the pavement design, our pavement overlay strategy is predicted to provide acceptable service for over 20 years.

FIGURE 5.2-3 - IRI and Rutting Distress Charts



Milestone IRI Distress Chart

INDOT IRI Distress Chart



Milestone Total Rutting Distress Chart

INDOT Total Rutting Distress Chart

5.2.2.a PAVEMENT REHABILITATION CONTINUED

The majority of the I-69 Major Moves project is in very good condition. Some surficial distresses exist that will be corrected by the proposed overlay. Isolated locations will require full depth and partial depth patching. The locations of patching will be determined using the patching table included in the reference documents and by inspections performed at the time the patching is performed. The patching will use full depth concrete patches to minimize the disruptions to the motorists by allowing the pavement surface of the patches to match the adjacent pavement following overnight installation operations. By using concrete to patch the locations, more patches can be placed in a single evening construction's operations and the overall construction duration is shortened.

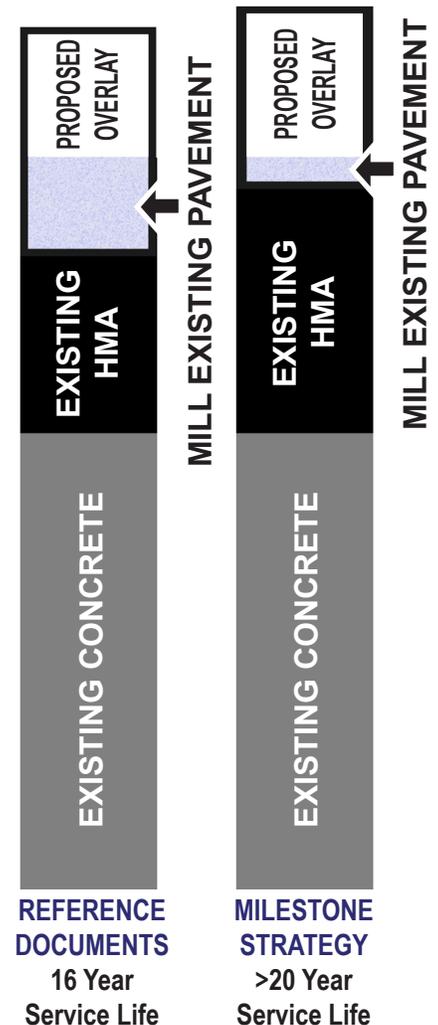


Milestone's rehabilitation will minimize the milling of the existing pavement to what is required to create a continuous 2% cross slope and to provide an improved interface between the existing pavement and the overlay. A four inch thick overlay consisting of two equal depth layers will be placed, the top layer incorporating a Stone Matrix Asphalt (SMA) composition for increased durability against rutting and improved pavement smoothness. The lower layer will be used as the driving surface during the construction of the project. This common construction practice can lead to a reduced pavement lifespan because traffic is introduced to the pavement without the benefit of the surface mix that both adds structure and keeps water out of pavement structure. Our design addresses this concern by using a 12.5mm aggregate mix, as opposed to the referenced 19.0mm aggregate mix, for the lower layer of the rehabilitation treatment. The 12.5mm mix is used as a pavement surface in locations where a surface layer greater than 1 1/2 inches thick is required, including this project. The top layer, a 12.5mm SMA mix, will be placed near the end of construction to maximize the condition of the pavement at the project completion and avoid milling associated with removing temporary markings. **From the rehabilitation standpoint only, the associated savings by reducing the thickness of the milling and overlay result in a 25% increase in the length of project that can be rehabilitated.**

FIGURE 5.2 - 4
Patching Location



FIGURE 5.2 - 5
Rehabilitation Strategy



F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.2.a PAVEMENT REHABILITATION CONTINUED

The rehabilitation strategy was reviewed by IFA and found to be “generally responsive to the requirements of Addendum #1 of the PPA Documents and RFP”. A summary of the design inputs can be found below:

FIGURE 5.2-6 - Summary of I-69 Design Inputs

Pavement Section:	Rehabilitation		
Roadway:	I-69		
Station Range:	263+40 "A" to 133+55 "C" and Various bridge locations between 263+40 "A" to 133+55 "C"		
	TP Value	Value Used	Notes
Functional Classification	Freeway	Freeway	
AADT 2015	63,440	63,440	
Growth Factor	1.69%	1.69%	
% of Trucks, #	20%	20%	
Design Speed	55	55	
Water table, ft	5	5	
HMA Rehabilitation, (Level 3), Pavement rating	n/a	Fair	TP value not listed
HMA Rehabilitation, (Level 3), rut depth, in	n/a	0.09	TP value not listed
Existing HMA Depth, inches	6.5	6	Value shown does not reflect milling
Existing Concrete Depth, inches	10	10	
Existing Concrete Resilient Modulus, psi	150,000	150,000	
Subgrade Type	IB (cement only)	IB (cement only)	
Soil Classification	A-7-6	A-7-6	
Resilient Modulus, psi (Treated)	n/a	n/a	
Resilient Modulus, psi (Natural)	9,100	9,100	

F. PRELIMINARY PERFORMANCE PLANS

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5.2.2.a PAVEMENT REHABILITATION CONTINUED

At existing bridge overpass locations it will be necessary to deviate from the proposed rehabilitation strategy in order to meet the vertical clearance requirements. In these locations, additional milling and an increase in the overlay thickness are required. The analysis performed demonstrates that the existing pavement may be milled to the depths required for a five inch thick HMA inlay to be constructed that will meet both the vertical clearance requirements and pavement performance requirements.

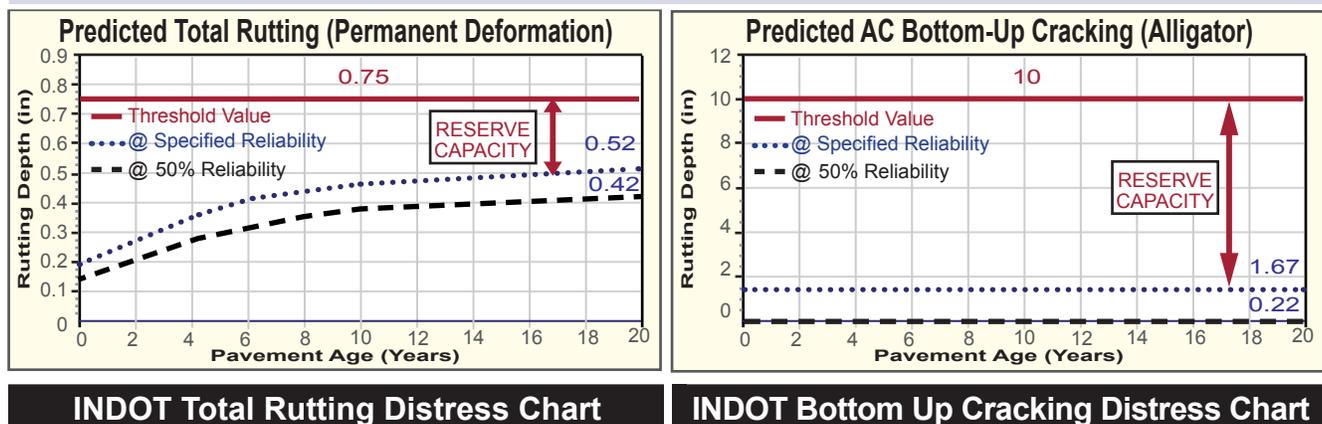
The pavement rehabilitation sections follow the PPA, Technical Provisions, and INDOT Standards. See the Appendix for the pavement design.

5.2.2.b PAVEMENT WIDENING

Early in the development of the pavement design for the project, United's engineers recognized that the preliminary pavement design requirements were driven by the International Roughness Index (IRI) criteria of 160 inches/mile. The pavement was structurally adequate, but due to the subgrade and environmental effects, the designs weren't maintaining their smoothness through the initially required 20 year lifespan of the pavement. Additional thickness was being added to the section to nominally increase the performance of the pavement.

While this marginally improved the performance of the pavement, it significantly increased the cost of the pavement. The expected maintenance cycle for the proposed two-lift HMA pavement inlay/overlay adjacent to the widening pavement involves a rehabilitation treatment after 15 years. As originally proposed, the widened section would have a maintenance treatment after 20 years. It did not make sense to have the pavement on different maintenance cycles that would create inefficiencies for INDOT in the future. Effectively, a reserve capacity was being designed in to the widening pavement.

FIGURE 5.2-7 - INDOT Distress Charts



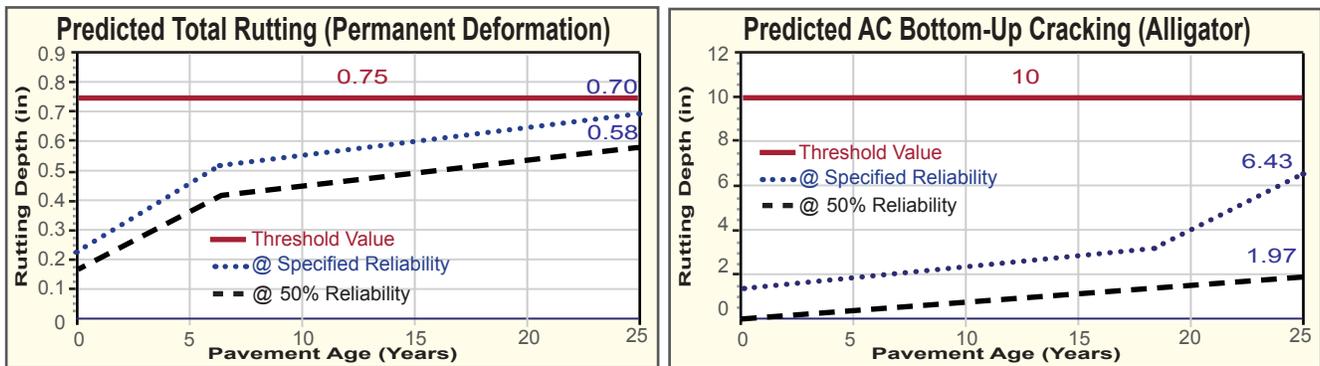


F. PRELIMINARY PERFORMANCE PLANS EXHIBIT B, SECTION 5.2

5.2.2.b PAVEMENT WIDENING CONTINUED

Milestone worked with IFA to recommend revised pavement design criteria that allowed for the widening pavement to be designed structurally as a long term solution and functionally for the anticipated life of the existing portions of the roadway cross section. The result of our pavement design is a conversion from reserve capacity to mileage of widening. It is also worth noting that the proposed designs are for the inside lane of a three lane (each direction) interstate, while the design lane is typically the outside travel lane. As a result the damage inflicted upon the pavement can reasonably be assumed to be less than what it is designed to experience. During the design process, consideration was given to an Alternative Technical Concept (ATC) to design the pavement to a lower truck volume. However, because the pavement will likely be used for counterflow operation during future rehabilitation or reconstruction of the roadway, that concept was not deemed as an equivalent to the design parameters used in the pavement design.

FIGURE 5.2-8 - Milestone Distress Charts



Milestone Total Rutting Distress Chart

Milestone Bottom Up Cracking Distress Chart



The proposed widening pavement will consist of a 14 inch thick HMA pavement section. The surface layer will be composed of an SMA pavement and the pavement will contain an internal drainage layer for the underdrains that will be provided. The proposed design meets and exceeds the 16 year functional performance and the 25 year structure performance thresholds. When combined with the proposed rehabilitation strategy, the total tonnage of HMA required per linear foot is reduced from 6.41 Tons/lft to 5.03 Tons/lft, **resulting in a 127% increase in the length of interstate that can be improved.** The proposed widening section was reviewed by IFA and found to be “generally responsive to the requirements of Addendum #1 of the PPA Documents and RFP”.



F. PRELIMINARY PERFORMANCE PLANS

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5.2.2.b PAVEMENT WIDENING CONTINUED

FIGURE 5.2-9 - Summary of I-69 Design Inputs

Station Range:	263+40 "A" to 133+55 "C"		
Roadway:	I-69		
	TP Value	Value Used	Notes
Functional Classification	Freeway	Freeway	
AADT 2015	63,400	63,400	
Growth Factor	1.69%	1.69%	
% of Trucks, #	20.00%	20.00%	
Design Speed	55	55	
Resilient Modulus, psi (Treated)	7,500	7,500	
Resilient Modulus, psi (Natural)	3,000	3,000	
Subgrade Type	IB (cement only)	IB (cement only)	
Water table, ft	5	5	

Within the project limits, south of 116th Street, widening will be required on the outside lanes for a new auxiliary lane that will continue into the future 106th Street interchange. United explored alternative pavement designs in an attempt to reduce the thickness of the proposed pavement but was unable to develop a thinner or more cost effective section. The proposed section, while experiencing lower truck traffic volumes, also has a lower design speed. The lower speed was a controlling variable in the pavement thickness.

FIGURE 5.2-10 - Summary of I-69 Ramp Design Inputs

Roadway:	I-69 Entrance Ramp		
Station Range:	115+00 to 140+69 "116th SB Ramp"		
	TP Value	Value Used	Notes
Functional Classification	Freeway	Freeway	
AADT 2015	12,350	12,350	
Growth Factor	0.50%	0.50%	
% of Trucks, #	5.00%	5.00%	
Design Speed	45	45	
Resilient Modulus, psi (Treated)	7,500	7,500	
Resilient Modulus, psi (Natural)	3,000	3,000	
Subgrade Type	IB (cement only)	IB (cement only)	
Water table, ft	5	5	



F. PRELIMINARY PERFORMANCE PLANS

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5.2.2.b PAVEMENT WIDENING CONTINUED

The pavement widening sections have been reviewed and found to be in conformance with the Technical Provisions. The pavement design and IFA review letter are included in the Appendix.

5.2.2.c PAVEMENT RECONSTRUCTION

As the result of our analysis at the bridge locations, it will not be necessary to reconstruct the approaches or pavement beneath overpass bridges. The benefits of these findings reduce the number of maintenance of traffic (MOT) phases and the duration of the construction for I-69. If any pavement is required to be reconstructed along I-69 it is anticipated that it will have the same composition as the pavement widening. Small reconstruction areas may be treated in a manner similar to patching, where the existing pavement thickness will be matched.

Pavement reconstruction along Campus Parkway will be required due to the reconfiguration of the interchange from a diamond interchange to a double crossover diamond interchange (DCDI).

FIGURE 5.2-11 - Summary of Campus Parkway Design Inputs

Roadway:	Campus Parkway		
Station Range:	100+00 to 121+93 "PR-C-EB"		
	TP Value	Value Used	Notes
Functional Classification	Urban Arterial	Urban Arterial	
AADT 2015	24,730	24,730	
Growth Factor	1.07%	1.07%	
% of Trucks, #	2.70%	2.70%	
Design Speed	25	25	
Resilient Modulus, psi (Treated)	7,500	7,500	
Resilient Modulus, psi (Natural)	3,000	3,000	
Subgrade Type	IB (cement only)	IB (cement only)	
Water table, ft	3	3	



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5.2.2.c PAVEMENT RECONSTRUCTION CONTINUED

FIGURE 5.2-12 - Summary of SR 13 Design Inputs

Roadway:	SR 13		
Station Range:	53+00 to 57+00 "SR13"		
	TP Value	Value Used	Notes
Functional Classification	Urban Arterial	Urban Arterial	
Functional Classification	Urban Collector	Urban Collector	
AADT 2015	12,472	12,472	
Growth Factor	1.07%	1.07%	
% of Trucks, #	12.00%	12.00%	
Design Speed	55	55	
Resilient Modulus, psi (Treated)	7,500	7,500	
Resilient Modulus, psi (Natural)	3,000	3,000	
Subgrade Type	IB (cement only)	IB (cement only)	
Water table, ft	3	3	

The pavement reconstruction sections follow the IPA, Technical Provisions, and INDOT Standards.

5.2.3 ROADWAY ELEMENTS

Both Milestone and United were significantly involved in the delivery of the I-65 Added Travel Lane Design-Build in Boone County which is viewed as the template for the Major Moves 2020 projects. During the delivery of that project, United analyzed every element of the roadway elements to refine and deliver the project for the lowest construction cost while providing the desired scope of the project.



Our team recognizes that every savings we find that delivers an equal or greater product increases the length of I-69 added travel lanes delivered. With the IFA's expectations defined in the Technical Provisions and plan typical section elements, we focused on the most effect method to construct the project.

F. PRELIMINARY PERFORMANCE PLANS

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5.2.3.a CONSTRUCTION SEQUENCING

Milestone and United have further developed an efficient construction sequencing and maintenance of traffic plan used on I-65 Added Travel Lanes in Boone County for this project. The traffic count difference between the two projects is that I-69 has heavy traffic but with significantly less truck traffic than I-65. The construction sequencing is being evaluated and is intended to have multiple mainline operations ongoing concurrently and the interchange modification at Campus Parkway.

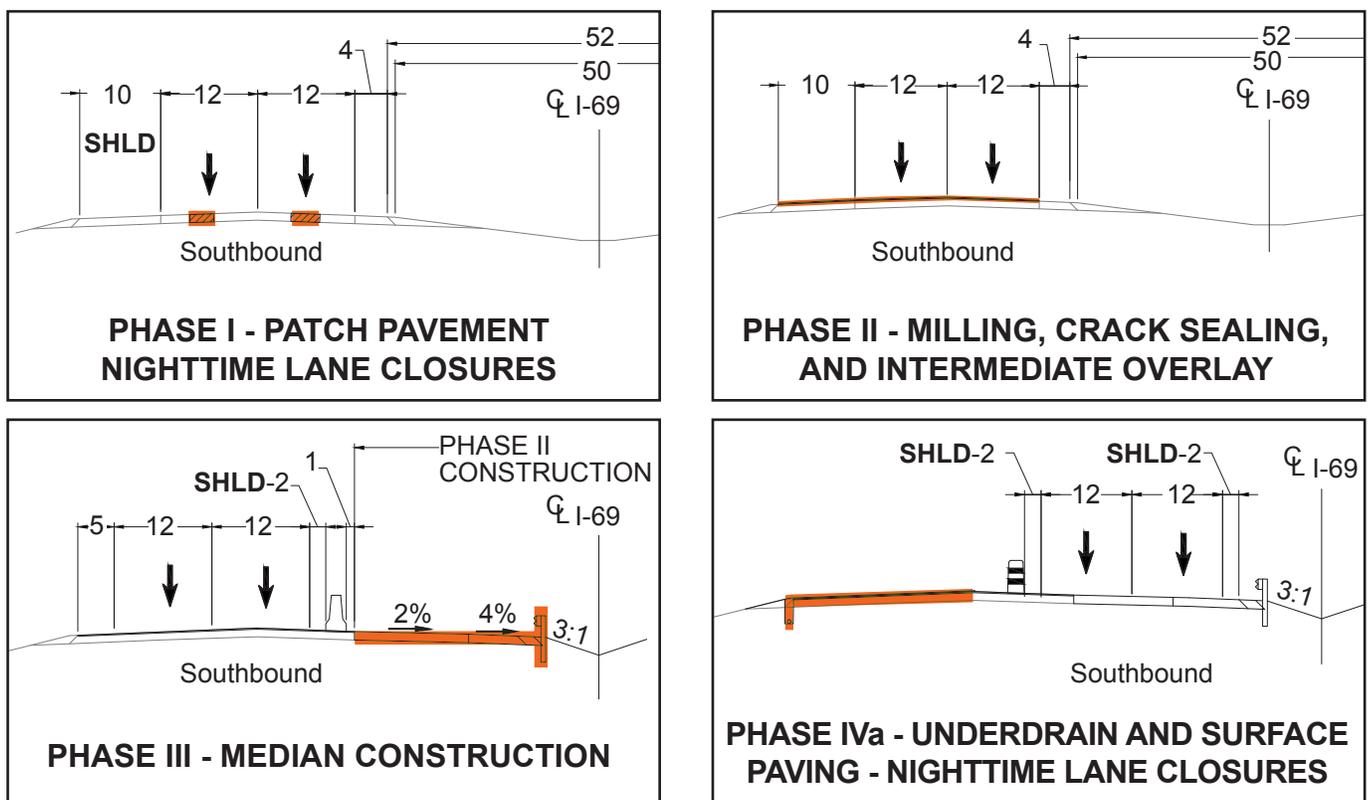
The construction sequencing for mainline and the interchanges are discussed in detail in section 5.1.2.

5.2.3.a.i OVERALL TRAFFIC MANAGEMENT

The maintenance of traffic (MOT) is a significant component of project delivery and the construction cost. During our project development meetings, the team discussed what our approach would be for maintaining traffic if the project was only the patching and functional overlay. The overwhelming consensus was that the project would be completed at night with lane closures.

The maintenance of traffic phasing is detailed in Section 5.1.2.

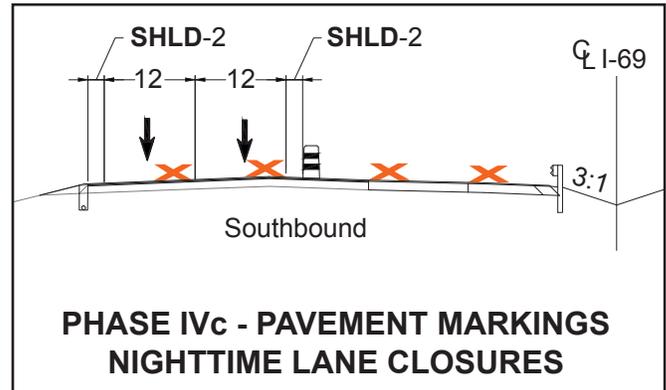
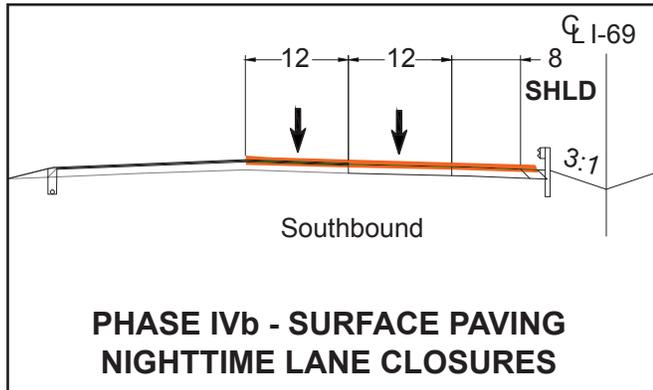
FIGURE 5.2-13 - MOT Phasing (Mirrored for Northbound)



F. PRELIMINARY PERFORMANCE PLANS

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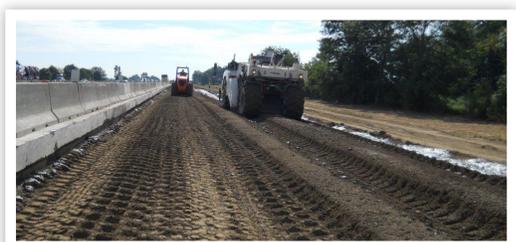
5.2.3.a.i OVERALL TRAFFIC MANAGEMENT CONTINUED



All traffic will be primarily maintained on newly improved roadway surfaces which should limit any needed maintenance during construction which will be a value to IFA.

Rehabilitation Operations: The nighttime lane closures will follow the applicable standards for advanced signing and separation of traffic from construction activities. The use of extensive advancing flashing lights and workzone lighting will be in place to ensure the traveling public is aware of the workzone and the safety of the construction workers, inspection personnel, and IFA representatives.

Widening Operations: The median widening with new pavement will be accomplished with positive protection between the construction workers and IFA representatives and the traveling public. The focus will be on completing the northbound widening with construction access entering the work zone safely from the southbound lanes. At the completion of the section of northbound, the sequencing will be reversed. This operation provides value to IFA through the safety of the construction workers, inspection personnel, IFA representatives, and the traveling public. The traveling public will have enhanced safety because there will be no cross overs and only shifted traffic.





F. PRELIMINARY PERFORMANCE PLANS

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5.2.3.a.ii CONCEPTUAL CONSTRUCTION STAGING

The ramp staging at the Campus Parkway and SR 13 interchanges will be completed maintaining access on and off the interstate with no interruption. The ramps to be rehabilitated will be completed in the evenings with temporary shifts to accommodate traffic through construction.

5.2.3.a.iii ACCESS TO BUSINESS AND RESIDENTIAL PROPERTIES

Our team has developed a plan to complete construction with minimal impact and restrictions to the existing travel lanes. Although the project contains no direct access to businesses or residential properties through driveways, our team understands the impacts to the commuters and consumers of the nearby businesses.

The improvements at Campus Parkway will be evaluated during construction to determine if there are modification that can be made to improve traffic operations including the adjustment of signal timing, construction sign placement and messages, and possibility the accelerating less desirable traffic operation phases.

Additionally as part of our Public Involvement Plan as described in Section 5.1.1b.v, our team will inform the businesses and residential properties of upcoming changes in construction sequencing and have a method for any concerned to be voiced and addressed.

5.2.3.a.iv MINIMIZING IMPACTS

Our Project Baseline Schedule is being developed to minimize disruptions and impacts to the environment, communities, third parties, and traveling public while still meeting the requirements of the PPA. The Project Baseline Schedule is further described in Section 5.1.2.



The interstate added travel lanes resulted in the project being a borrow job that requires earthwork to be brought on site to complete the improvements. The scope of the existing pavement having a functional overlay limits revisions to the vertical profile to balance the project. Our ATC #7 which uses the recycle asphalt pavement (RAP) in the aggregate wedge and median fill, results in a reduction in earthwork being brought on site and cost savings. Additionally, the use of RAP reduces the area disturbed in the right-of-way to produce fill material which is more environmentally sensitive.





F. PRELIMINARY PERFORMANCE PLANS

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5.2.3.a.v STAGING AREAS

The project length requires that multiple locations are utilized for staging and laydown areas. The interchange infields will be prepared for staging and laydown and then returned to their previous condition after construction. The bridge structures will utilize areas in the immediate vicinity of the structure. All staging and laydown areas will be delineated to protect environmental sensitive areas. Furthermore, spill containment measure will be installed to prevent accidental contamination of the environment.

To reduce the environmental impact of the project, existing asphalt removed will be recycled on site to be utilized as RAP. Asphalt for the project will be produced at the Milestones 96th Street plant which further reduces impacts of asphalt production on the project site.

5.2.3.b GEOTECHNICAL RELATED ISSUES

The geotechnical information provided has been reviewed by Alt & Witzig Engineering. They have worked to identify any additional information that will need to be completed for the project. In the RID, isolated areas were identified with an organic matter and will need to be undercut. The recommendation for the roadways were to estimate approximately 10% of the project limits to be undercut an additional six inches. Additionally, several of the bridges, like I-69 over Foster’s Branch, will require additional geotechnical borings to evaluate the foundation options. Our team will develop the additional investigations needed to deliver the project as required by the PPA and Technical Provisions.

5.2.3.c MAINTAINED AND PROTECTED

The project site will be maintained and the surrounding properties protected through the full implementation of our Project Management Plan. Construction activities impacting the project site will protect the environment through the use of our approved plan for the erosion and sediment control measures. These measures will be maintained and repaired during the duration of the project.

The project impacts to the surrounding properties and traveling public will utilize these practices:

- Nighttime Construction activities will limit light pollution through properly directed light toward the ground and construction activities.
- Noise will be minimized through installation of the noise walls as soon as possible, in addition to well maintained construction equipment.
- Dust will be controlled through the water trucks which depending on the weather conditions can be effective for hours or days.
- The enforcement of speed controls for the travelling public and construction equipment will reduce noise and dust.
- Vibrations will be controlled in sensitive areas through alternate compaction techniques and construction sequencing.



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Preliminary
Performance Plans

VOLUME
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F. PRELIMINARY PERFORMANCE PLANS

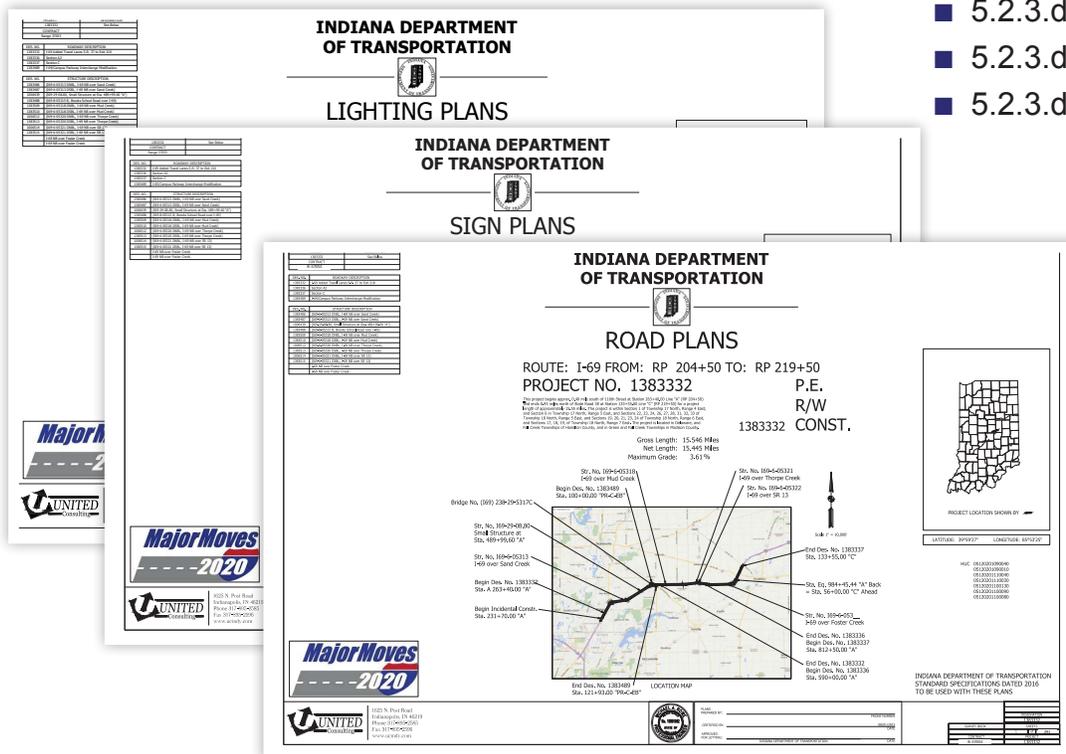
EXHIBIT B, SECTION 5.2

5.2.3.d PRELIMINARY ROAD PLANS

The Preliminary Road Plans have been prepared in 11" x 17" plan sheets which indicate the Work to be completed. Additionally, a geometric layout for each interchange are at a scale of 1 inch = 100 feet. The plans and layout sheets are included in the Appendix.

The plan set include the requirement plan sheets for:

- 5.2.3.d.i Road Plans
- 5.2.3.d.ii Signing Plans
- 5.2.3.d.iii Lighting Plans



5.2.4 DRAINAGE DESIGN AND CULVERT REPLACEMENT/REHABILITATION

Milestone and United have approached drainage design for the project with a focus on maintaining the existing drainage patterns for the proposed improvements while not increasing the impacts downstream.

Furthermore, our teams approach is to maximize the life remaining in the existing infrastructure, replace existing structures beyond their useful life, and add new structures as necessary to account for the additional impervious areas. We have reviewed the Technical Provisions and RID to identify the structures that require replacement.

Our drainage features for the project include the median inlets and pipes, pavement underdrains, cross culverts, roadside ditches, and detention basins. The detention basins will be coordinated with the Hamilton County Surveyor's Office and the Madison County Drainage Board.

F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.4.a ASSUMPTIONS

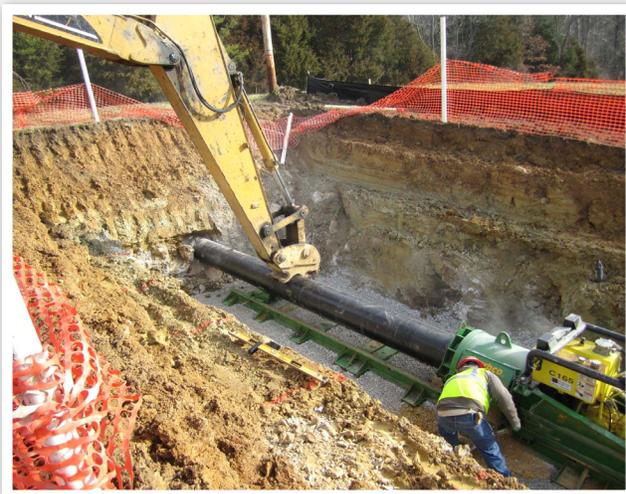
The assumptions made for the structural capacity of each culvert followed the requirements defined in the Technical Provisions Section 8. For Sections A & B, the existing culverts were to remain in-place unless additional measures were indicated in the Reference Plans. For Section C, the structural capacity was determined from the provided most recent culvert inspection and the defined improvements and hydraulic capacity evaluation.

5.2.4.b METHODS

Maintaining and improving the existing culverts drainage patterns is important to the success of the project. Our team has extensive experience with the installation of new culverts and the rehabilitation of existing culverts on interstate projects.

- ✓ Milestone's Todd Fawver, PE, presented at the Civil Engineering Professional Development Seminar at Purdue University in 2014, the construction challenges of jacking and boring new pipes and the lining for the rehabilitation of existing pipes. The presentation focused on the how to properly design to ensure safe construction. Milestone's knowledge of the means and methods will bring additional safety and thus value to IFA.

Installation of New Culverts: It is our team's intent to replace culverts with jacking and boring the pipes under the existing I-69 lanes to minimize disturbance to the maintained traffic. The pipe installation not under existing pavement will be open cut.



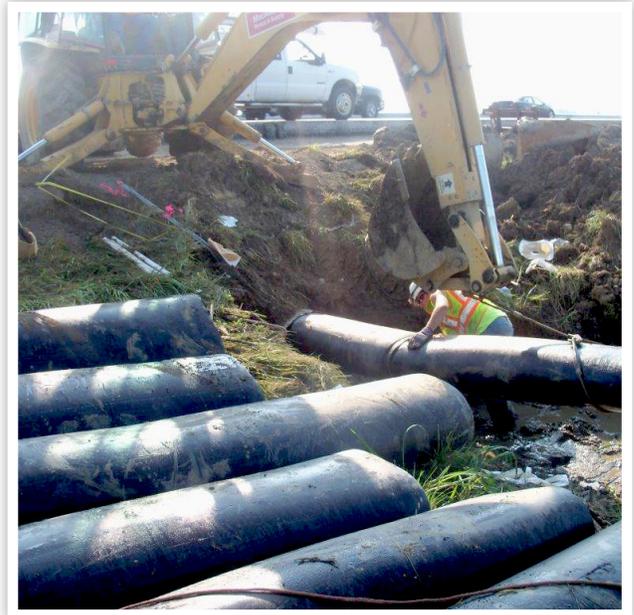
F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.4.b METHODS CONTINUED

Rehabilitation of Existing Culverts: The existing unlined culverts within the project limits will be rehabilitated through a variety of methods as identified in the Hydraulic Review approval including:

- Cured-in-place (CIPP) liner
- High Density Polyethylene (HDPE) pipes



5.2.4.c CRITERIA REQUIREMENTS

The INDOT approved culverts in the RID meet the criteria requirements for hydraulic capacity and backwater. Additional structures designed for the project limits will satisfy the criteria requirements of the Technical Provisions.



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F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.5 BRIDGE STRUCTURES, RETAINING WALLS, NOISE WALLS AND OTHER STRUCTURES

Milestone is working to integrate the widening of the existing mainline bridges to appear seamless with the existing structure to remain in place.

There are 16 bridges within the project limits, eight of which will undergo varying degrees of rehabilitation as part of this contract and the other eight will not be modified as part of this project. Three of the structures to be rehabilitated are overpass bridges at Brooks School Road, Campus Parkway and County Road 650 West. Five of the structures to be rehabilitated are on mainline I-69 over Sand Creek, Mud Creek, Thorpe Creek, State Road 13, and Fosters Branch. Figure 5.1 provides a brief description of each structure and scope of work to be performed on each.

5.2.5.a SELECTION OF MATERIALS

All of the mainline bridges will be widened to match the new cross section of I-69 and will also receive additional rehabilitation with the goal of extending their service life with a goal of minimizing future traffic disruptions for future repairs. Expansion bents will be converted to semi-integral, decks will be overlaid, scour protection will be installed, concrete will be patched, vertical clearances will be improved, and proper railing will be installed.

Overpass bridges will either have a deck replacement or receive an overlay, the abutments will be re-constructed as semi-integral. The original existing steel beams for the Campus Parkway bridge do not meet the Scope requirement for load rating and structural capacity. Instead of replacing these beams, their capacities will be increased with a retrofit detail, saving costs that can be allocated to the rest of the project. The new beams in the widened section will be designed to accommodate the dead load and pedestrian loadings from the new sidewalk.

The bridge rehabilitations which require widening will be widened with similar material, steel beams will be widened with steel and concrete superstructures will be widened with concrete.



F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.5 BRIDGE STRUCTURES, RETAINING WALLS, NOISE WALLS AND OTHER STRUCTURES CONTINUED

FIGURE 5.2.5-1 - Bridge Descriptions

Bridge Name	Structure Type	Spans	Existing Vertical Clearance (Insp Report)	Work Summary
NB & SB I69 over Sand Creek	Reinforced Concrete Slab	27' - 36' - 27'	NA	3-Span Bridge. Mill and overlay, widen to median. Convert to Semi-Integral, Piers are wall piers on single row of piles.
Brooks School Road over I69	Steel Beam	44' - 76.5' - 76.5' - 44'	16	Overpass bridge. Deck replacement/convert end bents to semi-integral.
Campus Parkway over I69	Steel Beam	46' - 79.5' - 79.5' - 46'	16'-8"	Overpass bridge. Mill and Overlay, widen existing deck. Convert end bents to semi-integral. Widen piers with single row of piles. Retrofit original steel beams to improve structural capacity.
NB & SB I69 over Mud Creek	Reinforced Concrete Slab	31.25' - 41.5' - 31.25'	NA	3-Span Bridge. Mill and overlay, widen to median. Convert to Semi-Integral, Piers are wall piers on two rows of piles.
NB & SB I69 over Thorpe Creek	Reinforced Concrete Slab	21.75' - 27.5' - 21.75'	NA	3-Span Bridge. Mill and overlay, widen to median. Convert to Semi-Integral, Piers are wall piers on single row of piles.
NB & SB I69 over State Road 13	Steel Beam	73' - 73'	14'-4"	2-Span Bridge. Mill and overlay, widen to median. Convert to Semi-Integral, Piers are column piers on spread footers. Widen with single row of piles.
County Road 650 West over I69	Steel Beam	100.25' - 100.25'	16	Overpass bridge. Mill and Overlay/convert end bents to semi-integral.
NB & SB I69 over Fosters Branch	Reinforced Concrete Slab	29.25' - 38' - 29.25'	NA	3-Span Bridge. Mill and overlay, widen to median. Convert to Semi-Integral, Piers are wall piers on spread footings. Rock line at footing elevation.



F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.5.b BRIDGE PLANS

The Preliminary Bridge Plans have been prepared in 11" x 17" plan sheets which indicate the work to be completed. The plans are included in the Appendix.

5.2.5.c RETAINING WALLS

There is one proposed retaining wall within the project limits. An MSE wall with concrete face panels will be utilized in this fill location which will allow for ease of construction. Table 5.2 indicates the location and limits of this retaining wall.

Figure 5.2.5-2 - Retaining Wall Locations

Name	From Station	To Station	Type	Length	Height	Area
A	242+85	267+00	MSE	2,415	10	15,100

5.2.5.d NOISE WALLS

There are three noise walls within the project limits which are located along the I-69 mainline in the more populated areas north of Cumberland Road, north of Brooks School Road and north of SR 38. The walls range in height from 12 feet to 28 feet. All of the sound walls are ground mounted. The noise barrier walls identified will be constructed of pre-cast concrete panels set between wide flange beam posts and pre-cast 30" wide pilasters. Table 5.3 indicates the location and limits of each noise wall.

Figure 5.2.5-3 - Noise Wall Locations

Name	From Station	To Station	Type	Length	Height	Area
B	352+80	390+90	Type III	3,810	28	79,400
C	503+07	527+47	Type III	2,440	21	42,150
D	799+71	819+26	Type III	1,955	12	20,400



F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.6 UTILITY RELOCATION AND ADJUSTMENT WORK ELEMENTS

Milestone’s plan for the execution of the I-69 Major Moves project is zero delays due to utility relocations or adjustments. The two keys to the approach are:

- The communication plan for the utilities as detailed in 5.2.6.c
- The sequence of construction as detailed in 5.2.6.b

During the utility coordination, Milestone and United will follow a modified version of the INDOT Utility Coordination Process. Utility companies are familiar with this process that has been used to improve communication between the Department and the utility companies.

5.2.6.a UTILITY CONSTRUCTION ACTIVITIES AND INTERFACE

The majority of the utility companies will perform their own adjustments and relocation activities, either self-performing or subcontracting the coordination and construction for their facilities. Milestone will coordinate with the utility companies and, when agreeable to all parties, will perform the required relocations and adjustments.

All utility work will be coordinated by the project’s Utility Coordinator. That individual will be responsible for coordinating, encouraging, and fulfilling communication between the utility owners, design/build team, and owner team of IFA and INDOT related to the project. A full description of the process to be used is described in 5.2.6.c.

5.2.6.b UTILITY ACCOMMODATIONS

Milestone has organized the order of operations to maximize the ability of utility companies to access the project in locations where adjustments are needed before road and bridge construction begins.

The initial phases of the project construction will include patching and placing the first lift of overlay along the Interstate. These activities have negligible impacts on the utilities, and the approach gives the utilities time to schedule and construct all required permanent relocations and adjustments.

The following stages of construction will include the interior widening of the interstate, the reconstruction of the Campus Parkway/Southeastern Parkway interchange, reconstruction of SR 13 and overhead bridge work. During these phases of construction, utility protection will be the focus of coordination and construction.



F. PRELIMINARY PERFORMANCE PLANS

EXHIBIT B, SECTION 5.2

5.2.6.c UTILITY PROACTIVE COORDINATION

1

The first task in the Utility Coordination will be for Milestone, with United Consulting, to schedule a meeting with IFA, INDOT, and the utility companies to review the initial coordination that has been performed and to establish the expectations for the utilities and for the design/builder team.

2

Following the initial meeting United will review any additional information that is provided by the utility companies and will investigate opportunities for avoidance of utility conflicts. These conflicts will include issues with the constructed elements and also conflicts with construction activities. Our initial investigations have determined that many utilities, whether they are underground or overhead facilities, will have impacts, even if they only require construction coordination.

3

The third task will be to set up a monthly call-in for each utility during the development of the project. The purpose of these call-ins is twofold: **1. Formalize a schedule for communication** and **2. Reinforce the expectation of progress** without the additional time required for a face-to-face meeting and requiring more attention than an email correspondence may cause.

During these call-ins the status of the project's design, utility relocation design (as needed), adjustment and relocation planning, construction schedule and any new issues will be discussed. The expected attendees shall include the project's Utility Coordinator and utility representatives. The attendees will also include representatives from the design team and construction team, and may include INDOT and IFA personnel.

4

The fourth task will be to develop reimbursement agreements between Milestone and the utility. This step will be performed concurrently with the design of the utility adjustments, relocations and/or protections.

5

The fifth task will be to verify the location, prior to installation, of the new facilities. Given the effort that will be made to ensure timely adjustment and relocation of the utility facilities, the team wants to avoid delays and issues that arise from the duplication of relocations. After relocation and adjustment activities are completed, the utilities will issue a letter acknowledging that the construction activities are completed.

6

The final step in the utility coordination is to protect the relocated facilities during the remainder of construction activities.

F. PRELIMINARY PERFORMANCE PLANS

Exhibit B, Section 5.1.2

Form L



FORM L

COMPLETION DEADLINES

IFA Last Allowable Dates:

Milestone	Deadline
Baseline Substantial Completion Deadline	November 30, 2017
Partial Acceptance Deadline	June 30, 2018
Final Acceptance Deadline	October 15, 2018

Proposal Commitment Dates (cannot exceed the above table):

Milestone	Deadline
Baseline Substantial Completion	November 30, 2017
Partial Acceptance Deadline	June 30, 2018
Final Acceptance Deadline	October 15, 2018

H. APPENDICES

Exhibit B, Section 3.2.5

Key Personnel Resumes





H. VOLUME 2 APPENDICES

EXHIBIT B, SECTION 3.2.5

3.2.5 KEY PERSONNEL RESUMES

Please refer to information provided in separate binder.

H. APPENDICES

Exhibit B, Section 5.2

Traffic Analysis of Campus Parkway





H. VOLUME 2 APPENDICES

EXHIBIT B, SECTION 5.2

5.2 TRAFFIC ANALYSIS OF CAMPUS PARKWAY

Please refer to information provided in separate binder.

H. APPENDICES

Exhibit B, Section 5.2

Pavement Design





H. VOLUME 2 APPENDICES

EXHIBIT B, SECTION 5.2

5.2 PAVEMENT DESIGN

Please refer to information provided in separate binder.

H. APPENDICES

Exhibit B, Section 5.2

Preliminary Baseline Schedule





H. VOLUME 2 APPENDICES

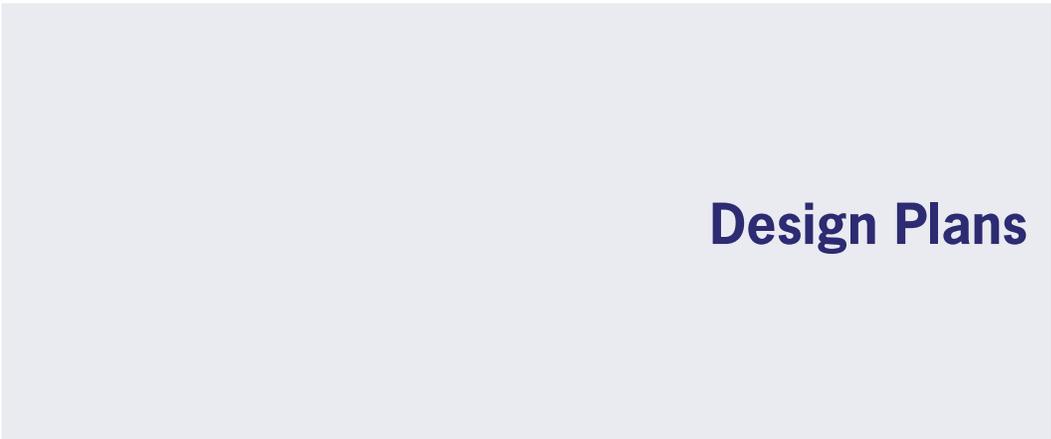
EXHIBIT B, SECTION 5.2

5.2 PRELIMINARY BASELINE SCHEDULE

Please refer to information provided in bound 11 x 17 format.

H. APPENDICES

Exhibit B, Section 5.2





H. VOLUME 2 APPENDICES

EXHIBIT B, SECTION 5.2

5.2 DESIGN PLANS

Please refer to information provided in bound 11 x 17 format.