SERVICES FOR EMCD BRIDGE

CITY OF ANN ARBOR

PROJECT MANAGEMENT AND CONSTRUCTION ENGINEERING SERVICES

RFP#: 22-77

November 14, 2022

fishbeck

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A

Professional Qualifications

A | Professional Qualifications

Firm Name | Fishbeck

Fishbeck has been providing professional civil engineering, architectural/engineering, environmental, and construction services for over **66** years. We serve governmental, educational, healthcare, commercial, industrial, and private clients. Our range of services and integrated project approach provides our clients with specifically suited, innovative designs. We are committed to delivering exceptional service, outstanding technical quality, and establishing long-term client relationships. Our design specialists are committed to providing creative, value-driven services.

fishbeck
Engineers | Architects | Scientists | Constructors

Company Type
Employee-owned Corporation

Established
1956

Total Personnel
500+

LOCATIONS
14 offices throughout Michigan, Ohio, and Indiana

Website
www.fishbeck.com

Locations | For this contract, services will derive from our Ann Arbor and Lansing locations, with support from Novi.

Ann Arbor | 2001 Commonwealth Blvd., Suite 200, Ann Arbor, MI 48105

Lansing | 5913 Executive Drive, Suite 100, Lansing, MI 48911

Novi | 39500 MacKenzie Drive, Suite 100, Novi, MI 48377

Headquarters - **Grand Rapids** | 1515 Arboretum Drive SE, Grand Rapids, MI 49546

Organization | Fishbeck is a corporation licensed to operate and practice in the State of Michigan. We are a legal entity permitted by law to sign and seal final design construction contract documents, and licensed under Michigan's professional licensing and regulation provisions of the Occupational Code (State Licensing Law), Act 299 of the Public Acts of 1980, Article 20, as amended, to practice architecture, engineering, environmental engineering, and land surveying services in the State of Michigan.

Partnering With

DLZ
ARCHITECTURE • ENGINEERING • PLANNING
SURVEYING • CONSTRUCTION SERVICES

With over 800 people in 27 offices, DLZ is one of the top consulting firms in the architectural, engineering, and surveying industry. The firm is ranked as one of the Top 150 in the U.S. and the 11th largest in the Midwestern United States. DLZ professionals work together as a team to safely deliver a wide range of project sizes and types across the country.

DLZ's engineers, architects, planners, and technical support staff are innovative and understand that every project is different. We have the experience and expertise to realize that each client's needs and wants are unique. We approach each project with this in mind and stand behind the work that we do.

SME

Founded in 1964, SME has been providing soil and material testing for over 58 years. SME's geotechnical team designs dependable, cost-effective earth retention and underpinning solutions that meet your project needs. Whether permanent or temporary, SME designs systems for varied applications including excavation shoring, landslide mitigation and permanent retaining walls. Through conventional drilling and advanced techniques, their geotechnical experts thoroughly evaluate soil and groundwater conditions on your site and assess the impact of subsurface conditions on new and existing facilities. SME uses effective ground improvement technologies and construction methods to enable economical site development and foundation design.

Project Team

Our People Make All the Difference

Our team has extensive experience with applicable engineering, traffic control, and road and bridge inspection work items and will provide the City of Ann Arbor and the public with outstanding customer service. Fishbeck will be the prime consultant, providing engineering, office technician, lead, and staff level field inspection, survey and construction as builts and project technical support as needed. **DLZ** will provide the lead personnel for project technical support, field inspection and onsite material testing. **SME** will provide shop fabrication inspection.

Location

Fishbeck will coordinate the project from our Lansing office, and will provide staff from our Ann Arbor, Novi, and Lansing offices, with Tim Platz and Michele Nitengale working out of our Grand Rapids office. DLZ will provide staff from their Melvindale office. SME will provide staff from their Eaton Rapids office. All services will be performed in Michigan.

Key Personnel

Robb Welch, PE, will serve as the project manager and resident engineer and primary point-of-contact to City of Ann Arbor Project Manager, Francisca Chan. Robb will be responsible for project oversight, coordination, and administration. He will oversee engineering and technical staff and project record management. He will coordinate and manage survey, materials testing, Inspection and utility coordination. Robb successfully worked with the City of Ann Arbor to complete the railroad berm opening project and is familiar with the City's operating procedures. His recent experience and knowledge will assist with the successful oversight on this project. Robb is an MDOT-Certified Project Engineer, allowing for a streamlined project record closeout process.

Alex Fields, PE, will serve as the assistant project engineer, Alex will assist Robb with contract administration tasks and constructability and field issues that arise. Alex has several years of experience working on bridge construction and rehabilitation projects and has experience with most of the major work operations taking place on this project. Alex provided bridge inspection services on the I-96/US-23 interchange, US-23 Flex Route, Rouge River Bridge Rehabilitation, and I-75 reconstruction from State Line to Erie Road, among others. Alex served as the assistant project engineer on the statewide rest area ADA upgrades project and is assisting as a staff engineer on the reconstruction of M-59 from Romeo Plank to east of I-94.

Carrie Hamel, PE (DLZ), Leigh Merrill, PE (DLZ), Chuck Fawcett PE, PTOE (DLZ), Dan Wiktorzak PE (DLZ), Jason Hughes PE (DLZ) and Raja Jildeh, PE will serve as technical reviewers. Our technical review team brings a breadth of experience to the project ranging from structural reviews of roadway and railroad bridges including geotechnical aspects to signal and electrical components. Carrie served as the senior bridge designer of this project and understands the project challenges and details. Dan served as the traffic signal designer for this project and will be a relied upon resource for utility coordination and signal related submittals. Jason performed geotechnical investigation and design of the micropiles for the project and will be a key resource in review of the required contractor submittal pertaining to the soil nail wall. Raja has over 36 years bridge design experience, 24 of which as an MDOT Squad Leader and Project Manager. While at Fishbeck, Raja has managed complex bridge projects including I-94 over Grand Elk Railroad, I-94 over GTW Railroad, and I-94 Advance Bridges Phase II, which included I-94 under Conrail (X02 and X03 of 82025). He also routinely provides QA/QC for bridge projects.

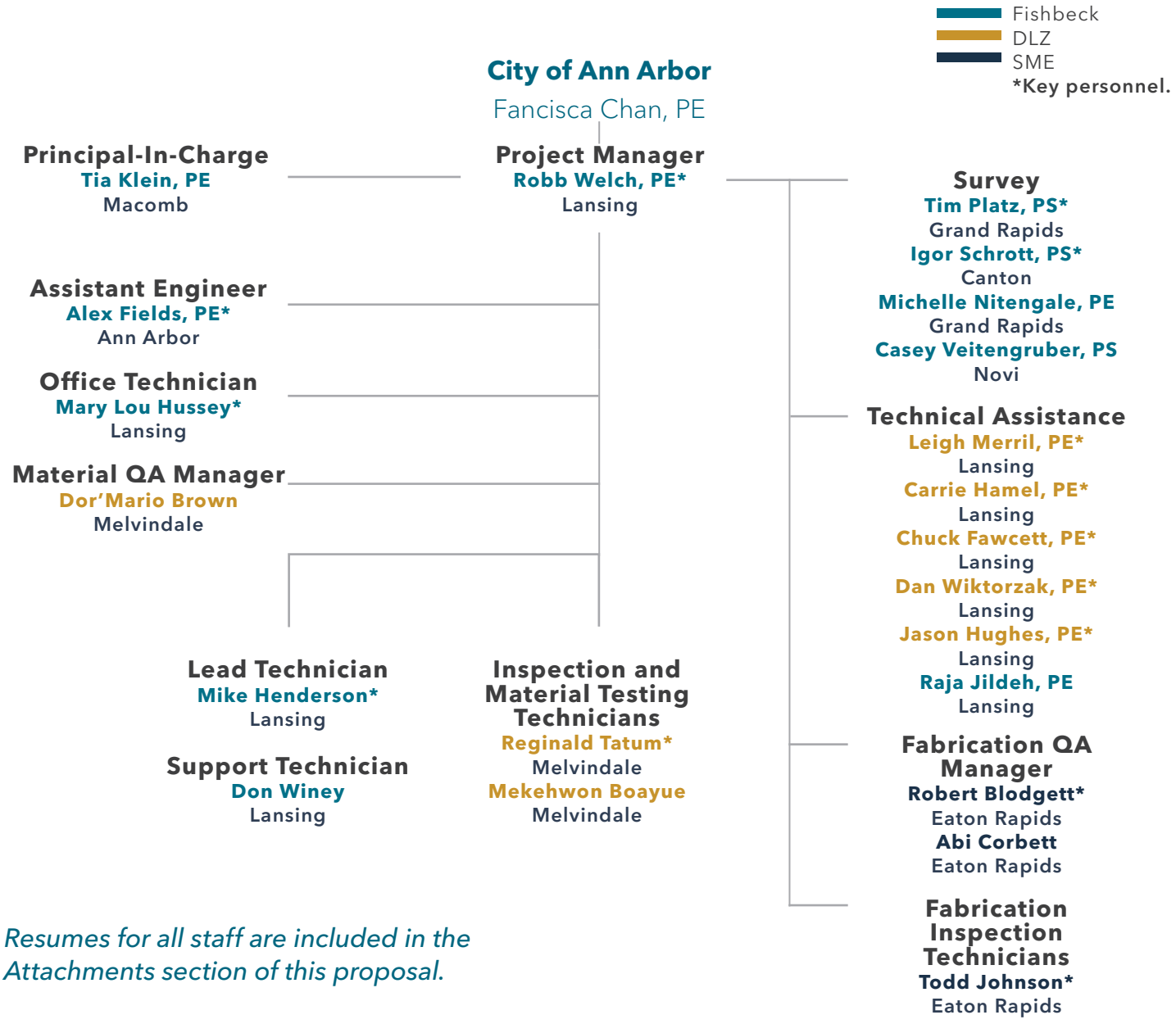
Mary Lou Hussey will serve as the office technician. She will review and process IDRs and associated attachments, review and process MSLs and materials acceptance documents, prepare pay estimates and contract modifications, and review contractor weekly employment reports and certified payrolls to ensure prevailing wage compliance. Mary Lou is thoroughly knowledgeable of all project record and documentation requirements and procedures.

Mike Henderson will serve as the lead technician. Mike has a wealth of bridge inspection experience and is technically proficient in all aspects of bridge rehabilitation and reconstruction. His recent experience as the lead inspector on the railroad berm opening project provides him with field contacts and knowledge of railroad requirements. He will provide expertise and guidance to staff technicians and oversee field utility coordination. He will review the plans and work with the engineering team, inspectors, and contractors to determine potential issues, and associated resolutions, in advance. In addition to his bridge experience, he has extensive experience with HMA and concrete paving, traffic control staging and drainage. He will also work with DLZ to ensure all required QA and QC testing reports are submitted within the timeframes required, and there are no failing test results before payment of associated items is made.

Dor'Mario Brown (DLZ) will perform Material QA/QC administration. He will be responsible for materials testing coordination, ensuring testing staff are assigned where and when needed daily to cover every operation requiring testing. **Reginald Tatum (DLZ)** will lead field testing**, with Mekehwon Boayue (DLZ) and Don Winey** as backup inspection technician and onsite material testers to provide depth of staff to meet periods of heavy workload needs. They will also provide inspection during the prescribed nighttime work periods outlined in stages 4 and 5 of the progress clause. They are experienced and certified to perform QA sampling and testing on MDOT projects including concrete, HMA, density, soils, and aggregates for road and bridge work. They have extensive bridge reconstruction and rehabilitation inspection experience, as well as HMA and concrete construction experience.

Bob Blodgett (SME) will perform as QA Manager for shop fabrication inspection. He will be assisted by **Todd Johnson (SME)**. They will provide QA review and monitoring of fabrication operations. Together, they have extensive experience in fabrication shop inspection of plate girders, sole plates, structural retrofits, weld operations, welding procedure development/testing, electro deposition, powder coating paint lines, precast concrete elements, prestressed concrete elements, and associated items that may be applicable to the project inspection requirements.

Tim Platz, PS, will be the survey project manager, he has a thorough understanding of how to resolve the types of challenges that may arise on this project. He will work with **Igor Schrott and Casey Veitengruber**, survey technicians, to verify the control provided and all grades necessary for construction. All work will be done under the supervision of a professional surveyor licensed in Michigan.



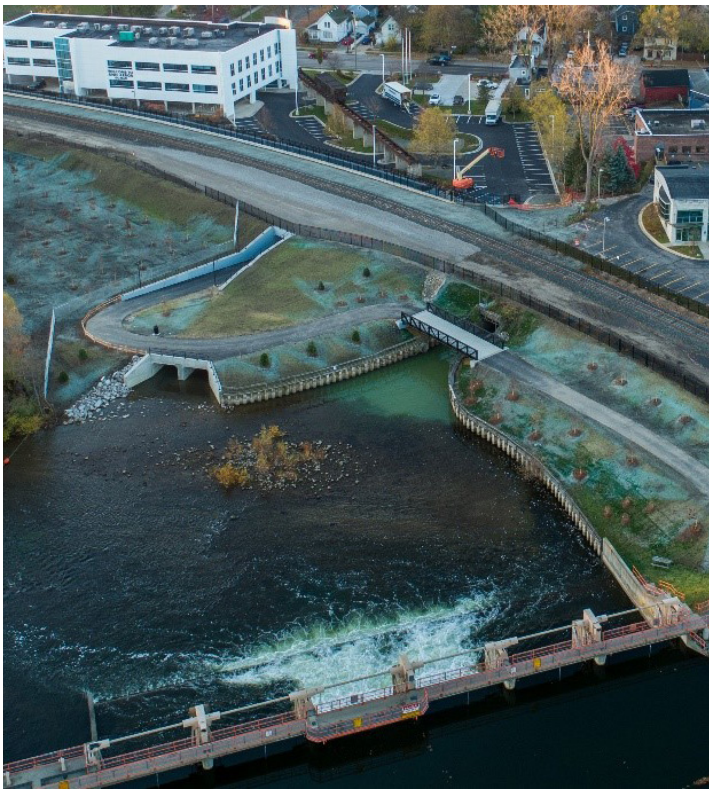
Resumes for all staff are included in the Attachments section of this proposal.

B

Past Involvement with Similar Projects

B | Past Involvement with Similar Projects

PROJECT	CLIENT / LOCATION	SERVICES PROVIDED	PROJECT COST(S)	STAFF	CLIENT REFERENCE
Railroad Berm Opening and Trail Extension	City of Ann Arbor	Project engineering, office technician, inspection, record keeping, survey and construction services, and oversight of subconsultant	$8 million	Robb Welch John Becht Mike Henderson Mary Lou Hussey Mark Mitera Chris Linsley	Brian Slizewski, PE Project Manager 301East Huron Street Ann Arbor, MI 48104 BSlizewski@a2gov.org
Huron Parkway over the Huron River Bridge Rehabilitations	City of Ann Arbor	Inspection	$774,000	Allen Laliberte Alex Fields	Francisca Chan, PE Project Manager 301 East Huron Street Ann Arbor, MI 48104 Fchan@a2gov.org
Aurelius Road Bridge Replacement over Grand Trunk Western Railroad	City of Lansing, Michigan	Project management for lead engineering and administration	$3.9 million	Robb Welch Charlie Pauls Don Winey Mary Lou Hussey	Dan Danke, PE Public Service Department Manager 124 West Michigan Avenue Lansing, MI 48933 ddanke@lansingmi.gov
MDOT West Bloomfield Trail over M-5	MDOT Oakland County, Michigan	Full construction of non-motorized pedestrian bridges	$5 million	Tom Gray Allen Laliberte Octavia Carrington Chuck Carr Phil Foster Kevin Harvey Tony Kuhtz	Gina Red-Craig Construction Project Manager 800 Vanguard Drive Pontiac, MI 48341 redg@michigan.gov
North Grand River Avenue over Grand River	City of Lansing, Michigan	Full design, survey, construction engineering, project inspection, office technician, construction staking services, subconsultant oversight for materials testing	$10.2 million	Robb Welch Mike Henderson Don Winey Adarius Cannon Aaron Hopkins Cory Stenzel Mary Lou Hussey Greg Carlson	Dan Danke, PE Public Service Department Manager 124 West Michigan Avenue Lansing, MI 48933 ddanke@lansingmi.gov
I-69 Airport Road to Francis Road Bridge Rehabilitations	MDOT, Eaton and Clinton Counties	Full construction engineering, survey, and project management	$73 million	Robb Welch John Johnson Chuck Carr Adarius Cannon Kevin Crevier Jake Flikkema Riley Arlt Matt Biek Joe Tejkl Jennifer Zitlau Kerstyn Rasiuk	Mikey Meyer, PE Construction Contracts Engineer 2700 Port Lansing Road Lansing, MI 48906 meyerm1@michigan.gov
I-75 Rehabilitation	MDOT	Project management	$6.7 million	Bryan Turczynski Jacob Paruk Sagar Patel JaVarrius Heard Jennifer Zitlau	Jeff Pitt, PE Senior Contracts Engineer 800 Vanguard Drive Pontiac, MI 48341 pittj@michigan.gov
Middle Gibraltar Road Bridge over Waterway Canal	City of Gibraltar	Design, survey, construction engineering, project inspection, office technician, construction staking, and subconsultant oversight	$2.8 million	Bryan Turczynski Jacob Paruk Allen Laliberte Mukesh Bhatt Casey Veitengruber Kerstyn Rasiuk	Michael Landis City Administrator 29450 Munro Avenue Gibraltar, MI 48173 mlandis@cityofgibraltar.net



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RAILROAD BERM OPENING AND TRAIL EXTENSION

CITY OF ANN ARBOR | ANN ARBOR, MICHIGAN

PROJECT DATA

Construction Date: March 2020
Completion Date: November 2020
Cost: $8 million

REFERENCE

Brian Slizewski, PE
734.231.6376

STAFF INVOLVED

Robb Welch
John Becht
Mike Henderson
Mary Lou Hussey
Mark Mitera
Chris Linsley

Fishbeck provided construction engineering services including project engineering, office technician, and field inspection for the installation of stormwater control and pedestrian tunnel access underneath the existing railroad berm in the City of Ann Arbor. Project details include installation of a pedestrian bridge, side-by-side large precast box culvert for stormwater control, and pedestrian access and construction of an extension to the border-to-border trail system. The hydraulic culverts provide much needed flood relief to a section of the city prone to flood events.

Our services included project engineering, office technician duties, project inspection, project record keeping, survey and construction staking services, and oversight of a subconsultant for materials testing.

The project also involved extensive coordination with MDOT Office of Rail and Amtrak on design aspects and construction impacts to facilities owned and operated by the two entities. Additional specific tasks included regular coordination with various City personnel for project schedule updates and public impacts for project specific website updates and project milestones. This project is part of MDOT Local Agencies Program and required additional coordination with MDOT oversight personnel on project changes and close out procedures.

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HURON PARKWAY OVER THE HURON RIVER BRIDGE REHABILITATION

CITY OF ANN ARBOR, MICHIGAN | WASHTENAW COUNTY, MICHIGAN

PROJECT DATA

Completion Date: September 2022
Construction Cost: $774,000

REFERENCE

Francisca Chan, PE
619.754.3392

STAFF INVOLVED

Allen Laliberte
Alex Fields

Fishbeck provided inspection services for this project involving capital preventive maintenance repairs to the Huron Parkway bridge over the Huron River. The structure is a 7-span, continuous variable depth steel girder bridge that crosses over Geddes Avenue, Norfolk Southern Railroad, Gallup Park Road, the Huron River, and the Gallup Park Pathway. The total structure is approximately 1,018 feet long, 75 feet wide, with two lanes of traffic in each direction, with two sidewalks.

The items of work included deck patching, substructure patching, galvanized coating repair, expansion joint gland replacements, tree and brush removal and treatment, sidewalk joint repair, EJD cover plate replacement, steel railing repair, and permanent pavement markings. The work was completed in three stages to allow one active lane of traffic in each direction.

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AURELIUS ROAD BRIDGE REPLACEMENT OVER THE GRAND TRUNK WESTERN RAILROAD

CITY OF LANSING | INGHAM COUNTY, MICHIGAN

PROJECT DATA
Completion Date: October 2021
Construction Cost: $3.9 million

REFERENCE
Dan Danke, PE
517.483.4461

STAFF INVOLVED
Robb Welch
Charlie Pauls
Don Winey
Mary Lou Hussey

The project involved full bridge reconstruction over a heavily traveled railway corridor with as many as 24 train movements per day. The complexity of the project included the construction of integrated abutments using mechanically stabilized earth retaining walls, extensive utility coordination, 0.81 miles of roadway reconstruction, and shared use pedestrian pathway.

The project was part of the MDOT Local Agency program and required additional coordination and communication with MDOT oversight personnel on project changes and closeout procedures.

Fishbeck provided the project manager for lead engineering and project administration roles including coordination with adjacent projects for traffic control, social media responses, extensive meeting coordination and communications. Staff performed all project oversight including roadway and bridge alignment, grading checks, traffic control compliance, and work zone set up. Lead office technician duties included certified payroll compliance and daily report checking.

fishbeck

MDOT WEST BLOOMFIELD TRAIL OVER M-5

MICHIGAN DEPARTMENT OF TRANSPORTATION | JN 120415
COMMERCE TOWNSHIP, OAKLAND COUNTY, MICHIGAN

PROJECT DATA
Completion Date: September 2018
Construction Cost: $5 million

REFERENCE
Gina Red-Craig
248.451.2423

STAFF INVOLVED
Tom Gray
Allen Laliberte
Octavia Carrington
Chuck Carr
Phil Foster
Kevin Harvey
Tony Kuhtz

Fishbeck provided full construction of two non-motorized pedestrian bridges allowing for safe connectivity to local recreational trails on either side of M-5.

P01 over M-5 is comprised of six pre-stressed, 42-inch concrete bulb tee beams, with two 117-foot spans. The beams sit on a concrete reinforced median pier and abutments. The clear-roadway width over M-5 is 17 feet 3 inches. Each abutment and pier sit on a 2.5-foot-thick reinforced concrete foundation over a 9-inch 6A aggregate base, with structural backfill placed in the area excavated for the footing. The bridge deck surface, with a clear walkway width of 14 feet, consists of 6 inches of reinforced concrete with aesthetic barrier railing and 72-inch ornamental aluminum fencing.

P02 of 63192 spans over a Consumers Energy high-pressure gas main located just west of southbound M-5 and is comprised of 5 pre-stressed 12-inch side-by-side box beams with a length of 51 feet, 2 inches. The beams are post-tensioned to 120,000 lbs at four locations specified on the plans, to secure the beams as one unit. One-inch diameter positioning dowels were used for setting the beams and the beams sit on a 3-foot wide abutment. Upon completion, like P01, the abutment was tied to a 2.5-foot-thick reinforced concrete foundation over 9 inches of 6A aggregate. The bridge deck surface consists of 6 inches of reinforced concrete with ornamental aluminum fencing and hand rails, and a clear 14-foot walkway. To help retain the existing soils along the nearby retention pond, permanent hot-dip-galvanized steel sheet piling was placed along the south side at a total depth of 22 feet.

The Fishbeck team coordinated with the contractor to ensure proper utility coordination and safety protocol of all utilities affected by the construction of the two bridges, approach ramps, bridge lighting and aesthetics, and drainage continues to allow for minimal disruption to traffic on M-5.

As a highly visual contribution to the community, in coordination with Commerce Township, who contributed $500,000, the construction of two concrete sail walls at the abutments offer a unique and aesthetically engaging addition to the path, showcasing Commerce Township's predominant beach and water tourist attractions. Additionally, wave panel systems span the north and south sides of bridge P01 including the Commerce Township logo and lettering across the southern bridge face. Decorative lighting fixtures and color changing aesthetic lighting amenities were featured in the design.

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NORTH GRAND RIVER AVENUE OVER GRAND RIVER

CITY OF LANSING | INGHAM COUNTY, MICHIGAN

PROJECT DATA

Completion Date: November 2021
Construction Cost: $10.2 million

REFERENCE

Dan Danke, PE
517.483.4461

STAFF INVOLVED

Robb Welch
Mike Henderson
Don Winey
Adarius Cannon
Aaron Hopkins
Cory Stenzel
Mary Lou Hussey
Greg Carlson

The bridge rehabilitation was part of an overall larger combined sewer overflow (CSO) control program project. The bridge is an earthen filled concrete arch that presented many unique complexities to the construction operations that Fishbeck was able to provide innovative design and construction options for the City of Lansing.

Fishbeck provided full design, survey, construction engineering, project inspection, office technician, and construction staking services, and subconsultant oversight for material testing for the Phase 1 sewer separation of CSO Regulator Areas 016 and 017. Coordination with the City's bridge program enabled the project to expand to include the rehabilitation of the North Grand River Avenue bridge over the Grand River. The overall project was constructed as a Local Agency Project through MDOT.

Project challenges related to the bridge rehabilitation over the river included a partial fascia replacement of the arches to address deteriorated concrete discovered during removal operations, extensive utility coordination and relocation operations during construction, coordination with USGA for removal and replacement of steam gauge equipment on the new bridge, and coordinating alternate access for landlocked businesses during bridge construction.

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I-69 AIRPORT ROAD TO FRANCIS ROAD BRIDGE REHABILITATIONS

MDOT | EATON AND CLINTON COUNTIES, MICHIGAN

PROJECT DATA

Completion Date: November 2023
Construction Cost: $73 million

REFERENCE

Mike Meyer, PE
Lansing TSC
517.243.9667

STAFF INVOLVED

Robb Welch
John Johnson
Chuck Carr
Adarius Cannon
Kevin Crevier
Jake Flikkema
Riley Arlt
Matt Biek
Joe Tejkl
Jennifer Zitlau
Kerstyn Rasiuk

The project involved 13 bridge rehabilitations as part of the overall reconstruction of I-69 from Airport Road to the I-96 interchange. Bridge operations included structures over the CSX Railway, Grand River Avenue, the Grand River, I-69, and I-96.

Rehabilitation work included epoxy overlay, deck joint removal and replacement, pin and hanger replacements, deck and barrier wall patching, substructure repairs, rocker realignment, beam crack injection, slope paving repair, pier cap removal and replacement, full cleaning and coating of structural steel, and installation of scour countermeasures. Complex operations of installing scour countermeasures required unique problem solving efforts in the field in conjunction with the contractor to achieve success.

Fishbeck provided full construction engineering and survey services including the project manager for lead engineering and project administration roles who were responsible for coordination with adjacent projects for traffic control, social media responses, extensive meeting coordination, and communications. Senior, lead, and inspection staff performed roadway and bridge inspection including roadway grading checks, drainage upgrades, oversight of traffic control compliance, and work zone set up. Lead office technician performed payroll compliance duties, daily report checking, pay estimate generation, and project closeout.

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I-75 REHABILITATION

MDOT | GRAND BLANC TOWNSHIP, GENESEE COUNTY, MICHIGAN

PROJECT DATA

Completion Date: October 2022
Construction Cost: $6.7 million

REFERENCE

Jeff Pitt
517.373.2090

STAFF INVOLVED

Bryan Turczynski
Jacob Paruk
Sagar Patel
JaVarrius Heard
Jennifer Zitlau

The roadway rehabilitation project consisted of drainage improvements, pavement joint repairs, and mill and resurfacing of the roadway on I-75 from Dixie Highway to Dort Highway. Drainage improvements occurred in three separate locations throughout the project to control water runoff and prevent erosion. Traffic control set up throughout the project was vital to minimizing the disturbance to the motoring public.

Fishbeck provided the project manager for lead engineering and project administration roles including coordination with adjacent projects for traffic control, meeting coordination, and communications. Senior, lead, and inspection staff performed roadway milling and paving checks, oversight of traffic control compliance, and work zone set up. Lead office technician duties included payroll compliance and daily report checking.

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MIDDLE GIBRALTAR ROAD BRIDGE OVER WATERWAY CANAL

CITY OF GIBRALTAR | WAYNE COUNTY, MICHIGAN

PROJECT DATA

Completion Date: June 2022
Construction Cost: $2.8 million

REFERENCE

Michael Landis
734.676.3900

STAFF INVOLVED

Bryan Turczynski
Jacob Paruk
Allen Laliberte
Mukesh Bhatt
Casey Veitengruber
Kerstyn Rasiuk

Fishbeck provided full design, survey, construction engineering, project inspection, office technician, construction staking, and subconsultant oversight for material testing for the reconstruction of the Middle Gibraltar Road bridge. The overall project was constructed as a Local Agency Project (LAP) through MDOT.

The bridge reconstruction consisted of demolition of the historical cantilever, archway bridge. The bridge was reconstructed with 21-inch prestressed concrete box beams, concrete deck, and concrete fascia panels. The aesthetic design of the fascia panels worked to maintain the historical status of the bridge when combined with the other bridge elements.

Project challenges related to the bridge reconstruction over the waterway included plan revisions to address the varying bedrock depth discovered during removal operations. This required varying tremie seals within the cofferdam. Utility coordination and relocation operations had to be coordinated prior to construction to allow access for the crane to operate onsite. Public relations coordination was key as the bridge was located between the residential and commercial buildings leading to continual public use of the waterway under the bridge.

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AS-NEEDED INSPECTION AND TESTING SERVICES, MDOT DETROIT TSC

DETROIT, WAYNE COUNTY, MICHIGAN

***Key Elements**: On-site Construction Inspections | FieldBook | IDRs | QA Material Testing and Reporting | ProjectWise*

DLZ was retained by MDOT Detroit TSC Office to perform as-needed inspection and QA testing services. The work included:

- Inspection of Bridge Rehabilitation and Partial Painting.
- Sampling and Testing of Portland Cement Concrete.
- Sampling and Density Testing of HMA
- Testing In-Place Density for Soils.

Projects that DLZ was assigned were:

- CS82023-JN214748, high load hit structural steel repairs, steel heat straightening, and partial painting on the Cecil Ave Bridge over I-94, Detroit MI. Performing inspections, quantity calculations, & documentation.
- CS82111-JN215027, roadway & drainage upgrades of E Jefferson Ave from Beaubien Blvd to Bates St, Detroit MI. Performing materials quality assurance, testing, & documentation.
- CS82111-JN216594, bridge repairs at Jefferson Ave & Chrysler Dr Bridges over I-375, Detroit MI. Performing materials quality assurance, testing, & documentation.

OWNER
Michigan Department of Transportation
Detroit TSC, Michigan

CONTACT
Andrea Wilcox, P.E.
wilcoxa2@michigan.gov
Imil Assaf, P.E.
assafi@michigan.gov

PROJECT COST
$248,187.00 (DLZ Fee)

COMPLETION DATE
On-going

KEY STAFF
Majid Ismail, PE – Lead Inspector & Materials QA Administrator
Keith Tanner – Construction Observer
Mekehwon Boayue – Material Tester

The services that DLZ performed included as-needed inspection, quantities computation & documentation, quality assurance testing & reporting, and MDOT forms preparation & e-submitting.

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SURVEYING • CONSTRUCTION SERVICES

CITY OF ANN ARBOR DDA CATHERINE MILLER BIKEWAY

ANN ARBOR, MI; DOWNTOWN DEVELOPMENT AUTHORITY

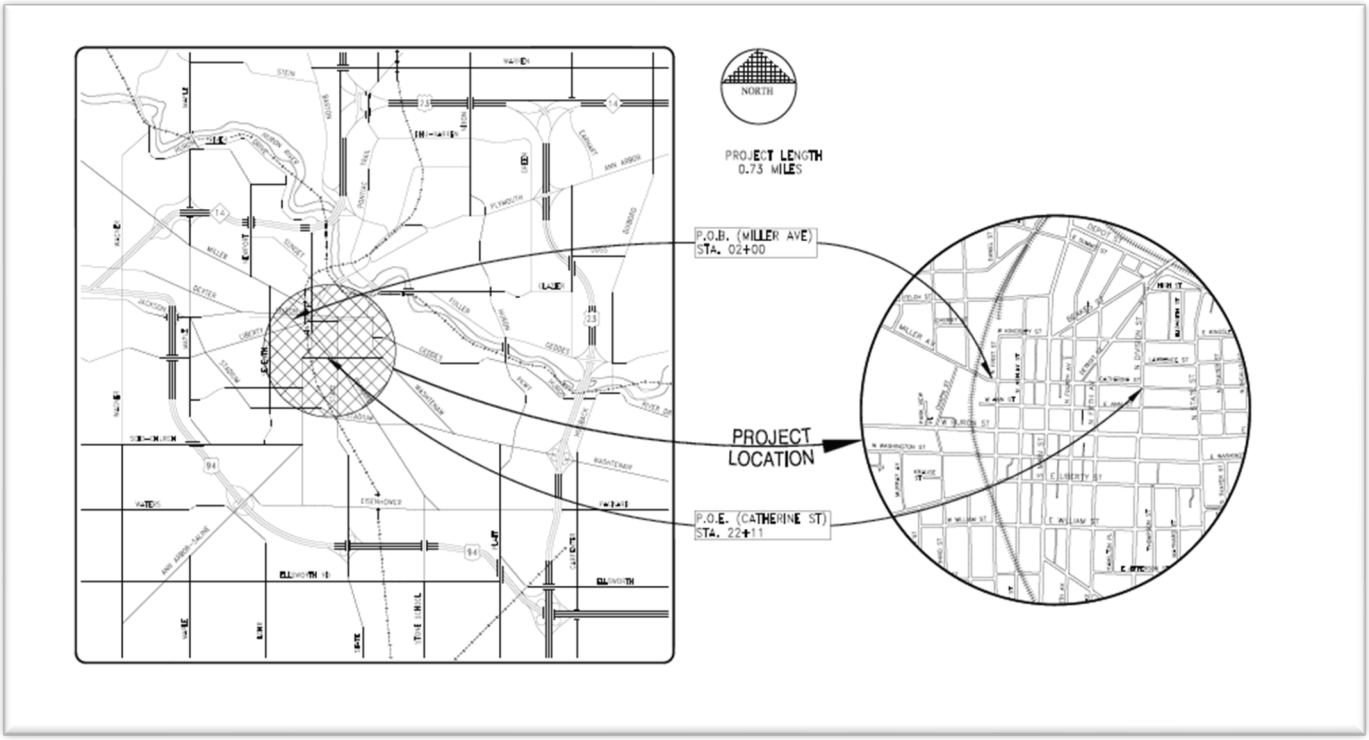
Perform various testing services for the City of Ann Arbor including in-place density testing on granular fill and dense-graded aggregate bases; fresh concrete testing during curb restorations, sidewalk restoration/construction, new pavement; asphalt concrete pavement in-place density and sampling on Miller/Catherine St from First St to Division St in downtown Ann Arbor approximately 0.73 miles. The project included water main installation, roadway pavements, sidewalk, & bikeway construction.

OWNER
City of Ann Arbor, Mi; DDA

CONTACT
Elizabeth Rolla
erolla@a2dda.org

PROJECT COST
$34,800.00 (base bid)

COMPLETION DATE
Fall 2022



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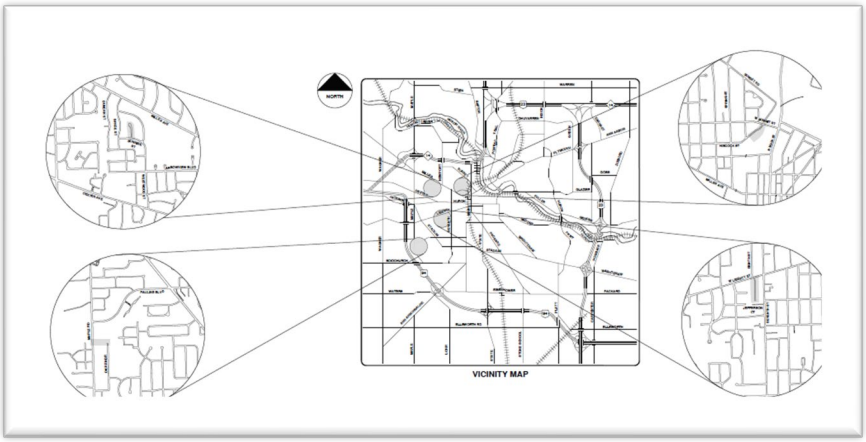
CITY OF ANN ARBOR MISCELANEOUS UTILITIES 2022

ANN ARBOR, MI; MULTIPLE LOCAL STREETS

Perform various testing services for the City of Ann Arbor including in-place density testing on granular fill and dense-graded aggregate bases; fresh concrete testing during curb restorations, sidewalk restoration/construction, new pavement; asphalt concrete pavement in-place density and sampling for multiple local street utility work:



OWNER
City of Ann Arbor, Mi

CONTACT
Brian Slizewski
bslizewski@a2gov.org

PROJECT COST
$47,745.00 (base bid)

COMPLETION DATE
Fall 2022
(Spring 2023)

- Sunrise Court: Observe approximately 400 feet of water main replacement, in-place density testing performed as filled while access was maintained to local residents as much as possible. Complete.

- Eighth Street: Observe approximately 750 feet of water main replacement, in place density testing performed as filled while access was maintained to local residents as much as possible. Turnaround constructed for commercial trucks, fresh concrete testing to restore curbs, approaches, sidewalks as needed as well as new pavement at turnaround. Observed Asphalt Concrete Pavement for trafficked street restoration. Complete.



- Dicken Drive: Observed Installation of approximately 400 feet of new water main in natural park area with in-place density testing performed as filled. Fresh concrete testing to restore S Maple Rd and construction of new sidewalk with Asphalt Concrete Pavements.



- Hiscock Street: In-place density testing of backfill for approximately 280 feet of storm sewer rerouting / replacement, and pavement restoration to be scheduled as well as approximately 250 feet of new sidewalk. Ongoing.

C

Proposed Work Plan

C | Proposed Work Plan

Project Summary

Fishbeck is excited to provide the following proposal for full time project management and construction engineering services for the rehabilitation of the East Medical Center Drive Bridge as described in the City's RFP-22-77 and addendums 1 and 2. Fishbeck has assembled an experienced and diverse team to provide the requested services for the city. We pride ourselves on our ability to work collaboratively, economically, and effectively on projects to provide our clients with excellent service.

The project is located within the city of Ann Arbor and includes the rehabilitation and widening of East Medical Center Bridge over the Norfolk Southern Railroad. Significant project elements include expansion of existing abutments and piers, salvage and rehabilitate existing beams, new steel beams, new retaining walls, temporary and permanent signals, ADA sidewalk upgrades and expansion, HMA approach paving, utility coordination and upgrades, railroad coordination and vehicular and pedestrian traffic control during prescribed staged construction operations.

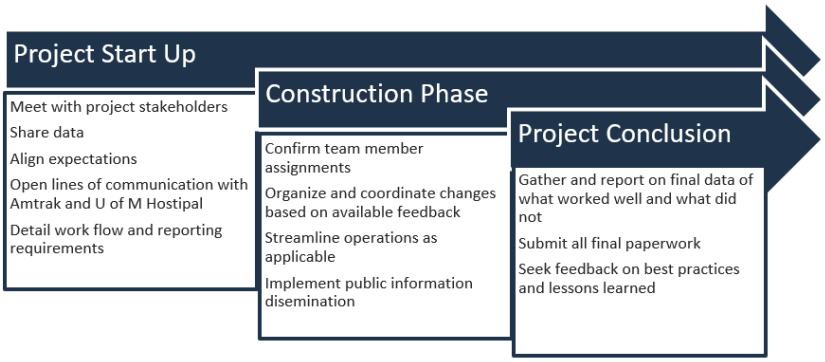
Project Management Tasks

Stakeholder Coordination

Communication and engagement with impacted project stakeholders will be extremely important aspects to this project's success. Interaction with stakeholders that will use the finished bridge and/or be impacted by construction, will be a top priority by our team heading into and throughout construction. These stakeholders include the University of Michigan Hospital, Amtrak, City of Ann Arbor emergency services and first responders, area businesses and property owners such as DTE Energy and various apartment complexes on Maiden Lane and others within the influence area of the construction who will be impacted by the traffic control and construction staging areas adjacent to or within their properties.

Project engineer, Robb Welch, understands the impact this construction project will have on the University of Michigan Hospital and the daily functioning and access of the medical center complex. He will be in communication with the University of Michigan Hospital construction representatives Tom Walterhouse (Construction), Sven Sawin (Planning), Jerry Shulte (Construction), and Kevin McLaughlin (ITS) to ensure that communication of project staging and impacts are taking place. He will confirm with them that expectations are being met and any needed adjustments are occurring as the project develops. He along with assistant engineer, Alex Fields will keep the hospital and other impacted stakeholders informed of upcoming work that will affect them, including lane closures, side street closures, driveway, curb, and sidewalk removals. This is especially important for the Hospital so they can plan and provide advance notice of traffic impacts to patients and staff arriving to the complex. It also affords the Hospital the opportunity to notify our team of any potential accommodations we can make to help lessen the impact to their operations. Project updates will also include work progress, description of activities, and upcoming traffic control changes. Alex will distribute emails and be available via phone to take stakeholder calls. He will work with Robb to develop solutions. He will respond to concerns and keep a log of issues and their resolutions. He will also reach out to stakeholders to determine if there are any special needs or events that may be impacted.

The work flow chart within details specific steps Robb and the engineering team will implement to facilitate communication and collaboration with the City's project management team and designated high impact project stakeholders to ensure our team fully executes the City's vision for the project throughout all our services:



Robb has preestablished relationships with many stakeholders within the corridor from serving as the project manager and resident engineer on the recent City of Ann Arbor construction of the railroad berm opening project on Depot Street. He has direct previous experience working with Brian Slizewski and city representatives in providing public relations information on project updates, facilitating coordination with the local and state stakeholder that were affected, including the University of Michigan Hospital, Amtrack, MDOT and City services.

Robb and our team will use previously approved methods, such as development of an email list for regular project communications and establish an initial stakeholder database. It will include all appropriate City staff, first responders, University of Michigan contacts, Amtrak, business, and property owners anticipated to be impacted, and appropriate community groups, organizations, and individuals who have expressed an interest in staying informed and connected. Pedestrians impacted by the Americans with Disabilities Act (ADA) will also be engaged. Specific efforts will be made to identify, contact, and involve existing and potential travelers along the corridor.

Email updates will include notifications of upcoming traffic pattern changes and related impacts. Robb will facilitate a first responder and hospital representatives meeting prior to work starting where coordination and preferred methods of communication will be discussed, including how best to keep first responders updated on available access points during construction activities. On the railroad berm project, an ongoing local stakeholder meeting was established to provide details and updates to the business community most affected by the ongoing project. A similar effort can be used if needed on this project.

Robb and assistant engineer Alex Fields, will also be available by phone and email to answer questions or respond to concerns, and a log of issues and their resolution will be kept either by spreadsheet or as part of the anticipated City of Ann Arbor webpage developed for the construction project.

Throughout the project Robb and Alex will:

- Provide project updates and anticipated impacts to stakeholders, project photos, design plans, renderings etc., to the City's website.
- Organize, lead, and attend the preconstruction and progress meetings.
- Review contractor submittals.
- Advise the City and act as the City's professional representative on the project, as authorized.
- Observe work progress onsite and consult with the City, team staff, and contractor concerning issues or progress with the work.
- Discuss key work components with inspection staff daily and manage all field operations.
- Confirm the sources of materials incorporated into the project are fully documented including verification of compliance with Federal Buy America requirements.
- Ensure all staff are monitoring SESC measures and traffic control daily.
- Ensure all materials testing equipment is calibrated in accordance with project requirements.
- Ensure all IDRs and materials testing reports are completed, checked, and filed in a timely manner.
- Correctly interpret contract documents and evaluate and make recommendations on all potential changes to the project.
- Complete a final inspection of the completed construction work and provide written recommendations concerning final payment, including a list of items, if any, to be completed prior to project final acceptance.

Railroad Coordination

Project specifications include several provisions related to railroad coordination and required work operations and protective measures within the MDOT Railroad right-of-way (ROW) that also incorporates Norfolk Southern underground rights and Amtrak operational rights.

A few of these provisions and applicable action items are:

Track Monitoring
- Ensure stability of tracks during construction operations
- Uses survey methods fo real time collection of data
- Prescribed tolerance for allowalbe movement
- Requires a submittal for Amtrak review

Rail Traffic Protection
- Procedures for contractor to follow when working in Amtrak ROW
- Requires a pre-entry meeting
- Details for track outages and definitons of fouling the track
- Details restrictions on the use of the vibratory hammers adjacent to tracks

Amtrak Review
- Procedures for approval of erection, demolition, and crane hoisting operations
- Details on submittal requirements
- Requirements for rail protection during demolition operations
- Requirements for temporary sheeting and shoring

Our project team is familiar with the required safety training certification class. Prior to field work starting Robb will confirm all project personnel have obtained this certification required for access to the railroad property.

During the recently completed City of Ann Arbor project constructing the railroad berm opening on Depot St., Robb successfully coordinated with Will Simmons, Amtrak Assistant Division Engineer of Track and Structures, Joe Shacter, Amtrak Senior Manager of State Corridors the Contractor, MDOT Office Rail and Amtrack central office review personnel for track monitoring and shoring needs. There were many discussions on lead time required for Amtrak review of submittals. Addendum 2 clarifies that Amtrak has received preliminary plans and are currently reviewing the details for the sheet piling. This will greatly increase the likelihood of the eventual Contractor to start work operations within the time frame needed to complete the project within the allotted schedule. Railroad review timelines have significant potential for delays on this project if Amtrak has requested revisions and or the Contractor is not timely with required submittals and or requires several rounds of submittals to gain approval. Our construction engineering team will be proactive and use the lessons learned from the previous project to hopefully resolve and mitigate any potential issues in Amtrack's review of work operations pertaining to installing steel sheeting around piers, abutments and the retaining wall along the north side of the tracks. Our team is well positioned to address all railroad coordination activities. Robb will lead efforts to ensure:

- Early coordination occurs with the contractor, railroads, and City of Ann Arbor to ensure project expectations, goals, and outcomes are properly defined, potential risks can be identified, and mitigation strategies developed.
- Railroad-specific contractual requirements are clearly defined to the contractor.
- The railroad's review and approval timelines are correctly defined in the contractor's CPM schedule.
- Contractor and railroad communication is constructively facilitated to quickly resolve any issues that arise in the field during construction.

Utility Coordination

There are numerous utilities with proposed removal and relocations detailed on the plans including University of Michigan telecommunications and ITS facilities, City of Ann Arbor and University of Michigan streetlights. Additional existing utilities with the potential to negatively affect the project include DTE electric, AT&T and Level 3 Fiber optic lines.

Utility specific work operations include proposed conduits inside the new beam bays for AT&T, University of Michigan ITS and the City of Ann Arbor traffic signals. Additional new conduits in the proposed sidewalk will be installed for city street lighting and the University of Michigan hospital sign. Kevin McLaughlin will be engaged on all University of Michigan ITS work elements to confirm this critical infrastructure for the Hospital is maintained and kept operational throughout the construction project.

We will review MISS DIG stakes when marking starts, to determine potential conflicts so the contractor can begin exploratory excavations as soon as possible. We will especially look for areas where storm sewer, structures, or signals are being replaced at a new alignment or elevation or being added. During exploratory excavation, the inspector will use a GPS rover to capture position

and elevation of exposed utilities for use in determining and resolving conflicts, and we can include the information in as-builts or an electronic geodatabase if desired. Should the need for plan changes or utility relocation be identified, Alex will work with Francisca and coordinate with the designer and/or utilities.

It is noted in the MOT special provision during stage 2 work tasks, that AT&T has a 6-week work operation that the contractor must make allowance for them to complete conduit connections on the west side of East Medical Center Drive. This opens the possibility that the utilities available schedule for work does not match with the contactor's schedule. Our engineering team will engage with the contractor and utility as soon as possible to coordinate schedules for this operation.

Prior to start of construction our team will conduct a utility meeting as needed to facilitate any necessary coordination with AT&T and all other impacted utilities. Robb and Alex will thoroughly review the plans and utility conflicts developed by the designer to determine locations for vertical exploratory investigations (VEIs) and work with the contractor, so they are performed at project start. This will allow time for design changes to mitigate conflicts where feasible and avoid potential costs and delays. Utility conflicts can greatly impact both project schedule and cost, therefore resolving any potential issues in advance will be a top priority. Should plan changes or adjustments be required they will be coordinated through Francisca. In addition, lead technician Mike Henderson will coordinate with applicable utility owners regarding the proposed schedule of work in their vicinity in case the utility company requires field presence during work operations around their facilities.

Schedule and Cost

Fishbeck understand the construction of this project will be on an expedited schedule. Provided project plans detail the expected award of the construction project on March 1, 2023. We anticipate construction work will start in mid- March or as weather allows. The progress clause indicates that December 1, 2023, is seasonal open to traffic completion date for stages 1 through 4. Stage 5 encompassing the epoxy overlay and final restoration must be complete by July 1, 2024.

Based on this anticipated construction schedule we have assumed 37 weeks of active construction in 2023 and 8 weeks in 2024 for developing an estimate of cost.

Robb will review the contractor's progress weekly and make schedule review a priority at each progress meeting. He will promptly review and evaluate any extension of time requests or schedule-related delay claims and provide recommendations to Francisca. Assisted by Alex he will promptly process and track all contractor submittals including shop drawings and Requests for Information, ensuring submittals are disseminated to all necessary parties for review and that the review process is kept moving, including any needed contractor corrections and resubmittals. Atypical long lead times on steel fabrication are currently impacting the construction industry and with the anticipated March award date, timely processing of shop drawings for the proposed W27 rolled steel beam members will be critical to ensure the project completion date is met. Robb will work with the contractor and the design team technical reviewers immediately after award to facilitate timely submittal, review, and correction of shop drawings as needed so fabrication can begin as soon as possible.

Shop drawing submittals will be expedited to reviewers with emphasis on timely turnaround for comments and or approvals to assist in maintaining the tight construction timeframes.

Robb will also continuously monitor the project budget. He will work with office technician Mary Lou Hussey to balance items as appropriate throughout the project. This will allow us to maintain an up-to-date estimate of project cost throughout the duration of construction that is as accurate as possible. Robb will notify Francisca immediately of any identified potential for extras or overruns.

Technical Support and Coordination Tasks

Our technical assistance team includes the DLZ design project manager, lead bridge designer, Geotechnical lead designer, traffic, and signal design members. They will utilize their familiarity with project and stakeholders gained during the development to assist in the transition to the construction team. The team members will review contractor submittals for conformance to project requirements and specifications assist, in interpretation of plan details, and serve as a resource for the construction project management members.

Our technical assistance team will utilize a spreadsheet to track the progress of each required submittal. Proactively tracking submittals will be crucial to ensuring the submittal process progresses in the timeframe needed to meet the project schedule. The spreadsheet will be shared with all pertinent parties and discussed at each progress meeting to ensure all aspects of the specialized work items are monitored and all reviews and revisions are performed in a timely manner. Due to potentially long lead times on material deliveries such as beams and railroad submittals, constant monitoring of the status of submittals will be key to maintaining

the projects schedule. Robb will ensure constant communication is maintained and the concerns of all parties are addressed early to avoid delays in the approval of shop drawings for the time sensitive structural, geotechnical and railroad elements of the project. Based on a review of the preliminary plans, the contractor will be responsible for several submittals pertaining to various project features. These include, but are not limited to:

- Shop drawings for Railroad track monitoring and protection measures.
- Shop drawings for Railroad review of bridge erection and demolition procedures.
- Shop drawings for Micropiles.
- Shop drawings for the slope nail installation.
- Shop drawings for various signal, electrical components, hand holes, conduit, and streetlights.
- Shop drawings for dewatering operations.
- Job Mix Formulas (JMF) for concrete and HMA.

Field Inspection Tasks

Maintenance of Traffic

Our team will perform daily monitoring of hospital access and condition of temporary maintenance drives, which will be critical for maintaining operations to the Hospital complex.

Our team will ensure any unanticipated construction issues are mitigated quickly to avoid delays that may impact local stakeholders. We will communicate project updates and potential impacts to project stakeholders daily, via the project website and other communication methods.

Alex and proposed lead inspection technician, Mike Henderson, will monitor traffic control setup prior to work start and throughout construction. They will confirm signs are properly sequenced and placed with correct taper lengths and buffer zone distances. They will ensure arrow panels, signs, and channelizing devices are placed to allow full visibility to oncoming traffic. Mike and assisting technicians will monitor the site daily to ensure all devices are clean and in good, working condition, and the contractor is operating in compliance with the approved work zone traffic control plan, Part 6 of the Michigan Manual of Uniform Traffic Control Devices, and all contract Maintenance of Traffic documents.

Our team is experienced with projects that involve coordination of work activities on and within railroad facilities. Recent projects include full construction engineering services for MDOT for structure rehabilitation and concrete surface coating, and reconstruction of adjacent roadway pavements for I-69 EB and I-69 WB over the CSX Railroad in Eaton County, and removal of an existing railroad crossing on M-5 at Maple Road in Oakland County.

The following page represents our anticipated stages of the Work Plan.

STAGE 1: FULLER ROAD CROSSOVER WIDENING AND EAST MEDICAL CENTER DRIVE WIDENING

TRAFFIC: EAST MEDICAL CENTER DRIVE

- Close WB lane and maintain both a through and turn lane between W. Medical Center Dr. and Nicholas Dr.

TRAFFIC: WEST MEDICAL CENTER DRIVE

- Close outside NB lane and maintain 1 through lane in each direction at E. Medical Center Dr./W. Medical Center Dr. intersection.

TRAFFIC: FULLER ROAD

- Maintain two through lanes in each direction between 7 a.m. to 9 a.m., and 3:30 to 6 p.m.
- During work directly adjacent to WB Fuller Rd., close 1 lane at a time for maximum of 48 hours.
- Maintain access from EB Fuller Rd. to Fuller Park crossover, and Fuller Park driveway.

PEDESTRIAN AND BICYCLISTS

- Maintain all existing sidewalks/paths, and sidewalk ra.m.ps excluding NE quadrant of E. Medical Center Dr./W. Medical Center Dr. intersection.

STAGE 2: EAST MEDICAL CENTER DRIVE BRIDGE AND ROAD CONSTRUCTION (WEST SIDE)

TRAFFIC: EAST MEDICAL CENTER DRIVE

- Close outside WB lane and maintain one through lane in each direction, and center turn lane between W. Medical Center Dr. and Nicholas Dr.
- Maintain one lane in each direction between W. Medical Center Dr. and Fuller Rd. on east side of existing bridge.
- Detour NB left turn lane on E. Medical Center Dr. to WB Fuller Rd. to the widened crossover on Fuller Rd., east of the intersection.

TRAFFIC: WEST MEDICAL CENTER DRIVE

- Close existing SB lane and maintain 1 through lane in each direction at the E. Medical Center Dr./W. Medical Center Dr. intersection.

TRAFFIC: MAIDEN LANE

- Close existing SB lane and maintain one through lane in each direction at the E. Medical Center Dr./W. Medical Center Dr. intersection.

PEDESTRIAN AND BICYCLISTS

- Maintain all existing sidewalks/paths and sidewalk ra.m.ps except the west side of E. Medical Center Dr. between W. Medical Center Dr. and Fuller Rd.
- Detour to east side of E. Medical Center Dr.

STAGE 3: EAST MEDICAL CENTER DRIVE BRIDGE AND ROAD CONSTRUCTION (EAST SIDE)

TRAFFIC: EAST MEDICAL CENTER DRIVE

- Close outside WB lane and maintain one through lane in each direction and center turn lane between W. Medical Center Dr. and Nicholas Dr. between W. Medical Center Dr. and Fuller Rd.
- Maintain 1 lane in each direction to west side of existing bridge.
- Detour NB left turn lane on E. Medical Center Dr. to WB Fuller Rd. to the widened crossover on Fuller Rd., east of the intersection.

TRAFFIC: WEST MEDICAL CENTER DRIVE

- Maintain all lanes.

TRAFFIC: MAIDEN LANE

- Close SB left turn lane at Fuller Rd./E. Medical Center Dr./ Maiden Ln. intersection and detour SB Maiden Ln. to EB Fuller Rd. left turn.

TRAFFIC: MAIDEN LANE

- Close SB left turn lane at Fuller Rd./E. Medical Center Dr./ Maiden Ln. intersection and detour SB Maiden Ln. to EB Fuller Rd. left turn.

PEDESTRIAN AND BICYCLISTS

- Maintain all existing sidewalks/paths and sidewalk ra.m.ps except east side of E. Medical Center Dr. between W. Medical Center Dr. and Fuller Rd.

STAGE 4: EAST MEDICAL CENTER DRIVE BRIDGE AND ROAD CONSTRUCTION (WEST SIDE)

TRAFFIC: EAST MEDICAL CENTER DRIVE

- Maintain one lane each direction using traffic regulator control lane closures and lane shifts between 7 p.m. to 6 a.m. Maintain all lanes remainder of day.

TRAFFIC: WEST MEDICAL CENTER DRIVE

- Maintain one bidirectional lane using traffic regulator control, lane closures, and lane shifts between 7 p.m. and 6 a.m. Maintain all lanes remainder of day.

TRAFFIC: ALL LOCATIONS

- All daytime traffic controls in place and active by 6 a.m.
- Night work: contractor must submit lane-by-lane MOT plan to City 30 working days in advance of beginning cold milling. Plans to include drawings, traffic regulator locations, temporary signing, barricades, ad channelization device locations.

PEDESTRIAN AND BICYCLISTS

- Maintain all existing sidewalks/paths and sidewalk ra.m.ps between 6 a.m. and 7 p.m.
- Detour as required using traffic regulators between 7 p.m. and 6 a.m. as directed by engineer.

STAGE 5: EAST MEDICAL CENTER DRIVE EPOXY OVERLAY, PAVEMENT MARKINGS ON THE BRIDGE, AND RESTORATION

TRAFFIC: EAST MEDICAL CENTER DRIVE

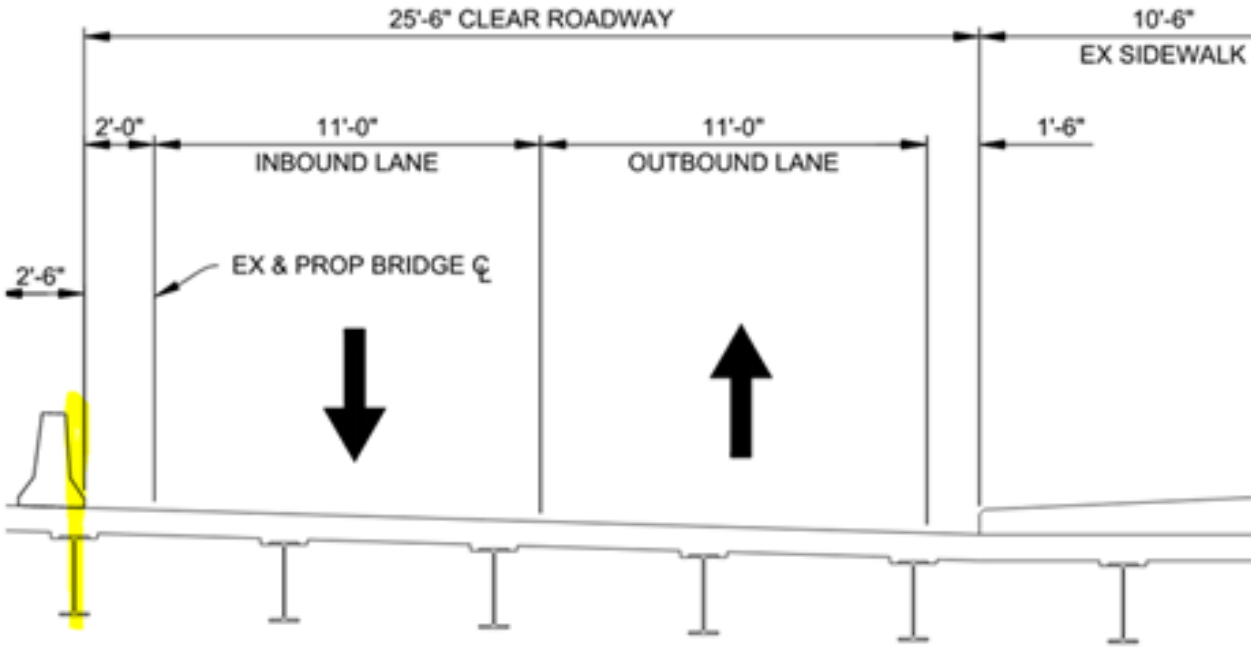
- Maintain one lane in each direction using traffic regulator control lane closures and lane shifts between 7 p.m. and 6 a.m.. Maintain all lanes remainder of day.
- All traffic controls for daytime traffic must be in place and active by 6 a.m.
- Night work: contractor must submit a lane-by-lane MOT plan to the City 30 working days in advance of beginning epoxy overlay. Plans to include drawings, traffic regulator locations, temporary signing, barricades, and channelization device locations.

PEDESTRIAN AND BICYCLISTS

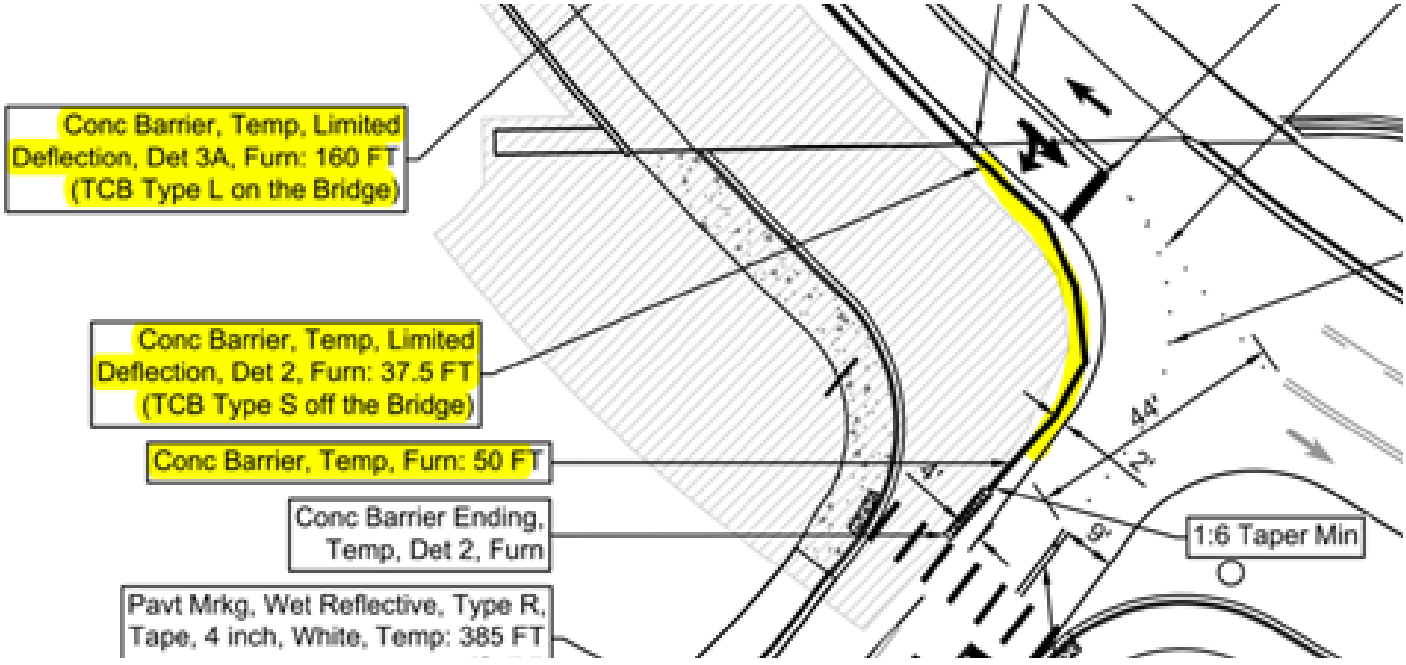
- Maintain all existing sidewalks/paths and sidewalk ra.m.ps.

A review of the project plans and documents noted the following MOT constructability issues that may need to be addressed with the eventual contractor to work through potential field issues.

Limited deflection barrier wall is called to be installed in both stage 2 and 3. In stage 2 it appears that there is only six inches from the back of wall to the removed deck section which will require the use of MDOT Standard Plan R-53-A detail 3A. This standard plan entails the installation of an anchor through the toe of the temporary wall and through the bridge deck for limited deflection temporary barrier wall applications. During review of the plans it was noted the bridge cross section details indicate that the toe of the barrier wall is over an existing beam during this stage of construction. This will not allow for the standard installation of the temporary wall anchor through the bottom of the deck. This will need to be verified and if this condition is correct, we would suggest adjusting the shy distance by one foot to allow the toe of the barrier wall to be inside the bridge beam and allow the use of detail 1, the stiffened box beam method.



The stage 2 traffic plans detail the installation of temporary concrete barrier wall around the corner of E. Medical Center and W. Medical Center as depicted below. The use of 10-foot barrier wall sections may not be able to create this tight radius, and if not, alternatives will need to be developed.



Temporary Pedestrian Facilities and Sidewalks

The contractor will be required to maintain pedestrian access throughout the project duration, as detailed in the final maintaining traffic plans and specifications.

Ensuring all sidewalk ramp and shared-use path work meets ADA requirements will require close inspection, and likely field adjustments, due to the limited ROW and existing adjacent features such as rail lines, buildings, and utility poles. Proposed project plans detail pedestrian detours during active construction operations. Detours for the various stages of construction utilize a combination of temporary sidewalks and existing sidewalks and ramps that are called to be maintained on the respective side of the bridge not under active construction. Our team is well-versed with ADA requirements and experienced in developing field solutions to meet these requirements amid complex existing conditions. We will field verify all sidewalk is ADA compliant, including maximum cross and running slopes and correct placement of detectable warning surfaces, pushbuttons, and level landings. During our review of the project plans and specifications, it was noted that the University of Michigan does not allow the use of type D ramps to be installed. Our team will ensure this restriction is adhered to during construction operations.

Bus Stop M319 of the University of Michigan Logistics, Transportation & Parking bussing routes and the U-M Cancer Center stop for the Ann Arbor Area Transportation Authority (AAATA) The Ride Bus Route 63 is located just southeast of the existing bridge. The M319 stop is included in the Commuter South, Commuter North, Med Express, Wall Street, North-East Shuttle, Crisler Express, and Glacier Express bussing routes. The M319 bus stop is to be temporarily relocated in front of Lot M31, just east of the existing bus stop. Fishbeck understands the importance of maintaining bus access to pedestrians and hospital staff/visitors and will coordinate with the University of Michigan Logistics, Transportation & Parking department, and the AAATA prior to any changes to bus stop location. In addition, these departments will be included on the project stakeholder list and as such will receive regular updates regarding project status, staging, and traffic configuration changes.

Bridge Rehabilitation

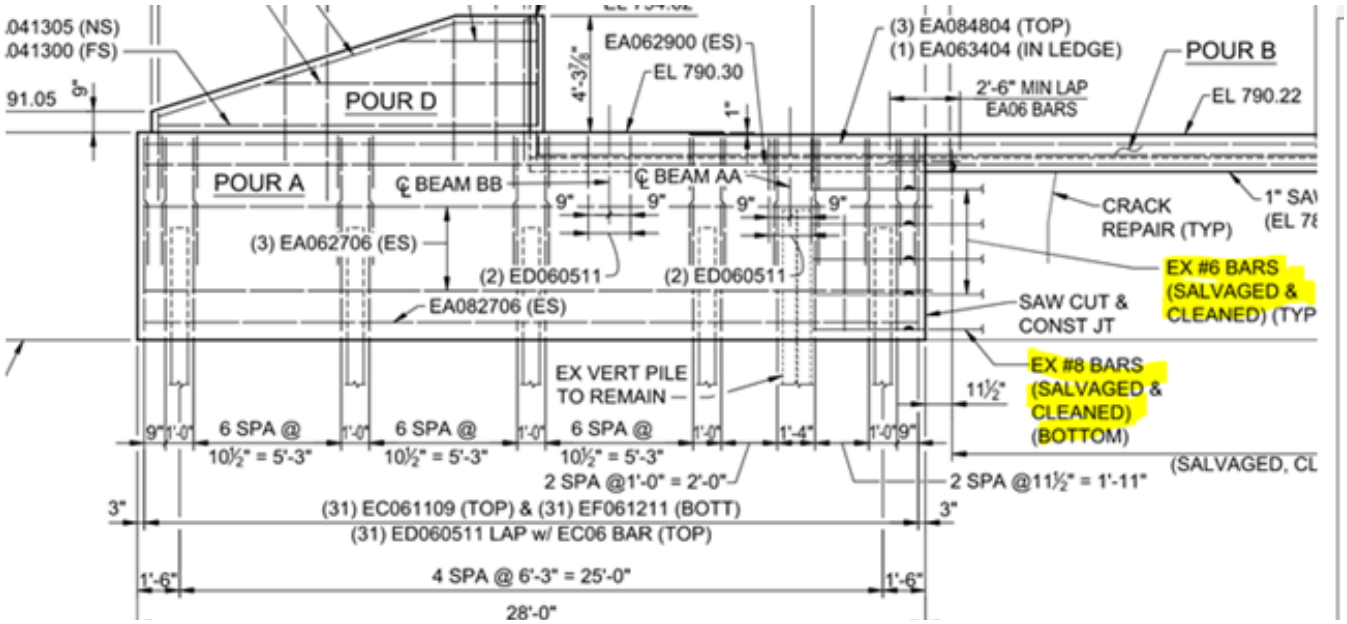
Substructure

Micropiles are called to be installed in the widened abutments and piers. Four each at 7-inch diameter micropile will be installed at each footing extension while five each will be installed at the abutment extensions, three of which will be installed with a 3-on-1 batter. A verification load test will be performed and accepted by the Engineer before any production piles are installed. The verification load test will include installing a micropile at a location chosen by the contractor and approved by the Engineer, as well as reaction piles. Once the piles are installed, the test pile will be incrementally loaded up to 0.70Rn (105 kip) and held for 10 minutes, if the vertical displacement during this time exceeds 0.04 inches, the test will be extended an additional 50 minutes. The verification test will be accepted if it meets the three requirements as listed in the Special Provision for Type B Micropile Construction, Section B.2. Once production piles are installed, proof testing will be performed on one pile per substructure unit (four total).

In addition to the abutment and pier extensions, the existing pier caps and portions of the abutments will be replaced. The pier caps will be removed in their entirety while abutment A will be sawcut at an elevation of 796.69 and abutment B at 788.90, approximately

1 foot below the existing highest bolster. The existing curved sections of the abutment/slopewall on the west side of the bridge will be removed in their entirety to make way for the abutment extension, which will be supported by the proposed micropiles. Existing steel H piles will be cut to the bottom of abutment elevation. Existing steel reinforcement within the piers and abutments is to be blast cleaned and reused in the new substructure units. Any deteriorated or damaged steel that is unable to be reused will be brought to the City's attention, and if required, new bars will be epoxy anchored to supplement those damaged.

A review of the plans indicates a potential constructability issue in relation to the widened sections of the abutments. The plan details call for the contractor to attempt to salvage the transverse steel from the existing abutments for the purpose of lapping with the proposed steel in the newly widened section of the abutment. This will require the contractor to score the existing abutment and break away the concrete around the desired bars for salvage. The project team will monitor this process as it will likely create the opportunity for the fracturing of adjacent concrete on the abutments meant to stay in place. It may also present challenges to not damage the existing bars called to be salvaged during the removal operation. At a minimum, additional substructure patching quantity will likely be needed to repair areas that are damaged in this work operation.



Mike has experience in sounding existing concrete and the layout for substructure repairs. The repairs require removal of unsound concrete to one inch beyond the first mat of steel. He will inspect the steel and require replacement if corroded. After chipping operations, we will confirm areas are cleaned with compressed air and galvanic anodes placed. Before placement of patch concrete, the surface will be moistened and primed. We will ensure the concrete is consolidated and excessive hand placement is avoided to prevent voids.

Additional repairs to substructure units will include flushing and repair of cracks and concrete patching. It is understood that the repair areas and cracks shown on the plans are from an October 2021 inspection and that substructure units are to be sounded prior to construction to determine additional repair needs. Penetrating water repellant treatment will be applied to all repair areas. Substructure horizontal surface sealer will be installed on the new pier caps once the elastomeric bearing pads are installed.

Superstructure

For the deck replacement, we will ensure demolition is completed safely and efficiently and complies with all railroad restrictions for track protection. Shear developer layout and welding will be reviewed prior to placement of steel reinforcement.

Our team will review the layout and quantities of reinforcement steel before the project starts to avoid potential delays or field issues. This has proven effective during many previous Fishbeck administered projects as problems were discovered with reinforcement bars that were caught early, and plan revisions were made to address the issues before work started. This will also help mitigate potential material delivery delays for the changes. Our team will evaluate and document all reinforcement steel placement, and ensure placement meets the plans, specifications, and approved shop drawings and confirm minimum lap dimensions are met before each pour.

Before completing the dry run for the proposed deck pour, the rails on the Bidwell, or similar finishing machine, Screed rail elevations, and bulkheads will be checked. During the dry run, measurements will be completed prior to placement of concrete

to verify minimum depths are met and there is sufficient cover over steel reinforcement. Any adjustments to the Bidwell or other finishing machine will be made at this time and will be strung to ensure they are adjusted properly to provide a flat surface and the machine is adjusted to provide the required 3% cross slope as detailed on the bridge plans.

Mike will witness and record measurements for the dry run prior to placement of superstructure concrete and will review any needed adjustments with Alex prior to the deck pour. Mike will determine the surface evaporation rate for concrete and ensure it does not exceed 0.20 psf per hour as detailed in Figure 706-1 of the MDOT 2020 Standard Specifications for Construction before the deck pour begins. They will confirm all applicable items listed in the MDOT Bridge Deck Construction Inspection Checklist are addressed prior to and during the concrete placement and will verify all night lighting provisions and procedures from the contractor's Night Lighting Plan are implemented. Concrete placement will be monitored to verify freefall from the end of the pump does not exceed 6 inches and the contractor is not over-vibrating the placed concrete. Wet depth measurements for both total slab thickness and top mat of reinforcing steel will be taken and compared to the results from the dry run. Wet curing operations will commence as soon as it is determined they will not cause damage to the newly placed concrete deck.

The project special provision for Structural Steel Galvanizing indicates the existing beams are to be removed, salvaged, cleaned, repaired, and sent to a facility for placement of galvanized coatings to match the proposed new beams.

Robb has direct previous experience removing and salvaging existing beams on a project while with MDOT's Jackson TSC on US-127 over I-94. He successfully led this project's team in confirming the structural steel members were blast cleaned to specification and examined them to confirm areas of required repairs and to determine areas of section loss or cracks that needed to be addressed prior to the final coating process. He along with our team member SME will confirm all applicable standards are met for the salvaged beams while they are under repair in the Contractor's chosen fabrication shop. Fabrication inspections services will perform daily surveillance for compliance and monitoring of material inventory, cutting, machining, welding, assembling, coating, and shipping operations. The assigned team member may witness welder qualification tests, welding operations, nondestructive testing of welds, heat cambering and dimensional verification, hardware and material sampling, surface preparation, blast profile, coatings mixing, application and measurement of coating thickness. They may also review material inventory, material test reports and other required documents for conformance. At the completion of the project, the fabrication QA manager will compile and submit a final documentation package containing the required paperwork per MODT's guidelines for project records.

Roadway

The small section of roadway construction for the project will require import of aggregate base and sand subbase for the new sidewalks. A stable, well-drained base is critical to long term durability of a new roadway and to achieve a pavement free of defects, including cracking or rutting. During excavation, we will closely monitor the subgrade for unstable soils and work with the contractor so they do not overwork the subgrade or use rubber-tired equipment more than needed, especially if soils are moist, as this can lead to subgrade instability.

HMA Paving

Our team is experienced with HMA paving projects using multiple mix types. During paving we will closely monitor yield and take temperature checks on every truck placed. Checking yield regularly avoids over-adjustment of the paver screed and will ensure the required pavement thickness is provided. Inspection staff assigned during HMA paving will:

- Monitor for segregation and suggest the contractor use a remixer if needed.
- Require the contractor to regularly clean HMA from the gear box to prevent a cold streak.
- Use a 10-foot straight edge to check longitudinal deflection at take-off and in the HMA surface throughout paving.
- Check the roller amplitude to prevent creating high-pitched harmonics in the final surface.
- Ensure tack coat is placed uniformly and at the required application rate.
- Monitor unconfined edges to ensure excessive asphalt waste does not occur.
- Ensure HMA is not excessively overlapped onto existing cold surfaces and the longitudinal joint is bumped where possible to allow rollers to compact downward instead of outward.

Signals

Utility conflicts, incorrect cable sizing, conflicting pay items, and incorrect cabinet size and type can all create extras and delays. We will facilitate early coordination pre-construction to resolve any unclear items or conflicts. Preventing delay will be especially critical for temporary signal work detailed in the plan set.

One constructability item noted regarding the temporary signals pertains to the installation of the temporary pole on the north side of East Medical Center Drive and West Medical Center Drive in stages 1 and on the south side during stage 3. The temporary pole appears to be installed very close to the existing 42-inch sanitary sewer line. Work operations will require vertical exploratory trenching to locate the sewer and confirm placement of the temporary pole.

For signal and associated work, our inspection team will:

- Work with the signal contractor for optimal layout to provide sightlines for opposing traffic during stopped conditions as much as possible.
- Ensure all temp and or permanent signal work for traffic control is completed and fully operational prior to the start of the stage of work.
- If field issues arise, inspection staff will immediately notify Robb and Alex, who will develop resolutions, keeping City of Ann Arbor personnel appraised for concurrence on any proposed changes.

Soil Erosion and Sedimentation Control (SESC)

A total team effort is required to ensure SESC measures are in place and operating effectively. Mike is an EGLE Storm Water Operator and will complete and document all NPDES inspections on the project. Plans indicate that primary controls will be inlet protection and silt fence. Our team will work with field staff to ensure all controls are in place prior to construction operations beginning and that measures are maintained throughout the course of construction operations.

Material Testing and Fabrication Inspection Task

There are several major bridge elements that will require fabrication shop inspection with most impact being the existing and proposed W27 rolled beams.

We anticipate structural steel-related services will include quality assurance (QA) reviews of bridge and bridge component fabrication. We are prepared to act as the owner's representative starting with the prefabrication meeting and continuing through shop receipt of the material, fabrication, coatings inspection, and final shipment of the material to the site for project incorporation.

Our team's proposed quality assurance inspector Todd Johnson (QAI) from SME will perform daily inspection for compliance of material inventory, cutting, machining, welding, assembling, coating, and shipping operations in accordance with the applicable MDOT ITP for steel girders, bridge railing, and any related products being manufactured. The QAI may witness welder qualification tests, welding operations, nondestructive weld testing, heat cambering and dimensional verification, hardware and material sampling, surface preparation, blast profiling, coatings mixing, and coating application and measurement of thickness. The QAI will review quality control (QC) material test reports and other required documents for conformance and will produce daily QA reports and/or weekly summaries as desired by the City. Laboratory services for the testing of high strength bolts and various hardware will be performed at SME's Eaton Rapids facility.

As part of the research and preparations for this proposal, our team has inquired with local area steel fabricators and indications are that Cardinal fabricating intends to bid for the repair of the existing beams and to also provide the new beams for interested Contractors. Based on this information and as a potential cost saving measure, we propose to use personnel from SME that are permanently based within Cardinal's fabrication shop for inspection services to base our cost proposal for the fabrication inspections services. Additional outreach for potential providers of the Galvanizing process of the beams yielded an understanding that there are no Michigan based suppliers that can perform the galvanizing for the size of the existing and proposed beams. An estimated budget for out of state travel and inspection of the galvanizing process has been included as part of the SME laboratory testing services.

DLZ will be performing onsite material testing services and are familiar with the City of Ann Arbor's requirements having worked on similar contracts for the City of Ann Arbor in the past. Our team will use personnel who are cross trained in providing construction inspection, surveying, and materials testing services to maximize efficiency and create savings for the city. All proposed team members have experience with local, state, and federally funded projects and have the required certifications to conduct required testing. This experience includes collecting the documentation needed for project closeout and federal audits.

Material testing services may include:

Concrete: pavement, sidewalks, and other flatworks
- Wet properties testing (slump, air, unit weight, temperature)
- Flexural and compressive strength specimens
- Coring
- Tining
- Rebar pull-testing
- Microtexture testing
- NRMCA concrete plant inspections
- Reinforcing steel and concrete embeds

Earthwork: grading, utility trench backfill, structural backfill, subgrade, base courses, and stabilized soils
- Moisture/density testing
- Proof roll observation
- Construction observation
- Utility trench and structural backfill
- Subgrade and base
- Stabilized soils

Asphalt Pavement:
- Compaction test sections and roller-pass studies
- Nuclear density testing
- Coring
- Sampling
- In-lab testing, extraction, gradation, and volumetric properties.

Office Technician and Project Closeout Tasks

Mary Lou will serve as the Office Technician for the project. While the project is not being bid as an MDOT local agency project, she will maintain the project files to the most current MDOT LAP e-construction standards and coordinate efforts to ensure consistency in the project files with designated field staff. Mary Lou is thoroughly knowledgeable of all project record and documentation requirements and procedures. She will review and process IDRs and associated attachments and prepare estimates. She will oversee and coordinate the review of prevailing wage requirements as outlined in the City of Ann Arbor Prevailing Wage Policy found within the proposal. This will entail review of contractor-submitted weekly employment reports and certified payrolls, which will be reviewed against the project proposal, wage rate interviews, and IDRs to ensure prevailing wage compliance.

The project plans indicate multiple categories will be used on the project. We understand that CAT 1 is for the general rehabilitation operations of the bridge project and is being funded equally by the City and University. CAT 2 work operations related to the bridge widening are being funded entirely by the University. CAT 3 is funded by the City and pertains to planned future expansion and connection for pedestrian pathways. Mary Lou will create the Field Manager file from the eventual Contractors bidding documents. She will confirm the categories are set up correctly based on the final quantities associated within the categories. She will review IDR's and with assistance from Alex and Robb will confirm that IDR postings are accurately entered within the correct category for the work performed.

She will process and track materials documentation and assist in the preparation of pay estimates and drafting of contract modifications. She will generate materials deficiency reports at each estimate, including detailed notes on the reason for the deficiency, and work with the contractor for corrective action as needed. Her knowledge and experience will facilitate resolution of any deficiencies and will help to resolve them immediately, so project closeout can occur expediently.

Project records will be maintained at Fishbeck's Lansing office. Our construction engineering services will comply with all applicable federal and state laws and regulations. The project will be constructed and fully documented for compliance with the City of Ann Arbor project construction contract, proposal, and plans; the MDOT 2020 Standard Specification for Construction and all applicable references including and University of Michigan standards; the MDOT Materials Source Guide; and all other references, guidelines, and procedure manuals required, in addition to all applicable specifications, requirements and expectations of the City.

Fishbeck will make the files available to the City at any time should they wish to monitor this aspect of the project, either by Field Manager read-only contract files or via a project record storage system, or both, as preferred by the City.

Construction Surveying & As Builts Task

Fishbeck survey staff will perform all required project surveying and staking including horizontal and vertical control, storm sewer and drainage structures, bridge foundations, detour signing, and retaining wall limits, and will locate and stake the proposed slope nail anchors as noted in the contractors submitted plan per project specifications. Igor Shrott and Casey Veitengruber, will also set the required control at 50-foot intervals and layout all retaining walls final elevations. Survey staff will reinstall stakes as needed due to the duration of the project and subsequent potential for stakes to be disturbed or removed by contractor operations or other

elements. The special provision for structure survey during construction is within the project specifications. Igor and Casey have experience in providing survey tasks to satisfy the requirements of this provision.

Fishbeck Survey Project Manager Tim Platz and his assistant Michelle Nitengale will perform office CADD assistance on survey data and assist in final as-built plan preparations.

Inspectors and surveyors assigned to the project will use Bluebeam Studio to create a set of as-built plans in real time as the items of work are completed. Using Bluebeam Studio multiple inspectors can mark up the same PDF plan document simultaneously to create attachments for their inspector's daily reports (IDRs). These mark-ups will at the same time lend to the creation of an as-built project plan set. Layers will be created for critical items of work within the plans and the PDF plan set will be updated daily as work items are completed. The as built markup checklists provided within the project's proposal will be followed. These detail critical as-built elevations such as pipe inverts, tops of footings or walls, and finished deck profile grades to be entered. Lengths of items of work such as structure-to-structure pipe runs, or curb and gutter placed, will be recorded daily. Robb and Alex will review the working as-built plan set on a regular basis for both accuracy and to ensure all data is being entered in a timely manner. As-built plans and final quantities will thus be completed in real time as the project progresses, by having all inspectors associated with the project use the same PDF plan set.

Fishbeck's inspectors have access to all equipment required to perform their assigned duties including hand tools, laser levels, optical levels, and concrete testing equipment. Our inspection and office technicians have smart phones to ensure real-time access and laptops with the latest version of InfoTech FieldManager/FieldBook software, ProjectWise, Bluebeam, and Microsoft Office. Fishbeck will also provide the following inspection equipment, as applicable, to perform field evaluations:

Safety Equipment

- Hard hats
- Safety vests
- Safety eye glasses
- Gloves
- Harness and lanyard
- Beam flange clamp with retractable lifeline
- Specialized Ladder for increased vertical reach. This ladder has adjustable outrigger footings that increase the width of the ladder foundation to allow independent vertical adjustment on uneven ground and is a key piece of equipment for safely accessing beam-ends over railroads or on side slopes

Additional Tools

- Waders
- Hammers
- Lighting
- Marking spray chalk (temporary- washes away with rain)
- Levels
- Heat guns
- Measuring devices

Surveying Equipment

- Laser Scanner
  - Leica P20
- Total Stations
  - Leica TCRP 1203 (Robotic)
  - Leica TS12
  - Leica TS15
  - Leica TCX 1105 (Extended Range)
  - Trimble S6
- Data Collectors and Software
  - Leica CS15 with MicroSurvey and SmartWorks
  - Leica RX1230 with MicroSurvey and SmartWorks
  - Leica CS 25
  - MicroSurvey Allegro Messa II
- GNSS/GPS Receivers
  - Leica AT1200GG Series
  - Leica GS10
  - Leica GS14
  - Leica CS15
  - Pacific Crest 35-Watt Radio Modems (FCC licensed frequency to Fishbeck)
  - Two-Meter Fixed Height Rods with Bipods
  - Two-Meter Fixed Height Tripod
- Automatic Levels
  - Leica DNA10 Digital Level with On-Board Data Collection
  - Leica NA2 Automatic Level
  - Leica NA2002 Digital Level with On-Board Data Collection
- Equipment and Vehicles
  - Boat (16-foot), motor, and trailer
  - Trucks (4-wheel-drive)
- Typical Survey Truck Inventory
  - Brush Hooks
  - Calculator
  - Cell phone
  - Chaining Pins
  - Data Collector
  - Fire Extinguisher
  - First Aid Kit
  - Folding Rule, Pocket Rod
  - Hard Hats
  - Jumper Cables
  - Level Rod (25-foot)
  - Level Rod (Frisco) (15-foot)
  - Manhole Hook
  - Mauls (3-pound)
  - Motorola Hand-Held Radios
  - Nyclad Tape (200-inch)
  - Orange Safety Vests

- Plumb Bobs
- Prism Pole
- Range Poles
- Retro Reflectors
- Rotating Light
- Safety Cones (16-inch)
- Safety Glasses
- Schonstedt Metal Locator
- Shovel
- Signs and Stands (48-inch)
- Sledgehammer
- Steel Tape (100-foot)
- Survey Quality Level
- Total Station (Tripods and Tribrachs)
- Confined Space Entry Equipment
- Blower and Associated Confined Space Entry Equipment
- Gas Tech (Gas Detector)
- Manhole Tripod and Wench set measuring device, measuring tape, etc.

E

Authorized Negotiator

E | Authorized Negotiator

Tia L. Klein, PE

Principal | Senior Vice President

248.862.7699 | tklein@fishbeck.com

A full list of firm negotiators follows.

Jeffrey A. Schumaker, PE

Jeffrey J. Brown, PE

John A. Condie, PE

Thomas L. Gray, II, PE

Kerri A. Miller, PE, LEED AP

Robert E. Pomeroy, AIA

Kamran Qadeer, PE

Gregory A. Tkacz, PE, LEED AP BD+C

John A. Willemin, PE

Allen J. Aspacher, PE

David J. Baar, PE

Anthony G. Bartol, PS

Michael L. Berrevoets, PE

David P. Bratt, PE

David P. Eno, PE

Stephanie A. Jarrett, PE

John Johnson

Paul E. Koops, PE, BCxP, BECxP, CxA+BE, LEED AP

Christopher M. Kretovic, AIA

Anthony R. Kuhtz, PE, LEED AP

Peter A. Lepczyk, CPG

Jacquelyn F. Linck, PE

Roger M. Maddox, PE

Adam K. Meeker, AIA

Anthony S. Mourand, PE

Ryan D. Musch, PE, LEED AP, SITES AP

Mukund P. Patel, PE

Brian D. Phillips, PE, LEED AP

Kelli S. Piper, CHMM

Timothy A. Platz, PS

David L. Potter, PE

Dandi V. Prasad, PE

William L. Rapson, RA, CDT, LEED AP

Maria E. Sedki, PE

Christian J. Sikkema, PE

Aaron R. Steele, CPA

Bryan D. Turczynski, PE

Karen S. Van Drie

Roman A. Wilson

Mark A. Chaput

Juliet Jakobowski-Maes, AIA, LEED AP

Kent D. Moeggenborg

Leonard Harwell

F

Attachments

ATTACHMENT B
LEGAL STATUS OF OFFEROR

(The Respondent shall fill out the provision and strike out the remaining ones.)

The Respondent is:

- A corporation organized and doing business under the laws of the state of Michigan, for whom Tia L. Klein, PE bearing the office title of Principal/Senior Vice President whose signature is affixed to this proposal, is authorized to execute contracts on behalf of respondent.*

  *If not incorporated in Michigan, please attach the corporation's Certificate of Authority

- ~~A limited liability company doing business under the laws of the State of _____, whom _____ bearing the title of _____ whose signature is affixed to this proposal, is authorized to execute contract on behalf of the LLC.~~

- ~~A partnership organized under the laws of the State of _____ and filed with the County of _____, whose members are (attach list including street and mailing address for each.)~~

- ~~An individual, whose signature with address, is affixed to this RFP.~~

Respondent has examined the basic requirements of this RFP and its scope of services, including all Addendum (if applicable) and hereby agrees to offer the services as specified in the RFP.

Tia L Klein Date: 11/10/22,
Signature

(Print) Name Tia L. Klein, PE Title Principal/Senior Vice President

Firm: Fishbeck

Address: 5913 Executive Drive, Suite 100 Lansing, MI 48911

Contact Phone 248.862.7699 Fax _____

Email tklein@fishbeck.com

ATTACHMENT C
CITY OF ANN ARBOR DECLARATION OF COMPLIANCE

Non-Discrimination Ordinance

The "non discrimination by city contractors" provision of the City of Ann Arbor Non-Discrimination Ordinance (Ann Arbor City Code Chapter 112, Section 9:158) requires all contractors proposing to do business with the City to treat employees in a manner which provides equal employment opportunity and does not discriminate against any of their employees, any City employee working with them, or any applicant for employment on the basis of actual or perceived age, arrest record, color, disability, educational association, familial status, family responsibilities, gender expression, gender identity, genetic information, height, HIV status, marital status, national origin, political beliefs, race, religion, sex, sexual orientation, source of income, veteran status, victim of domestic violence or stalking, or weight. It also requires that the contractors include a similar provision in all subcontracts that they execute for City work or programs.

In addition the City Non-Discrimination Ordinance requires that all contractors proposing to do business with the City of Ann Arbor must satisfy the contract compliance administrative policy adopted by the City Administrator. A copy of that policy may be obtained from the Purchasing Manager

The Contractor agrees:

(a) To comply with the terms of the City of Ann Arbor's Non-Discrimination Ordinance and contract compliance administrative policy.

(b) To post the City of Ann Arbor's Non-Discrimination Ordinance Notice in every work place or other location in which employees or other persons are contracted to provide services under a contract with the City.

(c) To provide documentation within the specified time frame in connection with any workforce verification, compliance review or complaint investigation.

(d) To permit access to employees and work sites to City representatives for the purposes of monitoring compliance, or investigating complaints of non-compliance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services in accordance with the terms of the Ann Arbor Non-Discrimination Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Non-Discrimination Ordinance, obligates the Contractor to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract.

Fishbeck
Company Name

Tia L Klein 11/10/22
Signature of Authorized Representative Date

Tia L. Klein, PE | Principal/Senior Vice President
Print Name and Title

59813 Executive Drive, Suite 100 Lansing, MI 48911
Address, City, State, Zip

248.862.7699 | tklein@fishbeck.com
Phone/Email address

Questions about the Notice or the City Administrative Policy, Please contact:
Procurement Office of the City of Ann Arbor
(734) 794-6500

Revised 3/31/15 Rev. 0 NDO-2

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ATTACHMENT D
CITY OF ANN ARBOR
LIVING WAGE ORDINANCE DECLARATION OF COMPLIANCE

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that an employer who is (a) a contractor providing services to or for the City for a value greater than $10,000 for any twelve-month contract term, or (b) a recipient of federal, state, or local grant funding administered by the City for a value greater than $10,000, or (c) a recipient of financial assistance awarded by the City for a value greater than $10,000, shall pay its employees a prescribed minimum level of compensation (i.e., Living Wage) for the time those employees perform work on the contract or in connection with the grant or financial assistance. The Living Wage must be paid to these employees for the length of the contract/program.

Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from compliance with the Living Wage Ordinance. If this exemption applies to your company/non-profit agency please check here [___] *No. of employees__*

The Contractor or Grantee agrees:

(a) To pay each of its employees whose wage level is not required to comply with federal, state or local prevailing wage law, for work covered or funded by a contract with or grant from the City, no less than the Living Wage. The current Living Wage is defined as $14.82/hour for those employers that provide employee health care (as defined in the Ordinance at Section 1:815 Sec. 1 (a)), or no less than $16.52/hour for those employers that do not provide health care. The Contractor or Grantor understands that the Living Wage is adjusted and established annually on April 30 in accordance with the Ordinance and covered employers shall be required to pay the adjusted amount thereafter to be in compliance with Section 1:815(3).

Check the applicable box below which applies to your workforce

[___] Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage without health benefits

[X] Employees who are assigned to any covered City contract/grant will be paid at or above the applicable living wage with health benefits

(b) To post a notice approved by the City regarding the applicability of the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.

(c) To provide to the City payroll records or other documentation within ten (10) business days from the receipt of a request by the City.

(d) To permit access to work sites to City representatives for the purposes of monitoring compliance, and investigating complaints or non-compliance.

(e) To take no action that would reduce the compensation, wages, fringe benefits, or leave available to any employee covered by the Living Wage Ordinance or any person contracted for employment and covered by the Living Wage Ordinance in order to pay the living wage required by the Living Wage Ordinance.

The undersigned states that he/she has the requisite authority to act on behalf of his/her employer in these matters and has offered to provide the services or agrees to accept financial assistance in accordance with the terms of the Living Wage Ordinance. The undersigned certifies that he/she has read and is familiar with the terms of the Living Wage Ordinance, obligates the Employer/Grantee to those terms and acknowledges that if his/her employer is found to be in violation of Ordinance it may be subject to civil penalties and termination of the awarded contract or grant of financial assistance.

Fishbeck	5913 Executive Drive, Suite 100
Company Name	Street Address
Tia L Klein 11/10/22	Lansing, MI 48911
Signature of Authorized Representative Date	City, State, Zip
Tia L. Klein, PE | Principal/Senior Vice President	248.862.7699
Print Name and Title	Phone/Email address

ATTACHMENT E

VENDOR CONFLICT OF INTEREST DISCLOSURE FORM

All vendors interested in conducting business with the City of Ann Arbor must complete and return the Vendor Conflict of Interest Disclosure Form in order to be eligible to be awarded a contract. Please note that all vendors are subject to comply with the City of Ann Arbor's conflict of interest policies as stated within the certification section below.

If a vendor has a relationship with a City of Ann Arbor official or employee, an immediate family member of a City of Ann Arbor official or employee, the vendor shall disclose the information required below.

1. No City official or employee or City employee's immediate family member has an ownership interest in vendor's company or is deriving personal financial gain from this contract.
2. No retired or separated City official or employee who has been retired or separated from the City for less than one (1) year has an ownership interest in vendor's Company.
3. No City employee is contemporaneously employed or prospectively to be employed with the vendor.
4. Vendor hereby declares it has not and will not provide gifts or hospitality of any dollar value or any other gratuities to any City employee or elected official to obtain or maintain a contract.
5. Please note any exceptions below:

Conflict of Interest Disclosure*	
Name of City of Ann Arbor employees, elected officials or immediate family members with whom there may be a potential conflict of interest.	( ) Relationship to employee ( ) Interest in vendor's company ( ) Other (please describe in box below)
N/A	

*Disclosing a potential conflict of interest does not disqualify vendors. In the event vendors do not disclose potential conflicts of interest and they are detected by the City, vendor will be exempt from doing business with the City.

I certify that this Conflict of Interest Disclosure has been examined by me and that its contents are true and correct to my knowledge and belief and I have the authority to so certify on behalf of the Vendor by my signature below:

Fishbeck		248.862.7699
Vendor Name		**Vendor Phone Number**
Tia L Klein	11/10/22	Tia L. Klein, E
Signature of Vendor Authorized Representative	**Date**	**Printed Name of Vendor Authorized Representative**

ROBB WELCH, PE

SENIOR CIVIL ENGINEER

Robb has over 18 years of experience in the construction engineering industry. Construction administration is his area of expertise, which includes reviewing work product and providing direction to improve services; reviewing design plans and contract documents during project development for constructability purposes; and prioritizing, assigning, and overseeing staff assignments to successfully complete all construction oversight duties. Robb has provided all aspects of construction administration on multiple freeway and bridge reconstruction projects.

YEARS OF EXPERIENCE

5 years — Fishbeck
18 years — total

EDUCATION

BS in Civil Engineer,
Michigan State University

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer - Michigan, Indiana

EGLE Stormwater Management Operator

EGLE SESC Plan Review and Design

MDOT Computerized Office Technician

MDOT Certified Project Engineer

MEMBERSHIPS

National Society of Professional Engineers

EXPERIENCE

CITY OF ANN ARBOR, MICHIGAN

ALLEN CREEK RAILROAD BERM OPENING AND TRAIL EXTENSION

Construction engineering services included project engineering, office technician, construction staking, and field inspection for installation of side-by-side large precast box culverts for stormwater control, and pedestrian access extension to the border-to-border trail system under the existing railroad berm. The project also involved extensive coordination with MDOT Office of Rail and Amtrak on design aspects and construction impacts to facilities owned and operated by the two entities.

MDOT | CLINTON AND EATON COUNTIES, MICHIGAN

I-69 FROM FRANCIS ROAD TO AIRPORT ROAD FULL CE

Project involved 5.28 miles of HMA roadway reconstruction, drainage improvements, signing upgrades, and 13 bridge rehabilitations including epoxy overlay, deck patching, painting, pin and hanger replacement, joint repair and replacement, substructure repairs, scour countermeasures, structural steel repairs and painting, barrier patching, approach work and pavement markings on I-69.

MDOT | MONROE COUNTY, MICHIGAN

I-75 RECONSTRUCTION FULL CE FROM THE STATE LINE TO ERIE ROAD

Project involved full CE for 5.06 miles of concrete freeway reconstruction including new storm sewer, valley gutter, open graded drainage course, cement treated permeable base, concrete pavement, removal and replacement of four large box culverts, two bridge rehabilitations, and nine bridge replacements. Duties included leading a multidisciplinary team by providing oversight on behalf of MDOT for bridge full CE and multiple as-needed contracts for ITS program management, survey, and materials testing, and providing stakeholder updates and media outreach on project impacts.

MDOT | OAKLAND COUNTY, MICHIGAN

M-59 RECONSTRUCTION AND REHABILITATION FULL CE, TIPSICO LAKE ROAD TO MILFORD ROAD

Provided full construction engineering for 3.20 miles of HMA reconstruction, cold milling and resurfacing, shared-use path and reconstruction, tree removal, earthwork, shoulders, aggregate base, OGDC, underdrain, storm sewer concrete curb, gutter, driveway, sidewalk and ramps, signing, signals, and pavement markings. The project required coordination with multiple businesses, residents, and local stakeholders.

WASHTENAW COUNTY ROAD COMMISSION | WASHTENAW COUNTY, MICHIGAN

BAKER ROAD ROUNDABOUT

Construction inspection oversight for Baker Road reconstruction, including construction of two roundabouts, water main and sanitary sewer, road resurfacing, and drainage improvements.

MDOT BRIGHTON TSC | MONROE COUNTY, MICHIGAN

I-75 FROM OHIO STATE LINE TO ERIE ROAD COMPLETE RECONSTRUCTION

Project manager for a multidisciplinary team that provided full construction engineering and

fishbeck

ROBB WELCH, PE

SENIOR CIVIL ENGINEER

inspection including office technician services for the complete reconstruction of 5.06 miles of concrete pavement with cement treated permeable base and box culvert installation as part of overall drainage improvements. Project also included 9 structures replacements and 2 structure rehabilitations. Responsibilities included coordination among several consultant teams for project oversight and compliance with all applicable regulations, extensive MOT oversight, providing and coordinating lane closure notifications, and press releases for night and weekend work operations.

MDOT BRIGHTON TSC | WASHTENAW COUNTY, MICHIGAN

I-94 FROM M-14 TO CARPENTER ROAD MILL AND RESURFACE

Project manager, provided full construction engineering and inspection including office technician services for rehabilitation of 9.12 miles of composite pavement on I-94 and US-23 interchange. Project included concrete pavement rehabilitation prior to cold milling and HMA asphalt overlay. Night work was conducted and included extensive MOT oversight. Responsibilities included providing and coordinating lane closure notifications and press releases for night and weekend work operations.

CITY OF LANSING, MICHIGAN

COMBINED SEWER OVERFLOW SEPARATION AND EARTHEN ARCH BRIDGE REHABILITATION

Provided full CE oversight for 1.79 miles of HMA rehabilitation, concrete curb and gutter, sidewalk, sidewalk ramps, drainage, sewer, water main, bridge rehabilitation, steel sheet piling, sewer overflow separation, and pavement markings on North Grand River Avenue over the Grand River. The project required extensive coordination with property owners during sewer and water main operations.

AURELIUS ROAD OVER GTW RAILROAD BRIDGE CONSTRUCTION

Provided full construction engineering services for installation of the new structure on Aurelius Road over the GTW Railroad. Project details include installation of MSE walls as part of integral abutments for the new structure and roadway reconstruction and expansion of pedestrian pathway. The project also involved extensive coordination with the GTW Railroad on construction provisions for affected section of tracks that support up to 26 daily train movements at up to speeds of 79 mph.

AURELIUS ROAD OVER GTW RAILROAD BRIDGE DESIGN

Project involved replacement of the Aurelius Road bridge over GTW Railroad and nearly one mile of approach and road reconstruction. The road limits included approach work on the Red Cedar River bridge south of the railroad bridge; no work is included on the river bridge. The GTW Railroad has four tracks with one slide track at this location; therefore, the proposed span is very long at nearly 105 feet.

ADA SIDEWALK RAMP UPGRADES AND SAFETY IMPROVEMENTS

Project manager, provided full construction engineering, administration, and oversight for safe routes to school, updating ADA-compliant ramps and sidewalks on various designated school routes. Specific responsibilities included IDR reviews, contract modifications, and oversaw pay estimates. Other duties included overseeing the record review process through to final estimate submittal. FieldManager and ProjectWise were used to document and contain information.

THREE STREETS PAVING

Project manager, provided full construction engineering, administration, and oversight for cold milling and HMA resurfacing of three City streets. Work elements included the field verification and oversight of ADA sidewalk and ramps modifications for one-way street conversions. Project utilized an innovative crumb rubber HMA mixture that required specific documentation for final grant payment processing. Project utilized FieldManager for project documentation and tracking.

CITY OF JACKSON, MICHIGAN

MECHANIC STREET COMPLETE RECONSTRUCTION

Project manager, provided full construction administration and oversight for complete HMA roadway reconstruction including installation of new sanitary and storm sewers, new curb and gutter, sidewalk, and final restoration. Responsibilities included assigning staff to successfully complete construction and project documentation. FieldManager and ProjectWise were used to document and contain information during this project.

ROBB WELCH, PE

SENIOR CIVIL ENGINEER

JACKSON COUNTY DOT | JACKSON COUNTY, MICHIGAN

5TH STREET STREETSCAPE AND REHABILITATION

Project manager, provided full construction administration and oversight for complete HMA roadway reconstruction including installation of new sanitary and storm sewers, new curb and gutter, sidewalk, and final restoration. Responsibilities included assigning staff to successfully complete construction and project documentation. FieldManager and ProjectWise were used to document and contain information during this project.

CITY OF KALAMAZOO, MICHIGAN

PORTAGE STREET CONGESTION AND MITIGATION AIR QUALITY SIGNAL MODERNIZATION

Project manager, provided full construction administration and oversight services for the installation of signal interconnects, midblock intersection vehicle detection system, and signal modernization. Oversaw project compliance with MDOT LAP policies and procedures.

MACOMB COUNTY ROAD COMMISSION | MACOMB COUNTY, MICHIGAN

EXECUTIVE DRIVE FULL DEPTH CONCRETE RECONSTRUCTION

Project manager, provided full construction engineering administration and oversight for complete concrete reconstruction; drainage improvements including storm sewer upgrades; new curb and gutter; new sidewalk; and slope restoration. The project was an economic development grant. Provided lane closure and project updates to the affected businesses and community on project-related issues.

MDOT JACKSON TSC | JACKSON, MICHIGAN

I-94 OVER US-127 BRIDGE PAINT AND REHABILITATION

Delivery engineer, work included bridge rehabilitation, cleaning and coating structural steel, beam end repairs, bearing replacement, substructure patching, and concrete surface coating. Responsibilities included administrating all aspects of construction activities, reviewing design plans and contract documents, providing lane closure information for press releases and media updates, identifying training needs and verifying training was obtained, and assigning staff to successfully complete construction duties.

US-127 OVER I-94 BRIDGE REHABILITATION

Delivery engineer, project included deck replacement, structural steel repairs, heat straightening, cleaning and coating structural steel, concrete surface coating, approach work, maintaining traffic, ramp work, guardrail, and drainage improvements. Responsibilities included administrating all aspects of construction activities, providing lane closure information for press releases and media updates, and assigning staff to successfully complete construction duties.

US-127 UNDER MCDEVITT ROAD BRIDGE REPLACEMENT

Delivery engineer, project included bridge replacement with a prestressed concrete box beam bridge, approach work, drainage improvements, ADA sidewalk and ramp improvements, and maintaining traffic. Responsibilities included administrating all aspects of construction activities, reviewing design plans and contract documents, providing lane closure information for press releases and media updates, and assigning staff to successfully complete construction duties.

MDOT JACKSON TSC | LENAWEE COUNTY, MICHIGAN

M-52 FROM US-223 TO M-34 URBAN ROAD RECONSTRUCTION

Delivery engineer, project included 9.75 miles of HMA reconstruction, cold milling, and resurfacing including concrete curb and gutter, ADA sidewalk and ramps, storm and sanitary sewer upgrades, water main installation, and signal upgrades. Responsibilities included administrating all aspects of construction activities, developing and administering vendor contracts for construction oversight, and engineering services.

US-223 OVER RIVER RAISIN BRIDGE REPLACEMENT

Delivery engineer, project included bridge replacement with side by side boxes, approach work, installation of new sanitary sewer that included bypass pumping for several months, upgraded storm sewer, heavy riprap, and maintaining traffic. Responsibilities included administrating all aspects of construction activities, developing and administering vendor contracts for construction oversight, engineering services, and assigning staff to successfully complete construction duties.

YEARS OF EXPERIENCE

9 years — Fishbeck

25 years — total

EDUCATION

BS in Materials Science and Engineering, Wayne State University

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer – Michigan

EGLE Stormwater Management Operator

MDOT Computerized Office Technician

MDOT Field Manager

MDOT Bituminous Paving Inspection

FHWA NHI 310110 Federal Aid Highways

TRAINING

MDOT Accelerated Bridge Construction and Structural Move Workshop

Federal Aid Highways

Bituminous Paving Inspection

MCA Joint Layout

MCA Concrete Pavement Thickness Design

MCA Concrete Basics

fishbeck

TIA KLEIN, PE

SENIOR VICE PRESIDENT | PRINCIPAL

Tia has served in various roles ranging from construction inspection to development and construction project management. She has been a key component in the successful completion of many MDOT Detroit projects overseeing design and construction. As a project engineer, she has coordinated observation, testing, survey personnel, and contractor operations.

EXPERIENCE

MDOT

I-94 RAILROAD BRIDGE AND RETAINING WALL DESIGN | JACKSON COUNTY, MICHIGAN

Provided services for design of retaining walls attached to the railroad abutments in addition to bridge design plan QA/QC for replacement of two Conrail Railroad bridges. These bridge replacements were included in the I-94 Advanced Construction project and spans the existing and proposed I-94 alignment. Part of our QA/QC services included review of plans and special provisions for conformity to MDOT standards and specifications, preparation of design exceptions, and constructability reviews.

STONY CREEK ROAD OVER US-23 AS-NEEDED INSPECTION FOR EMERGENCY REPAIRS | WASHTENAW COUNTY, MICHIGAN

As a subconsultant to Wade Trim, Fishbeck provided as-needed inspection for the Brighton TSC on this emergency project at Stony Creek Road over US-23 (S03 of 81076) including removing existing barrier walls and bridge deck overhang, and installation of limited deflection temporary concrete barrier.

I-94 CORRIDOR ADVANCE BRIDGES RECONSTRUCTION AS-NEEDED SUBS TO HNTB | WAYNE COUNTY, MICHIGAN

Performed inspection, Small Business Enterprise mentoring, and limited pickup survey using GPS. This project included removal and replacement of the M-3 (Gratiot Avenue) and Chene Street bridges over I-94 and associated approach work, and removal of three pedestrian structures over I-94.

I-75 OVER THE ROUGE RIVER BRIDGE AS-NEEDED INSPECTION SUBS TO HNTB | WAYNE COUNTY, MICHIGAN

Project included 4.41 miles of concrete pavement and joint repairs and 0.63 miles of road reconstruction, bridge approach, barrier and attenuator replacement, attenuator, rehabilitation of six structures, removal of two structures, permanent lighting, backwall replacement, filler wall, structural steel repairs, noise barrier, construction of four structures, drainage, freeway lighting, new noise wall, ITS work, DMS sign, pavement markings, and signing on I-75 from Goddard Road to Rouge River and various locations on I-75.

TSC AS-NEEDED CONSTRUCTION SERVICES FOR 11 BRIDGES OVER I-75 | CITY OF TAYLOR, MICHIGAN

As a subconsultant to HNTB, performed as-needed inspection on this 4.6-mile project that included road and bridge rehabilitation and reconstruction including pile installation, deck patch, healer sealer, concrete work, bridge painting, railing replacement, substructure repairs, and approach for 11 structures as part of the Rouge River Bridge package of projects.

I-94 RAILROAD BRIDGE AND RETAINING WALL DESIGN | CITY OF DETROIT, MICHIGAN

Performed constructability review for preliminary plan documents for design of retaining walls attached to railroad abutments and bridge design of two Conrail Railroad bridges.

I-696 PLAZA STRUCTURE REHABILITATIONS | CITY OF OAK PARK, MICHIGAN

Assistant project engineer for full construction engineering services for drainage system, railing and substructure repair, tree, road, parking lot removal and construction, concrete slab construction, and drainage at three pedestrian plaza structures over I-696. Project included spray-applied methyl-methacrylate water proofing membrane, redline 40 preformed joint

TIA KLEIN, PE

SENIOR VICE PRESIDENT | PRINCIPAL

TRAINING CONTINUED

MCA Hot and Cold Weather Concreting

Constructing Pedestrian Facilities for Accessibility

MCA Concrete Codes, Standards, and Specification

MCA Concrete Decorative Tips

MCA Fundamentals of Mix Proportioning

CPAM Precast Concrete Pipe and Box Culvert

CPAM Precast Manhole Design, Installation and Value Engineering

waterproofing, LiDAR survey, extensive drainage grid with PVC underdrain and 34R, patented CU structural soil, and PVC membrane and clay bridge beam water barrier.

I-75 UNDER STATE FAIR AVENUE | CITY OF DETROIT, MICHIGAN

Project engineer for partial superstructure replacement includes fascia beam removal and replacement; partial deck, solid parapet bridge railing, fence, and sidewalk replacement; temporary bridge lighting; pin and hanger assembly; shear developers; superstructure concrete night casting; part-width construction; partial cleaning and coating of structural steel; bridge-mounted signs; false decking; maintenance of traffic; and temporary and permanent pavement markings on S02 and 82252, State Fair Avenue over I-75.

TRUMBULL STREET AND I-75 OVER I-94 EMERGENCY BRIDGES REPAIRS | CITY OF DETROIT, MICHIGAN

Provided full construction engineering services for heat straightening of structural steel, pin and hanger replacement, bolted beam repairs, welded repairs, and partial painting.

GLENDALE OVER I-96 BRIDGE REPAIRS | CITY OF DETROIT, MICHIGAN

Responsible for replacement of Pier 1, substructure patching, joint replacement, cleaning and coating, and slope protection repairs.

M-85 OVER ROUGE RIVER | CITY OF DETROIT, MICHIGAN

Served as senior contracts and projects administration engineer for this bascule bridge replacement, roadway reconstruction, utility relocation, and MOT.

GATEWAY AMBASSADOR BRIDGE PLAZA COMPLETION | CITY OF DETROIT, MICHIGAN

Responsible for demolition and remediation of specific structure components, pier realignments, bridge barrier walls, gating systems, and toll booth relocation for this accelerated project.

M-59 FROM ROMEO PLANK TO I-94 FULL CE | MACOMB COUNTY, MICHIGAN

Performing full construction engineering and managing a multi-consultant team for 5.05 miles of HMA reconstruction, concrete curb, gutter, sidewalk and ramps, drainage, signing, guardrail, pavement markings, bridge rehabilitation including epoxy overlay, concrete patching, partial painting, and slope paving on seven structures on M-59.

I-75 RECONSTRUCTION FULL CE FROM THE STATE LINE TO ERIE ROAD | MONROE COUNTY, MICHIGAN

This project involves full CE for 5.06 miles of concrete freeway reconstruction including new storm sewer, valley gutter, open graded drainage course, cement treated permeable base, concrete pavement, removal and replacement of four large box culverts, two bridge rehabilitations, and nine bridge replacements. Duties include leading a multidisciplinary team by providing oversight on behalf of MDOT for bridge full CE and multiple as-needed contracts for ITS program management, survey, and materials testing, and providing stakeholder updates and media outreach on project impacts.

M-59 HMA ULTRATHIN OVERLAY | OAKLAND COUNTY, MICHIGAN

Full construction engineering services for 6.15 miles of preventive maintenance, HMA micro cold milling and ultrathin overlay, detail 7 joint and crack repairs, curb repairs, rumble strips, ADA compliance review, and pavement markings on M-59 from Woodward Avenue to Crooks Road in the Cities of Pontiac, Auburn Hills, and Rochester Hills.

M-59 RECONSTRUCTION AND REHABILITATION FULL CE, TIPSICO LAKE ROAD TO MILFORD ROAD | OAKLAND COUNTY, MICHIGAN

Provided full construction engineering for 3.20 miles of HMA reconstruction, cold milling and resurfacing, shared-use path and reconstruction, tree removal, earthwork, shoulders, aggregate base, OGDC, underdrain, storm sewer concrete curb, gutter, driveway, sidewalk and ramps, signing, signals, and pavement markings. The project required coordination with multiple businesses, residents, and local stakeholders.

ALEX FIELDS, PE

CIVIL ENGINEER

Alex has continued experience in providing inspection and documentation of MDOT road and bridge rehabilitation and reconstruction projects including various aspects of bridge rehabilitation and reconstruction. Alex also has experience in HMA paving, concrete pavement reconstruction, signing, traffic signals, electrical/ITS, underground pipe installation, and MOT. For his role, Alex is proficient in FieldBook, Bluebeam Revu, plan and specification interpretation, construction staking and layout, calculation computations, and generating detailed sketches and daily reports. He is also familiar with AASHTO and MDOT standards and procedures.

YEARS OF EXPERIENCE

1 year — Fishbeck
7 years — total

EDUCATION

BS in Civil Engineering,
Western Michigan University

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer – Michigan,

EGLE Stormwater Management Operator

EGLE SESC Plan Review and Design

ACI Concrete Field Testing Technician Grade 1

MCA Concrete Field Testing Level 1

MDOT Computerized Office Technician

MDOT Density Technology

MDOT HMA Paving Operations

NASSCO, PACP, MACP, and LACP

USDOT HAZMAT

TRAINING

Concrete Paving Inspection

Bridge Construction/ Rehabilitation and Bridge Paint Inspection

Materials Acceptance

fishbeck

EXPERIENCE

MDOT | BRIGHTON TSC

I-75 FROM OHIO STATE LINE TO ERIE ROAD

Project inspector for reconstruction of nine bridges and rehabilitation of two bridges as part of the full reconstruction of I-75 from the Ohio State line to Erie Road. Bridge reconstruction includes both full-width and part-width construction of bridges over waterways, local roads, and railroads while using prestressed concrete bulb-tee, concrete I-beams, and steel beams. Structures over waterways require cofferdam construction including pressure grouped tiebacks, walers, and bracing. Bridge rehabilitation work includes concrete overlays, deck joint replacements, structural steel repairs, cleaning and coating of steel beams, substructure patching, and full-depth deck patches.

US-23 FROM CROUSE TO CLYDE ROAD | LIVINGSTON COUNTY

Project inspector responsible for daily onsite inspection of work for 0.66 miles of HMA cold-milling and resurfacing, concrete pavement repairs, concrete barrier, and glare screen repairs.

US-23 FLEX ROUTE, M-14 TO M-36 | LIVINGSTON AND WASHTENAW COUNTIES

Project inspector responsible for daily onsite inspection of all aspects of bridge reconstruction, bridge rehabilitation, median barrier wall construction including light standard foundations, existing box culvert extensions, and temporary traffic control for nighttime lane closures. The project consisted of reconstruction of five bridges and various levels of rehabilitation on four bridges as part of the US-23 Flex Route project which successfully implemented Michigan's first Active Traffic Management (ATM) system to mitigate congestion in the heavily traveled corridor between Ann Arbor and Brighton.

TRUCK PARKING INFORMATION AND MANAGEMENT SYSTEM | VARIOUS COUNTIES

Project inspector for installation of ITS to monitor and inform truck drivers of real-time truck parking availability along rest areas and welcome centers along I-94, I-75, and I-275. Work included installation of concrete spun poles, direct burial and directional bore conduit installation, light pole foundations, handhole installation, equipment rack installation, and permanent sign installation.

I-96/US-23 INTERCHANGE RECONSTRUCTION | LIVINGSTON COUNTY

Project inspection assistant for 2.35 miles of mainline, collector distributor and ramp pavement reconstruction, new bridge construction, bridge reconstruction and rehabilitation, drainage and safety improvements, temporary signal work, and cold-milling and resurfacing on I-96 from Spencer Road to west Pleasant Valley Road.

MDOT | TAYLOR AND DETROIT TSC

I-75 ROGUE RIVER BRIDGES AND ADJACENT I-75 ROAD WORK | WAYNE COUNTY

Project inspector responsible for daily onsite inspection for as-needed rehabilitation and reconstruction of 4.41 miles of concrete pavement, median barrier, four new structures, and

ALEX FIELDS, PE

CIVIL ENGINEER

TRAINING CONTINUED

Process Training

Structural Steel Bolting

Structural Steel Welding

ATTSA Traffic Control Technician

MDOT Underground Pipe Installation and Inspection

rehabilitation of six structures, freeway lighting, and other work to reconstruct this highly traveled corridor.

MDOT | JACKSON TSC

MIKE LEVINE LAKELANDS TRAIL | JACKSON AND INGHAM COUNTIES

Project inspector for as-needed submittal tracking, review, and NPDES inspections of non-motorized trail construction with aggregate surface. The project included replacement of three bridges, culvert replacements, signing, pavement marking, ADA ramps, and a new trail head along the Mike Levine Lakelands Trail from west of Hawkins Road to M-52 (Clinton Street) in the Villages of Munith and Stockbridge.

CITY OF ADRIAN | MICHIGAN

MAPLE AVENUE SANITARY SEWER IMPROVEMENTS

Lead inspector responsible for daily onsite inspections of sanitary sewer removal, replacement, and rehabilitation for new 18- to 24-inch sanitary sewer, sanitary service laterals, sanitary manholes, CIPP lining of existing 24-inch sanitary sewer, manhole interior coating, HMA paving, chemical base stabilization, HMA base repairs, curb replacement, and ADA ramps.

MARY LOU HUSSEY

OFFICE TECHNICIAN

Mary Lou has been an office technician for road and bridge construction projects for many years. She has attended biweekly progress meetings, visited various road and bridge construction sites, and helped construction department managers develop pay estimates, contract modifications, and work orders. Mary Lou is responsible for certifying materials, tracking daily construction activity through IDRs, and ensuring the accuracy of force account records. She also helps teach the MDOT Certified Office Technician classes for the last two years.

YEARS OF EXPERIENCE

11 years — Fishbeck

31 years — total

EDUCATION

BA in Industrial Psychology, Michigan State University

TRAINING

MDOT FieldManager

MDOT Office Management Procedures for Local Public Work Projects

MDOT Claims Handling and Resolution

MDOT Computerized Office Technician Training

MDOT Prevailing Wage Training

Materials Association Process Seminar

EXPERIENCE

CITY OF ANN ARBOR, MICHIGAN

ALLEN CREEK RAILROAD BERM OPENING AND TRAIL EXTENSION

Office technician services for installation of side-by-side large precast box culverts for stormwater control, and pedestrian access extension to the border-to-border trail system under the existing railroad berm. The project also involved extensive coordination with MDOT Office of Rail and Amtrak on design aspects and construction impacts to facilities owned and operated by the two entities.

CITY OF LANSING, MICHIGAN

COMBINED SEWER OVERFLOW SEPARATION AND EARTHEN ARCH BRIDGE REHABILITATION

Full CE oversight for 1.79 miles of HMA rehabilitation, concrete curb and gutter, sidewalk, sidewalk ramps, drainage, sewer, water main, bridge rehabilitation, steel sheet piling, sewer overflow separation, and pavement markings on North Grand River Avenue over the Grand River. The project required extensive coordination with property owners during sewer and water main operations.

AURELIUS ROAD OVER GTW RAILROAD BRIDGE CONSTRUCTION

Full construction engineering services for installation of the new structure on Aurelius Road over the GTW Railroad. Project details include installation of MSE walls as part of integral abutments for the new structure and roadway reconstruction and expansion of pedestrian pathway. The project also involved extensive coordination with the GTW Railroad on construction provisions for affected section of tracks that support up to 26 daily train movements at up to speeds of 79 mph.

AURELIUS ROAD OVER GTW RAILROAD BRIDGE DESIGN

Project involved replacement of the Aurelius Road bridge over GTW Railroad and nearly one mile of approach and road reconstruction. The road limits include approach work on the Red Cedar River bridge south of the railroad bridge; no work is included on the river bridge. The GTW Railroad has four tracks with one slide track at this location; therefore, the proposed span is very long at nearly 105 feet.

CITY OF COLDWATER, MICHIGAN

BPU GRAND STREET RECONSTRUCTION

Full construction engineering for 0.30 miles of HMA pavement, concrete curb, gutter, sidewalk, ramps and driveway approaches, sanitary sewer, water main and storm sewer on Grand Street from Pierce Street to Marshall Road.

SPARTAN STUDY

Contract work included installing 22,900 feet of 12-inch and 16-inch ductile iron water main on numerous roads and a submersible pump station and 28,600 feet of 18-inch PVC force main connecting the pump station with the treatment plant. The project also included constructing one mile of new Fiske Road, and installing 4,400 feet of 8-inch ductile iron water main and reconstructing Marshall, Pierce, Hanchett, and Harrison.

fishbeck

MARY LOU HUSSEY

OFFICE TECHNICIAN

NORTHEAST ROAD AND UTILITY IMPROVEMENTS

Office technician responsibilities involve reviewing IDRs for accuracy and completeness, working with contractor and the City to ensure proper certified payroll procedures are being followed, and developing pay estimates and contract modifications as directed by the engineer.

JEFFERSON STREET RECONSTRUCTION

Provided office technician services for full construction engineering, administration, and oversight for 0.35 miles of HMA reconstruction, concrete curb and gutter, sidewalk, ramps, driveways, sewer and water main installation. Project utilized FieldManager for project documentation and tracking.

THOMPSON BOULEVARD EXTENSION

Provided office technician services for full construction engineering, administration, and oversight for new HMA roadway construction including concrete curb and gutter, sidewalk, ramps, driveways, sewer and water main installation. Project utilized FieldManager for project documentation and tracking.

INGHAM COUNTY ROAD DEPARTMENT, MICHIGAN

OKEMOS ROAD AND SANDHILL ROAD WIDENING

Responsibilities included setting up and maintaining project files, reviewing payrolls, reviewing IDRs for accuracy and completeness, acquiring and tracking documentation verifying materials met specifications, and helped develop pay estimates and contract modifications, as directed by the engineer.

MDOT | CLINTON AND EATON COUNTIES, MICHIGAN

I-69 FROM FRANCIS ROAD TO AIRPORT ROAD FULL CE

Project involved 5.28 miles of HMA roadway reconstruction, drainage improvements, signing upgrades, and 13 bridge rehabilitations including epoxy overlay, deck patching, painting, pin and hanger replacement, joint repair and replacement, substructure repairs, scour countermeasures, structural steel repairs and painting, barrier patching, approach work and pavement markings on I-69.

MDOT BRIGHTON TSC | WASHTENAW COUNTY, MICHIGAN

US-23/ M-14 BETWEEN WESTERLY TRI LEVEL BRIDGE AND EARHART ROAD

Provided full construction engineering for 3.23 miles of HMA cold milling and resurfacing, culvert lining, ditch cleanout, and pavement marking on US-23 from the west junction of M-14 east to Earhart Road. This project includes a 3-year materials and workmanship pavement warranty. Provided office technician services involving reviewing IDRs for accuracy and completeness, working with contractor and the City to ensure proper certified payroll procedures are being followed, and developing pay estimates and contract modifications as directed by the engineer.

I-94 FROM M-14 TO CARPENTER ROAD MILL AND RESURFACE

Provided office technician services for rehabilitation of 9.12 miles of composite pavement on I-94 and US-23 interchange. Project included concrete pavement rehabilitation prior to cold milling and HMA asphalt overlay. Office technician responsibilities involved reviewing IDRs for accuracy and completeness, working with contractor and the City to ensure proper certified payroll procedures are being followed, and developing pay estimates and contract modifications as directed by the engineer.

MDOT BRIGHTON TSC | MONROE COUNTY, MICHIGAN

I-75 FROM OHIO STATE LINE TO ERIE ROAD COMPLETE RECONSTRUCTION

Provided office technician services for the complete reconstruction of 5.06 miles of concrete pavement with cement treated permeable base and box culvert installation as part of overall drainage improvements. Project also included 9 structures replacements and 2 structure rehabilitations. Office technician responsibilities involved reviewing IDRs for accuracy and completeness, working with contractor and the City to ensure proper certified payroll procedures are being followed, and developing pay estimates and contract modifications as directed by the engineer.

YEARS OF EXPERIENCE

6 years — Fishbeck
29 years — total

EDUCATION

BS in Construction Science and Management, Western Michigan University

REGISTRATIONS/ CERTIFICATIONS

Computerized Office Technician

EGLE Stormwater Management Operator

EGLE SESC Plan Review and Design

Bituminous Paving Operations

Concrete Paving/Bridge Inspection

HMA Paving

HMA Local Agency Sampling

Certified Aggregate Technician, Level 1

Density Technology

Troxler Nuclear Density Gauge Operator

Hazmat

Concrete Field Testing Technician, Level 1

fishbeck

MICHAEL HENDERSON

CIVIL FIELD TECHNICIAN

Michael is an experienced construction manager and inspector with many years spent on federal, state, and local municipal projects.

EXPERIENCE

CITY OF ANN ARBOR, MICHIGAN

ANN ARBOR ALLEN CREEK RAILROAD BERM (2019-2020)

Inspection technician working with the City to provide a pedestrian connection link between the downtown area and the neighbors within the Border-to-Border/Iron Belle Trail area. Services included field inspection, shop fabrication inspection, materials testing, office technician and project documentation duties, public and media relations, construction design assistance, and construction surveying services.

CITY OF LANSING, MICHIGAN

THREE STREETS PAVING

Primary inspection technician for cold milling and HMA resurfacing of three city streets. Work elements included the field verification and oversight of ADA sidewalk and ramps. Oversight and coordination with the City's independent material testing consultation firm for all material testing requirements. Project utilized an innovative crumb rubber HMA mixture that required specific quantity calculations in the field to confirm the mixture was placed in accordance with the grant obtained by the City. Construction work included concrete approaches for City parking ramps.

COMBINED SEWER OVERFLOW SEPARATION AND EARTHEN ARCH BRIDGE REHABILITATION

Full CE oversight for 1.79 miles of HMA rehabilitation, concrete curb and gutter, sidewalk, sidewalk ramps, drainage, sewer, water main, bridge rehabilitation, steel sheet piling, sewer overflow separation, and pavement markings on North Grand River Avenue over the Grand River. The project required extensive coordination with property owners during sewer and water main operations.

CITY OF MONROE, MICHIGAN

WINCHESTER STREET OVER THE RIVER RAISIN BRIDGE REHABILITATION

Primary inspection technician for partial deck reconstruction including construction of an observation deck, deep overlay of two of the five spans, superstructure rehabilitation, construction of bridge railing with pedestrian fencing, light standards, partial expansion joint replacement, and epoxy overlay. Construction work included concrete and HMA reconstruction of bridge approaches with sidewalk and ADA ramps.

UNIVERSITY OF MICHIGAN | ANN ARBOR, MICHIGAN

LAW QUAD UTILITY IMPROVEMENTS

Inspection technician for partial replacement and rehabilitation of steam tunnel duct banks, high-voltage electrical replacement, reconstruction of tunnel vaults, lighting replacement, new drainage and irrigation, water main replacements, concrete sidewalk construction including stone pathway, and restoration and fencing.

MDOT | MONROE COUNTY, MICHIGAN

I-75 COMPLETE RECONSTRUCTION FROM OHIO STATE LINE TO ERIE ROAD

Inspection technician assisting in the oversight for the complete removal and replacement of the concrete pavement on I-75. Project roles included the oversight and coordination of concrete material testing, ROW fence installation and temporary HMA paving.

MICHAEL HENDERSON

CIVIL FIELD TECHNICIAN

MDOT | CITY OF DETROIT, MICHIGAN

I-94 CORRIDOR ADVANCE BRIDGES RECONSTRUCTION

Inspection technician for removal and replacement of the M-3 (Gratiot Avenue) and Chene Street bridges over I-94 and associated approach work, and removal of three pedestrian structures over I-94. Services included limited pick-up survey using GPS.

MDOT | CITY OF MASON, MICHIGAN

LOCAL AGENCY PROJECTS

Lead inspector providing construction oversight for mill and resurface; curb and gutter removal and replacement; and ADA ramp and sidewalk improvements. Performed FieldManager services, and prepared contract modifications and pay estimates.

MDOT | VILLAGE OF DIMONDALE, MICHIGAN

LOCAL AGENCY PROJECTS

Lead inspector providing construction oversight for mill and resurfacing; curb and gutter removal and replacement; and ADA ramp and sidewalk improvements. Performed FieldManager services, and prepared contract modifications and pay estimates.

MDOT | VILLAGE OF BELLEVUE, MICHIGAN

LOCAL AGENCY PROJECTS

Lead inspector providing construction oversight for bridge deck mill and resurfacing; curb and gutter removal and replacement; and ADA ramp and sidewalk improvements. Performed FieldManager services, and prepared contract modifications and pay estimates.

LOCAL AGENCY PROJECTS

Lead inspector for inspection of 168 columns, 173 post-tensioned concrete beams and parapets, and elevated train guideway.

MDOT | CITY OF PORTAGE, MICHIGAN

ROMENCE AND ANGLING ROAD RECONSTRUCTION

Lead inspector providing construction oversight for mill and resurfacing; curb and gutter removal and replacement; and ADA ramp and sidewalk improvements. Performed FieldManager services, and prepared contract modifications and pay estimates.

MDOT | VILLAGE OF TEKONSHA, MICHIGAN

JACKSON DRIVE RESURFACING

Lead inspector providing construction oversight for mill and resurfacing; storm sewer removal and replacement; curb and gutter removal and replacement; and ADA ramp and sidewalk improvements. Performed FieldManager services, and prepared contract modifications and pay estimates.

MDOT | CITY OF MASON, MICHIGAN

SIGNAL UPGRADES

Lead inspector providing construction oversight for installation of two box span signals; curb and gutter removal and replacement; and ADA ramp and sidewalk improvements.

DETROIT TRANSPORTATION CORPORATION | DETROIT, MICHIGAN

Lead inspector providing construction oversight for bridge deck mill and resurfacing; curb and gutter removal and replacement; and ADA ramp and sidewalk removal and reconstruction. Performed FieldManager services, and prepared contract modifications and pay estimates.

DON WINEY

CIVIL FIELD TECHNICIAN

Don has experience in the construction industry and has performed quality assurance testing and soils monitoring, as well as inspection. Most recently, Don provided inspection services for municipal projects in the cities of Lansing and Coldwater which included sanitary and storm sewer, water main, road reconstruction, and ADA sidewalk construction. In his previous role, he conducted inspections and testing for various materials including concrete and soils. Don has been responsible for construction quality assurance (CQA) monitoring and testing of geosynthetics, nuclear density testing, sieve analysis, and specific gravity analysis. Don also served as an intern construction technician for the MDOT Lansing TSC for two years, where he was responsible for inspection and documentation of various aspects of road and bridge construction including HMA paving, concrete construction, checking grade for subbase and aggregate base, and drainage structures.

YEARS OF EXPERIENCE

2 years — Fishbeck
20 years — total

EDUCATION

AS in Applied Science
Civil Technology, Lansing Community College

REGISTRATIONS/ CERTIFICATIONS

EGLE Stormwater Management Operator

EGLE SESC Plan Review and Design

MDOT HMA Paving Operations

MDOT Density Technology

ACI Concrete Field Testing Technician Grade 1

MCA Concrete Field Testing Technician Level 1

USDOT HAZMAT

EXPERIENCE

CITY OF LANSING, MICHIGAN
WILLARD STREET

Construction inspection for installation of force main, structures, and some process piping.

2020 CRUSH AND SHAPE

Construction inspection for sewer installation.

CITY OF COLDWATER, MICHIGAN
SMITH AND MONROE STREETS

Construction inspection on sanitary and storm sewers, water main, concrete curb and gutter, ADA compliance on sidewalks, and road reconstruction.

TOWN OF SILVER CITY, NEW MEXICO
FREEPORT-MCMORAN CHINO MINE

Lead CQA for the construction of a 226,512-sf existing PLS pond relining. Duties included CQA of geosynthetics demolition and installation, subgrade remediation, weekly meetings, and time management and coordination for several contractors.

TOWN OF MORENCI, ARIZONA
FREEPORT-MCMORAN MORENCI/SILVER BASIN MINE

Lead CQA for the construction of a 2,178,000-sf heap leach pad expansion. Duties included CQA of geosynthetics installation and over liner. Performed weekly meetings, time management and coordination for several contractors, and report writing.

OTTAWA COUNTY, OHIO
LAFARGE/MARBLEHEAD QUARRY

Lead CQA responsible for the monitoring of daily construction activities. Provided soil testing for density and moisture using a Troxler 3440 Nuclear Density Gauge. Oversight of contractors to ensure work was completed in accordance with project specifications and permit guidelines. Inspected several thousand feet of structural mat and soil stabilization as part of the raising of the existing dam. Maintenance/inspection of raised dam.

TOWN OF MIAMI-GLOBE, ARIZONA
FREEPORT-MCMORAN MIAMI MINE

Oversight of earth of 1,524,600 sf of earthworks construction and density testing for a reclamation project.

CITY OF SAFFORD, ARIZONA
FREEPORT-MCMORAN COPPER AND GOLD SAFFORD MINE

Assisted with the CQA construction of a 14,000,000-sf heap leach pad expansion. Duties included CQA of solution collection system piping and overliner, geosynthetics installation (LLDPE geomembrane, geotextile), and electronic leak location survey.

DON WINEY

CIVIL FIELD TECHNICIAN

MOLYCORP INCORPORATED | SAN BERNARDINO COUNTY, CALIFORNIA

MOUNTAIN PASS RARE EARTH ELEMENT MINE

Assisted with the CQA of an innovative paste tailings storage facility at Molycorp's Mountain Pass Rare Earth Element Mine. Duties included density testing using a nuclear density gauge and sand cone tests for verification. Performed CQA oversight of earthworks construction and geosynthetics installation of 2,178,000 sf for the tailing storage facility and adjoining reclaim pond.

CITY OF JACKSON , OHIO

ENTACT/JACKSON COUNTY LANDFILL

Lead CQA for 1,110,780-sf landfill final cap and closure of landfill site. Duties encompassed all testing and documentation of geosynthetics, clay cover, vegetative cover, and sedimentation ponds. Additional duties included completion of a final report.

CITY OF JACKSON, MICHIGAN

MCGILL LANDFILL 2016-2020

Lead CQA responsible for the monitoring of daily landfill construction activities. Provided soil testing for density and moisture utilizing a Troxler 3440 Nuclear Density Gauge. Responsible for the CQA installation of 304,920 sf of geosynthetics. Performed CQA of double-layered textured HDPE geomembrane, geosynthetic clay liner, and double-sided geocomposite. Provided oversight of contractors to ensure work was completed in accordance with project specifications and permit guidelines. Additional duties included completion of final a report.

CITY OF MONTROSE, MICHIGAN

BRENT RUN LANDFILL 2014-2020

Lead CQA responsible for the monitoring of daily landfill construction activities. Provided soil testing for density and moisture utilizing a Troxler 3440 Nuclear Density Gauge. Responsible for the CQA installation of 479,160 sf of geosynthetics. Performed CQA of double-layered textured HDPE geomembrane, geosynthetic clay liner, and double-sided geocomposite. Provided oversight of contractors to ensure work was completed in accordance with project specifications and permit guidelines. Ancillary component construction CQA included installation of a new MSE wall. Inspected several thousand feet of structural mat and soil stabilization. Additional duties included completion of a final report.

VILLAGE OF ONTONAGON, MICHIGAN

K&W LANDFILL 2013-2020

Lead CQA responsible for the monitoring of daily landfill construction activities. Provided soil testing for density and moisture utilizing a Troxler 3440 Nuclear Density Gauge. Responsible for the CQA installation of 675,180 sf of geosynthetics. Performed CQA of double-layered textured HOPE geomembrane, geosynthetic clay liner, and double-sided geocomposite. Provided oversight of contractors to ensure work was completed in accordance with project specifications and permit guidelines.

CITY OF WATERVLIET, MICHIGAN

ORCHARD HILL LANDFILL 2011-2020

Lead CQA responsible for the monitoring of daily landfill construction activities. Provided soil testing for density and moisture utilizing a Troxler 3440 Nuclear Density Gauge. Responsible for the CQA installation of 1,785,960 sf of geosynthetics. Performed CQA of double-layered textured HOPE geomembrane, geosynthetic clay liner, and double-sided geocomposite. Provided oversight of contractors to ensure work was completed in accordance with project specifications and permit guidelines.

VILLAGE OF KALKASKA, MICHIGAN

WEXFORD LANDFILL

Lead CQA on 348,480 sf of a double geosynthetics HOPE liner construction of a 4-acre cell. Responsible for all aspects of CQA, inventory of materials, and communication between owner representatives and all contractors.

Staff Education and Experience Report

EMPLOYEE NAME	TITLE	ROLE ON THIS PROJECT
Reginald Tatum	Construction Observer	Material Tester
COMPANY NAME	**YEARS OF EXPERIENCE**	
DLZ	2 **with company** 20 with **other firms**	

EDUCATION: degree, year, school (inc. city and state of school)

B.S. Business management, University of Phoenix, 2018; AAS Business Management, University of Phoenix, 2018

LICENSES AND REGISTRATIONS/CERTIFICATIONS/SPECIAL TRAINING

ACI Concrete Field-Testing Technician – Grade I MDOT Certified Aggregate Technician – Level I	MCA Concrete Field Technician – Level I & II MDOT Moisture/Density Gauge Operator Radiation Safety Training Certification

Mr. Tatum has approximately 20 years of experience as a Field Technician. He has a background in field observation and testing of construction materials including concrete testing, reinforcing steel observation, foundations, proofrolling, helical piers, coring and in-place density testing of both soils and bituminous concrete (asphalt) paving.

Specific Experience ***Work Performed with Previous Employer***

MONTHS/YEARS / CONSTRUCTION BUDGET	PROJECT I.D./ LIMITS OF CONSTRUCTION	ROLE IN THE SERVICE & PROJECT DESCRIPTION
08/2022- 10/2022	City of Detroit - Detroit Economic Growth Corporation - Mount Elliot Road Reconstruction	**Construction Observer** – Document installation of underground utilities. Tracked all sourced materials and quantities used for installing utilities. Logged daily progress throughout project. **Client Contact**: Project Manager - Cleveland Dailey – 313.962.2940 – cdailey@degc.org
04/2022- 07/2022	GLWA Transmission Line Inspection Project 14 Mile between M5 and Becker Road with Brown & Caldwell	**Construction Observer** – Observed vault structures from the east and west end of previously installed transmission line. Observed road restorations, road resurfacing restoration, and soft surface restoration. **Client Contact**: Director - Sue McCormick – 313.224.4701 – mccormic@dwsd.org
05/2021- 08/2021	Consumers Energy - Maple Middlebelt – Pipeline Inspection	**Construction Observer** - Construction observation for 3 mile of gas transmission pipeline coordinated between West Bloomfield Township and Consumers Energy. Right of way maintenance and logged daily progress throughout project. **Client Contact**: Project Manager – Daniel Enck – 616.738.4275 – Daniel.enck@cmsenergy.com
2020 – 2021 $20,000,000	JN: 113716A CS:82194 I-75 Gordy Howe International Bridge, Detroit, Michigan	**Field Technician, QC** – Provided services of Density and Moisture control of Soils, Aggregate Base, and Concrete Sampling. Testing and Documentation of each lift placed of soils and aggregate base, testing and documentation of concrete placed. **Client Contact**: Bridge of North America. -Guy Sinacola, 248.521.1212
2019 – 2020 $10,000,000	JN: 201438 CS: 63174, 63103 I-75 Segment 3: 8 Mile Rd to North of 13 Mile Rd, D/B Finance Main Contract from 8 Mile Rd to 12 Mile Rd Warren, Michigan	**Field Technician, QC** – Provided services of Density and Moisture control of Soils, Aggregate Base, and Concrete Sampling. Testing and Documentation of each lift placed of soils and aggregate base, testing and documentation of concrete placed. **Client Contact**: AECOM.-David Galli, 313.498.1372
3/2019	I-96 Deep Overlay, Structure Patching,	**Field Technician, QC** – Construction Inspection & Materials Testing

		Reginald Tatum
$11,303,221		**Client Contact**: C.A. Hull Company, Inc.-Jeffrey Pitt, 248.451.2430
4/2019 $11,999,340	M-59 HMA Reconstruction, Cold Milling, Resurfacing,	**Field Technician, QC** – Construction Inspection & Materials Testing **Client Contact**: Dan's Excavating- Rick Kincaid, 586.615.6588
5/2018 $5,644,907	JN: 200157A Northwestern Highway HMA Cold Milling, Curb and Gutter Northwestern Hwy from Southfield Rd. to Lahser Rd., Michigan	**Field Technician, QC** – MDOT QC Concrete **Client Contact**: Santos Cement- Mark Loch, 734.522.6711
2018 $3,3312,558	JN:124468 Douglas Mac Arthur Bridge over Detroit River, Detroit, Michigan	**Field Technician, QC** – Construction Inspection & Materials Testing **Client Contact**: Anlaan Corp-Melissa Beland 616.846.8442
5/2017 – 7/2017 $152,460	JN: 131259 Stone School Road, Concrete Sidewalk, Grading, Restoration, Birch Hollow Rd to Packard Rd, Ann Arbor, Michigan	**Field Technician, QC** – Construction Inspection & Materials Testing **Client Contact**: City of Ann Arbor- Igor Kotlyar, 734.794.6310
8/2016 – 10/2016 $436,541	JN: 120392A Midpoint Project Intersection Improvements, Ann Arbor, Michigan	**Field Technician, QC** – Construction Inspection & Materials Testing **Client Contact**: C&D Hughes-Contact, Harm Hamstra, 517.204.4900

Mekehwon P. Boayue		
Staff Education and Experience Report		
EMPLOYEE NAME	**TITLE**	**ROLE ON THIS PROJECT**
Mekehwon P. Boayue	Construction Inspector	Material Tester
COMPANY NAME	**YEARS OF EXPERIENCE**	
DLZ	<1 with company 6 with other firms	
EDUCATION: degree, year, school (inc. city and state of school)		
BS in Construction Management Technology, Wayne State University, 2022		
LICENSES AND REGISTRATION/CERTIFICATIONS/SPECIAL TRAINING		
MDOT – Density Technician #11701-0326 MDOT – Aggregate Technician Level 1 #104006-0226 MCA Concrete Field-Testing Technician, Grade I ACI Concrete Field-Testing Technician, Grade I OSHA10 Safety in Construction Training Nuclear Gauge Safety Training		
Mr. Boayue is an energic, dedicated, and seasoned technical engineering professional with advanced experience in construction materials testing, team leadership, and project support. Tried and true problem-solving skills with the dedication to get the job done. Committed to delivering high-quality results with little supervision.		

Specific Experience ***Work Performed with Previous Employer***

MONTHS/YEARS/ CONSTRUCTION BUDGET	**PROJECT I.D./ LIMITS OF CONSTRUCTION**	**ROLE IN THE SERVICE & PROJECT DESCRIPTION**
2022	CS82023-JN214748, high load hit beam repairs & steel heat straightening on the Cecil Ave Bridge over I-94, Detroit MI	Helping in inspections as part of an as-needed contract with the Detroit TSC. **Client Contact**: David Harris, PE (MDOT)
2022	CS82111-JN215027, roadway & drainage upgrades of E Jefferson Ave from Beaubien Blvd to Bates St, Detroit MI	Performing materials quality assurance testing as part of an as-needed contract with the Detroit TSC. **Client Contact:** Imil Assaf, PE (MDOT)
2022	CS82111-JN216594, bridge deck repairs at Jefferson Ave & Chrysler Dr Bridges over I-375, Detroit MI	Performing materials quality assurance testing as part of an as-needed contract with the Detroit TSC. **Client Contact:** Imil Assaf, PE (MDOT)
2022	CS38111-JN208868, bridge reconstruction at US-127 over M-50, Jackson MI	Performing materials quality assurance testing as a subconsultant for RS&H on an as-needed contract with the Jackson TSC. **Client Contact:** Shane Rixom, PE (RS&H)

Mekehwon P. Boayue		
2022	HDPE Watermains Installation by HDD. Aspen Meadows, White Lake Township MI	Performing onsite inspection and preparing IDRs under a contractor with City of White Lake Township **Client Contact:** Director - Aaron Potter – 248.698.3300 – apotter@whitelaketwp.com
2021	CS25084-JN 132026, Roadway Reconstruction I-69 From Fenton Road Easterly To M-54 (Dort Highway) Genesee County, Michigan	Performing Concrete QC testing and sampling per MDOT Specs. **Client Contact:** Richard Gravel (DAN'S Excavating) – 586.254.2040
2021	CS 82101-JN 204326, Concrete Pavement Repair I-94 From Harris Road to East Of I-275 And Reconstructing Existing Portable Intermittent Truck Weigh Scale On I-94 Belleville Rest Area Washtenaw & Wayne Counties, Michigan	Performing Concrete QC testing and sampling per MDOT Specs. **Client Contact:** Harm Hamstra, (C&D Hughes, Inc.) – 517.645.0111

TIM PLATZ, PS

VICE PRESIDENT | SENIOR SURVEYOR

Tim is the Fishbeck Survey Department Head and performs and coordinates surveys for design and construction projects including boundary, horizontal and vertical control, GPS, construction staking, topographic, and hydraulic surveys. He performs survey and engineering calculations using various software platforms including AutoCAD, MicroSurvey, Leica, and StarNet. Tim also provides QA/QC oversight on field and office deliverables.

YEARS OF EXPERIENCE

21 years — Fishbeck
28 years — total

EDUCATION

BS in Surveying Engineering, Ferris State University

BS in Plastics Engineering Technology, Ferris State University

REGISTRATIONS/ CERTIFICATIONS

Professional Land Surveyor – Michigan, Indiana, Kentucky

HAZWOPER Site Worker

MEMBERSHIPS

Michigan Society of Professional Surveyors

- State Board Vice President, 2009–2012
- West Central Chapter, Vice President, 2005–2008

Michigan Board of Professional Surveyors

AWARDS

Michigan Society of Professional Surveyors

- 2011 Member of the Year
- 2011 and 2010 Presidents Award

EXPERIENCE

WASHTENAW COUNTY ROAD COMMISSION, MICHIGAN

PONTIAC TRAIL/NORTH TERRITORIAL ROAD ROUNDABOUT, SALEM TOWNSHIP

Lead surveyor for this LAP project involving design of a roundabout and road reconstruction. Services included traffic studies, environmental clearance, survey, right-of-way descriptions, road design, roundabout design, hydraulic analysis, MOT design, and public/stakeholder outreach.

MILLER ROAD ROUNDABOUT AND BRIDGE REPLACEMENT, SCIO TOWNSHIP

Lead surveyor for this LAP project involving design of a roundabout, road reconstruction, and replacement of the bridge over Honey Creek. Services included traffic studies, environmental permits, survey, right-of-way descriptions, road design, roundabout design, structural design, hydraulic analysis, MOT design, public/stakeholder outreach, and construction phase services.

ZEEB ROAD/LIBERTY ROAD ROUNDABOUT, PITTS TOWNSHIP

Lead surveyor for project involving design of a roundabout. Services included traffic studies, right-of-way descriptions, road design, roundabout design, hydraulic analysis, MOT design, public/stakeholder outreach, and construction phase services.

WAGNER ROAD IMPROVEMENTS, PITTSFIELD TOWNSHIP

Lead surveyor for LAP project involving design of road/culvert reconstruction and intersection improvements. Services included traffic studies, survey, right-of-way descriptions, road design, MOT design, public/stakeholder outreach, and construction phase services.

MDOT | CALHOUN COUNTY, MICHIGAN

I-94 EASTBOUND REST AREA

Provided design survey for the reconstruction of an existing rest area, including new building, sidewalks, parking area, and possible ramp improvements. As part of this project a legal alignment of the south ROW line was developed.

MDOT | LENAWEE COUNTY, MICHIGAN

US-223 SURVEY AND ROW FROM RODESILER EAST TO THE LENAWEE/MONROE COUNTY LINE

Performed design survey and ROW tasks for widening 1.6 miles of US-223, an existing 2-lane highway, for the addition of a passing relief lane in each direction. The widening will provide for two additional lanes and 8-foot shoulders along US-223. Fee ROW and grading permits were included in the project.

MDOT | CASCADE CHARTER TOWNSHIP, KENT COUNTY, MICHIGAN

I-96 FROM WEST OF M-11 (28TH STREET) EAST TO EAST OF THORNAPPLE RIVER DRIVE

Design survey for proposed free flow interchange.

MDOT | VAN BUREN COUNTY, MICHIGAN

I-94 WESTBOUND CONCRETE RECONSTRUCTION FROM EAST OF M-51 TO WEST OF MATTAWAN

Design for the reconstruction of 10.1 miles of westbound I-94 from 0.8 miles east of M-51 to 0.8 miles west of 24th Street. A survey was performed to map pavement surface, provide profiles, and obtain cross-sections to supplement aerial topographic survey. Hydraulic surveys

TIM PLATZ, PS

VICE PRESIDENT | SENIOR SURVEYOR

were also performed. Road design items included aggregate base, main line concrete pavement, drainage, ramp extensions, ramp resurfacing, lowering for underclearance, guardrail, MOT including crossovers, culvert replacement, freeway signing, soil erosion control, and pavement markings. MOT on local roads was also conducted to facilitate bridge repairs.

MDOT | CALEDONIA CHARTER TOWNSHIP, VILLAGE OF CALEDONIA, KENT COUNTY, MICHIGAN

M-37 FROM SOUTH OF 108TH STREET TO NORTH OF 76TH STREET

Provided road design, road design survey, and ROW survey for over four miles of road resurfacing and widening. Survey work included complete design topographic survey for rehabilitation and reconstruction of an existing 2- and 3-lane roadway including ROW plan development for additional ROW acquisition. The project included adding horizontal and vertical control and full mapping with ROW for the entire project. Road design for cold-milling, widening, HMA resurfacing, drainage, guardrail, ROW, commercial drive openings, pavement markings, maintaining traffic, and permanent signing.

MDOT | OCEANA COUNTY, MICHIGAN

US-31 FROM WINSTON TO M-20

Design for the rehabilitation of 3.969 miles of US-31 including ramp improvements at M-20. Design included an HMA overlay utilizing an ASCRL layer over the existing CRC pavement. Improvements were made to ramps, superelevation, and bridge under clearance. Permanent signing, pavement markings, and MOT plans were also provided.

MDOT | CITY OF WYOMING, BYRON AND GAINES TOWNSHIPS, KENT COUNTY, MICHIGAN

M-6/US-131 NEW HIGHWAY INTERCHANGE (SUBS TO URS)

Construction engineering and field inspection for new highway interchange. This new interchange, connecting two highways, is one of the largest interchanges ever constructed in Michigan.

MDOT | BRANCH AND CALHOUN COUNTIES, MICHIGAN

AS-NEEDED DESIGN SURVEY OF EIGHT INTERSECTIONS FOR ADA RAMPS

Provided design survey and ROW mapping of eight intersections. Survey work included topographic survey of sidewalks and curb for design of ADA ramps and development of ROW plan. The project included horizontal and vertical control for future construction.

MDOT | KENT COUNTY, MICHIGAN

M-11 DESIGN SURVEY

Provided design survey for three miles of urban highway resurfacing. The project included horizontal control and extending vertical control from the existing MDOT project at I-96 bridge over M-11. Due to M-11 being a high traffic area, weekend and night work was utilized to help minimize traffic backups.

MDOT | KALAMAZOO COUNTY, MICHIGAN

I-94/40TH STREET INTERCHANGE

Provided design survey and ROW work for redesign of a bridge and complex interchange redesign. Project included horizontal and vertical control, topographic mapping, structure survey and establishment of SCAT and VAT targeting for mobile LiDAR mapping of road surface area. LiDAR was used as part of this project to minimize traffic backups and increase safety due to the large volume of traffic in this area.

MDOT | BERRIEN COUNTY, MICHIGAN

I-94 CABLE BARRIER SURVEY

Provided topographic mapping of highway median for 12 miles of cable barrier and drainage improvement. Mapping was completed using an RTK GNNS system.

MDOT | MUSKEGON COUNTY, MICHIGAN

BUSINESS 31

Provided design survey for mill and fill of 5.5 miles of divided urban highway. Scope includes

IGOR SCHROTT, PS

SENIOR SURVEYOR

Igor is primarily responsible for field survey work. He has completed hundreds of surveying projects involving roads, bridges, airports, public and private utilities, and commercial development sites. Past projects included various surveying tasks such as control, boundary, topographic mapping, ALTA mapping, construction control, and staking. He is very familiar with GPS Static and RTK, total stations, and data collection.

YEARS OF EXPERIENCE

3 years — Fishbeck
25 years — total

EDUCATION

BS in Survey and Mapping, Metropolitan State College

AS, Schoolcraft College

REGISTRATIONS/ CERTIFICATIONS

Professional Land Surveyor – Michigan, Ohio

TRAINING

MSPS Conference Sessions: Corner Evidence Analysis, Meta Data, FEMA Part I, Surveyor Liability, The Art of GPS Control and Least Squares Adjustment, Lotted Sections

FAA AC-150/5300-16 Level 3 General Guidance/ Specs for Aero

FAA AC-150/5300-18 Level 3 General Guidance/ Specs for Aero

EXPERIENCE

CITY OF ANN ARBOR, MICHIGAN

SNYDER-EDGEWOOD AVENUES AREA STORMWATER IMPROVEMENTS

Study and preparation of 30% plans for approximately 2,100 feet of new storm sewer and roadway reconstruction leading to a new 140,000 cft underground basin. The study was performed to quantify the flooding issues that occur along Snyder Avenue, propose implementable options for the mitigation of this flooding and rank the availability of options on the basis of practicality, constructability, and cost of implementation. The final product of this study was a 30% plan and cost estimate for the approved concept. The project included four public meetings where the study and 30% plans were discussed with local residents and their input received. The proposed improvements include approximately 2,100 feet of new storm sewer, 140,000 cft underground basin, 700 feet of water main replacement/upsizing, and approximately 1,200 feet of roadway reconstruction.

STADIUM BOULEVARD RECONSTRUCTION

Performed surveying for the reconstruction of 0.66 miles of 4- and 5-lane trunkline from 7th Street to Kipke Drive. Project aspects included adding on-street bike lanes, adding sidewalk to the south side of Stadium, reconstructing five intersections, replacing 4,500 feet of 30-inch raw water main, replacing 1,875 feet of 12-inch service water main, replacing 850 feet of 8-inch service water main, reconstructing 1,000 feet of Prescot Avenue, reconstructing 650 feet of Potter Avenue, installing 2,800 feet of 10-foot-wide by 20-foot deep stormwater infiltration trenches, constructing two retaining walls, installing new street lighting, performing traffic analysis for construction staging, preparing proposed ROW descriptions and exhibits, and implementing a public awareness program.

EAST STADIUM BOULEVARD

Led field surveying operations for the replacement design of two structures over State Street and the Ann Arbor Railroad, six MSE wall runs, extension of a pedestrian tunnel, reconstruction of 2,200 feet of roadway, water main relocation, sanitary sewer relocation, stormwater detention and quality improvement, street lighting, landscaping, detour route studies and plans, ROW plats and descriptions, and construction assistance.

CITY OF JACKSON, MICHIGAN

2018 WATER MAIN REPLACEMENT PROGRAM

Engineering services, surveying, preparation of bid plans, and detailed design and construction services for the upgrade of the Essex Heights subdivision, Crescent Road from West Avenue to Fourth Street, and Edgewood Street from Michigan to North. Responsible for leading field surveying operations.

MONROE COUNTY ROAD COMMISSION | MONROE COUNTY, MICHIGAN

EXETER ROAD OVER LITTLE SWAN CREEK

Led the field surveying operations for this MDOT-administered Local Agency Project involving replacing the bridge and approach pavement on Exeter Road over Little Swan Creek with a precast concrete box culvert.

ODOT | CUYAHOGA COUNTY, OHIO

BRIDGE REHABILITATION, SR 91 OVER A

IGOR SCHROTT, PS

SENIOR SURVEYOR

BRANCH OF CHAGRIN RIVER, CUY-91-8.55, PID 92023
Led surveying operations for the rehabilitation of the bridge carrying SR-91 over a Branch of Chagrin River by replacing the superstructure with new prestressed concrete box beams and composite concrete deck.

ODOT | WOOD COUNTY, OHIO

WOOD COUNTY BRIDGE REPLACEMENTS,
WOO-51-0.42/1.78/2.16/3.03, PID 90127
Led the field surveying operations for the replacement of four structures in the County with precast concrete 3-sided and box culverts; approach roadway design; and ROW plan preparation.

ODOT | SANDUSKY COUNTY, OHIO

BRIDGE REPLACEMENTS, SAN-51-0.47; SAN-101-6.95/8.15; SAN-590-8.46, PID 84061
Led field surveying operations for the replacement of four structures with precast concrete box culverts; approach roadway design; and ROW plan preparation.

ODOT | CINCINNATI, OHIO

HISTORIC STONE ARCH REHABILITATION, HAM-52-32.57/37.88/37.99, PID 77907
Led field surveying operations for the rehabilitation of a historic stone arch structure, the rigid lining/replacement of portions of an 84-inch diameter culvert, and the cured-in-place lining of a 36-inch culvert on US-52.

ODOT | HENRY COUNTY, OHIO

SR 281 OVER ROCKY FORD CREEK; SR 281 OVER ASH CREEK,
HEN-281-9.69; WOO-281-12.93; PID 86965
Led field surveying operations for the replacement of a structure on SR-281 with a precast concrete box culvert; and replacement of a bridge on SR-281 with a single-span, composite prestressed concrete box beam bridge.

ODOT | TOLEDO, OHIO

I-75 RECONSTRUCTION AND WIDENING, LUC-75-4.52, PID 77254
Widened and upgraded 2.8 miles of I-75 through Toledo from Detroit Avenue to Lagrange Avenue and improved interchanges, including the interchange with I-475. Responsible for supplemental survey, resolving existing alignments and property lines, and developing proposed ROW plans for the entire project; and for final bridge design of two mainline structures. Responsible for leading field surveying operations.

ODOT | GIRARD, OHIO

I-80 WIDENING, MAH/TRU-80-4.50/0.00, PID 77260
Widening of I-80 to six lanes, interchange improvements, four bridge widenings, and the rehabilitation of 10 other structures. Led field surveying operations.

OHIO TURNPIKE INFRASTRUCTURE COMMISSION TIC | PORTAGE COUNTY, OHIO

PORTAGE/BRADY LEAP PUMP STATION, PORTAGE SERVICE PLAZA GRINDER AND WELL
Involved in the analysis and recommendation of feasible measures for preventing blockage in the 6-inch force main near State Route 44. A maintenance schedule was developed, cost estimates for feasible options were analyzed, and a sanitary sewer grinder station was designed. Topographic survey of the existing service plaza in the vicinity of the sanitary sewer was performed as part of the project.

CITY OF TOLEDO, OHIO

TOLEDO WATERWAYS INITIATIVE - PHASE II MADISON SEWER
Led field surveying operations for this project which included preparing an alternative study, performing a survey, and developing construction documents associated with eliminating a CSO to the Maumee River at Madison Avenue in downtown Toledo. The project involved the design and specifications for relocating an 18-inch combined sewer to the West Side Interceptor via trenchless construction techniques as well as a storm sewer separation.

YEARS OF EXPERIENCE
28 years — Fishbeck
28 years — total

EDUCATION
BS in Agricultural Engineering, Michigan State University

REGISTRATIONS/ CERTIFICATIONS
Professional Engineer – Michigan

MEMBERSHIPS
American Society of Agricultural and Biological Engineers

MICHELLE NITENGALE, PE

SENIOR CIVIL ENGINEER | SURVEY SPECIALIST

Michelle is a civil engineer/survey specialist in the surveying department. She is trained in using CAiCE™, a database software required for MDOT surveys, MicroStation, open roads designer, and AutoCAD Civil 3D and Land Desktop. Responsibilities include preparation of legal descriptions, graphics coordinator, QA/QC, processing field information into base and final drawings, coordination with engineering staff, and preparing survey submittal documents.

Michelle also has a variety of experience in design and construction of urban and rural drainage projects. This experience includes technical assistance in calculations, computer modeling, and report and specification writing.

EXPERIENCE

MDOT | WAYNE AND OAKLAND COUNTIES, MICHIGAN
DESIGN SURVEY I-696/I-275/M-5

Provided mapping used for pavement repairs, HMA overlay, drainage, guardrail and bike path reconstruction, and signal upgrades at the 6 Mile Road, 7 Mile Road, and 8 Mile Road intersections. Fishbeck worked with another firm to develop a Mobile LiDAR work plan to collect data from over 50 miles of road lanes on a compressed schedule. More than 900 scan acquisition and validation targets were set. GPS was used for horizontal locations, and digital leveling was used for vertical locations. Data was merged into one MicroStation DGN and completed in approximately 12 weeks.

MDOT | GRAND RAPIDS, MICHIGAN
M-6 RECONSTRUCTION

Design and survey services for inlay rehabilitation of 3.2 miles of M-6. The project was designed as alternate bid for concrete and HMA pavement. Mobile LiDAR was used to collect survey data for a comprehensive review of geometric elements performed. Improvements were made to super elevation, vertical clearance, and drainage. This project design was expedited to advance the construction season by one year due to rapidly deteriorating pavement.

MDOT | KENT COUNTY, MICHIGAN
M-11 (28TH STREET) DESIGN SURVEY

The project included setting primary horizontal control by GPS observations, vertical control, legal alignment, mapping, and structure survey of over one-half mile of urban trunk line. Portfolios were prepared for road design and structure surveys.

MDOT | CITY OF BENTON HARBOR, BERRIEN COUNTY, MICHIGAN
I-94 BL (MAIN STREET) FROM THE BICENTENNIAL BRIDGE TO NORTH FAIR AVENUE (M-139)

Design for reconstruction of 1.7 miles of Main Street through downtown Benton Harbor including water main, sanitary sewer, storm sewer, curb and gutter, sidewalks, retaining walls, landscaping (streetscape), lighting, traffic signals, and two roundabouts.

MDOT | KALAMAZOO COUNTY, MICHIGAN
M-43 PUMP STATION REPLACEMENT

Design for a new stormwater pump station and demolishing the existing pump station. Services included hydrology and hydraulic design of the inlet and discharge system to convey a 50-year flood event to the Kalamazoo River. The new pump station was designed to convey 9,000 gpm with axial flow submersible pumps. The project also included ROW plans and topographic survey.

MDOT | LENAWEE COUNTY, MICHIGAN
US-223 FROM RODESILER ROAD TO LENAWEE COUNTY LINE

fishbeck

MICHELLE NITENGALE, PE

SENIOR CIVIL ENGINEER | SURVEY SPECIALIST

Topographic survey of 1.5 miles of road including horizontal and vertical control, drainage structure information, and full mapping within the ROW.

MDOT | KALAMAZOO COUNTY, MICHIGAN

I-94 CONCRETE INLAY, M-51 TO EAST OF THE KALAMAZOO COUNTY LINE

Provided supplemental survey for over 10 miles of 6-lane expressway. The project included adding horizontal and vertical control, bridge under clearance information, drainage structure information, and spot elevations within the ROW.

MDOT | VAN BUREN COUNTY, MICHIGAN

M-37 FROM 108TH STREET TO 76TH STREET

Over 5 miles of design topographic survey for rehabilitation and reconstruction of existing 2- and 3-lane roadway. The project included adding horizontal and vertical control and full mapping within ROW for the entire project.

MDOT | VILLAGE OF HESPERIA, HOLTON, SHERIDAN, DAYTON, AND DENVER TOWNSHIPS, OCEANA AND NEWAYGO COUNTIES, MICHIGAN

M-120, FROM MARVIN ROAD NORTHEASTERLY TO M-20

Data management for design rehabilitation of 11.8 miles of existing 2-lane roadway and reconstruction of 0.5 miles within the Village. The rehabilitation included design surveys, bituminous base crushing and shaping, approaches, intersection improvements, storm sewer design, water main design, minor drainage improvements, safety items, and permanent pavement marking and signage.

MDOT | BRANCH COUNTY, MICHIGAN

I-69, 1.5 MILES SOUTH OF US-12 TO NORTH OF STATE ROAD

Survey data management for reconstruction of 3.1 miles of freeway, upgraded ramps and guardrails, replaced ROW fence and delineators, cleaned and videotaped culverts, resurfaced ramps, MOT plan for road and bridges, and updated interchanges to current standards.

BERRIEN COUNTY, MICHIGAN

M-63 FROM THE BLOSSOM ROAD BRIDGE TO NORTH OF THE KLOCK ROAD INTERCHANGE

Survey data management for reconstruction design of 1.1 miles including storm sewer design, drainage improvements, safety items, permanent pavement markings and signage, and removal and replacement of an existing interchange with an at-grade intersection. Provided road design surveys, bridge design surveys, and surveys for ROW acquisition of four bridge removals and one bridge replacement. Also responsible for ROW tasks including preparing marked final ROW plans, preparing property legal instruments, and obtaining preliminary title commitments.

MDOT | MUSKEGON COUNTY, MICHIGAN

US-31, NORTH OF STERNBERG ROAD TO NORTH OF M-46

Survey data management for design survey and pavement condition survey necessary to perform the design work, which involved reconstruction of 4.4 km of southbound US-31, storm sewer reconstruction, pavement repairs and diamond grinding, safety upgrades (guardrail and superelevation correction), and pavement markings.

M-120 OVER THE MIDDLE CHANNEL OF THE MUSKEGON RIVER (SUBS TO URS)

Road design and hydraulic survey data management for bridge and approach replacement.

US-31 (SOUTHBOUND) OVER THE SOUTH BRANCH OF THE MUSKEGON RIVER, CONCRETE OVERLAY (SUBS TO URS)

Road design survey data management for bridge deck reconstruction.

MDOT | LANSING, MICHIGAN

I-96 FROM M-43 TO THE GRAND RIVER

Design survey data management for roadway reconstruction.

YEARS OF EXPERIENCE
10 years — Fishbeck
17 years — total

EDUCATION
BS in Surveying Engineering, Ferris State University

REGISTRATIONS/ CERTIFICATIONS
Professional Land Surveyor – Michigan

HAZWOPER Site Worker

CFR 1910.146 Confined Space Entry Training

MEMBERSHIPS
Member, Michigan Society of Professional Surveyors

CASEY VEITENGRUBER, PS

SENIOR SURVEYOR

Casey has provided GPS/CAiCE data processing services for several large MDOT design, hydraulic, structure, photo supplemental, and ROW survey projects. His experience also includes field work in topographic, boundary, and construction staking. In 2008, he was trained in the field by Geodetic Specialists Inc. prior to serving as a crew chief for MDOT's 2008-2009 Height Modernization Programs in the Southwest Region and lower Michigan.

EXPERIENCE

CITY OF ANN ARBOR, MICHIGAN
SCIO CHURCH ROAD FROM MAPLE ROAD TO DELAWARE DRIVE

Design survey of approximately 0.4 miles for sidewalk design. Provided topographic mapping, ROW survey, horizontal and vertical control for length of project.

ALLEN CREEK RAILROAD BERM OPENING AND TRAIL EXTENSION

Construction engineering services included project engineering, office technician, construction staking, and field inspection for installation of side-by-side large precast box culverts for stormwater control, and pedestrian access extension to the border-to-border trail system under the existing railroad berm. The project also involved extensive coordination with MDOT Office of Rail and Amtrak on design aspects and construction impacts to facilities owned and operated by the two entities.

WASHTENAW COUNTY ROAD COMMISSION, MICHIGAN
ANN ARBOR-SALINE ROAD BETWEEN OAK VALLEY DRIVE AND WEST EISENHOWER PARKWAY

Design survey and construction staking for 0.75 miles of roadway. The south end of the project was a mill and fill and the north end was full concrete reconstruction. Fishbeck provided design and survey services for all road construction; sidewalk extensions with ADA ramp upgrades; permanent signing and pavement marking; drainage; and pedestrian and vehicular maintaining traffic plans. Provided horizontal and vertical control for length of project.

DIXBORO SHARED USE TRAIL

Design survey of two miles of HMA shared use path on University of Michigan property including multiple timber boardwalks, culvert design, pavement markings, and signing. The shared use path connects Geddes Road to the University's Matthaei Botanical Gardens. Provided horizontal and vertical control for length of project.

CITY OF FARMINGTON HILLS, MICHIGAN
BOTSFORD COMMONS BRIDGE

Alignment and construction staking for bridge, and removal limits and new sidewalks.

MDOT | OAKLAND COUNTY, MICHIGAN
M-5 NORTH OF MAPLE ROAD AT RAILROAD

Engineer staking for the permanent removal of the existing railroad crossing with construction of a non-reinforced concrete roadway in its place. Verified existing horizontal and vertical control prior to construction.

MDOT | VILLAGE OF CLARKSTON, INDEPENDENCE AND BRANDON TOWNSHIPS, OAKLAND COUNTY, MICHIGAN
M-15 FROM DIXIE HIGHWAY TO WOLFE ROAD

Engineer staking to rehabilitate 8.65 miles of M-15 from Dixie Highway to Wolfe Road. The work will included HMA cold-milling, detail 7 and 8 joint repairs, trenching, HMA resurfacing, pavement markings, and placing ADA-compliant concrete sidewalk ramps with decorative concrete in downtown Clarkston.

fishbeck

CASEY VEITENGRUBER, PS

SENIOR SURVEYOR

CITY OF ST. CLAIR SHORES, MICHIGAN

ELMDALE STREET RECONSTRUCTION

Design survey for road reconstruction project on Elmdale Street from 11 Mile to Hazelwood. Fishbeck provided topographic survey of existing road for reconstruction. Established horizontal and vertical control for the project. Performed construction staking including new sidewalk, curb and gutter, and storm sewer.

LANSE STREET RECONSTRUCTION

Design survey for road reconstruction project on Lanse Street from Greater Mack to east end of Rodgers Elementary School. Fishbeck provided topographic survey of existing road for reconstruction. Established horizontal and vertical control for the project. Performed construction staking including new sidewalk, curb and gutter, and storm sewer.

CITY OF FARMINGTON HILLS, MICHIGAN

10 MILE ROAD FROM ORCHARD LAKE ROAD TO FARMINGTON ROAD

Design survey and construction staking for 0.90 miles of roadway. Provided topographic mapping and horizontal and vertical control for length of project. Fishbeck provided design and survey services for road construction of HMA pavement widening, crush and shape, HMA overlay, ADA sidewalk design, roadside ditching and reditching, and storm sewer repairs.

HOLLYWOOD WESTHILL SUBDIVISION

Design survey for approximately 2.9 miles of roadway located south of 10 Mile Road and east of Orchard Lake Road. Provided topographic mapping and horizontal and vertical control for length of project. Fishbeck provided design services for full HMA pavement, drive tie-ins, and drainage improvements including replacement of cross culverts.

MDOT | CITY OF SOUTHFIELD, MICHIGAN

I-696 WALL MONITORING DESIGN SURVEY FROM US-24 (TELEGRAPH ROAD) TO I-75

This project included design survey to determine the amount of tilt on nine miles of retaining wall along I 696. Control points were set in the shoulder near stamped stationing in the pavement, and a mag nail was installed. Used reflectorless total stations and laser scanning methods to determine the amount and direction of tilt of the retaining walls, which were up to 26 feet high. Prepared a full spreadsheet report detailing the survey and analysis.

MDOT | GRATIOT COUNTY, MICHIGAN

US-127 FROM WASHINGTON TO BEGOLE

Design survey for 8.5 mile-long project to rehabilitate the US-127 freeway pavement. This project included main lines as well as all ramps in the project area.

MDOT | CITY OF ALBION, MICHIGAN

PROJECT NAME

Design survey for 0.37-mile-long reconstruction of the existing brick roadway. Horizontal and vertical control was provided for length of project.

MACOMB COUNTY PUBLIC WORKS OFFICE, MICHIGAN

MARTIN SANITARY DIVERSION DRAINAGE DISTRICT IN-SYSTEM STORAGE

Fishbeck performed conventional mapping along with 3D laser scanning of an existing roadway and sewer for design of in-system storage within the martin drain. Established horizontal and vertical control for the project and provided ROW along Harper and Bon Huer.

8-1/2 MILE RELIEF DRAIN DRAINAGE DISTRICT 9 MILE PUMP STATION

Fishbeck performed conventional mapping along with 3D laser scanning of the roadway and underground concrete channels. A survey of the retention treatment basin was performed along with a locating and identifying buried utilities. Established horizontal and vertical control for the project and provided ROW along 9 Mile Road.

Leigh C. Merrill, P.E.		
Staff Education and Experience Report		
EMPLOYEE NAME	**TITLE**	**ROLE ON THIS PROJECT**
Leigh C. Merrill, P.E.	Project Manager	Design Project Manager
COMPANY NAME	**YEARS OF EXPERIENCE**	
DLZ	3 with company 12 with other firms	
EDUCATION: degree, year, school (inc. city and state of school)		
B.S. Civil Engineering, Michigan State University, 2007; MBA, Wayne State University, 2018		
LICENSES AND REGISTRATIONS/CERTIFICATIONS/SPECIAL TRAINING		
Professional Engineer: Michigan #6201061025, 2014		
Mr. Merrill is responsible for engineering, coordination, and quality oversight on projects in transportation areas. Completed projects have ranged from local municipal road projects to MDOT administered bridge reconstruction projects. Mr. Merrill's duties include project planning, project design in accordance with MDOT standards, troubleshooting during construction, meeting and coordination schedules with the Contractor, and oversight of both design and field personnel. Mr. Merrill came to DLZ after tenures with four other firms, where he was responsible for design and coordination of road and bridge reconstruction projects.		
Specific Experience ***Work Performed with Previous Employer**		
MONTHS/YEARS/ CONSTRUCTION BUDGET	**PROJECT I.D./ LIMITS OF CONSTRUCTION**	**ROLE IN THE SERVICE & PROJECT DESCRIPTION**
2020-2021 $1,600,000	Evergreen Road Resurfacing, Wayne County, Dearborn, Michigan.	**Project Manager** - Project involved resurfacing of approximately 1.5 miles of a 6-lane boulevard roadway on a busy thoroughfare. Project included resurfacing of the roadway surface, concrete base course repairs, ADA bus stop, maintenance of traffic, pavement marking, permanent signage, and minor storm sewer system repairs. **Client Contact:** Bashar Hanna, 313.224.7813 **Service Budget:** $ 55,000 **Role of Vendor:** Prime
2020-2021 $2,400,000	Beech Daly Road Resurfacing, Wayne County, Detroit, Michigan	**Project Manager -** Project involved resurfacing approximately 1.2 miles of a busy 5-lane roadway. Project included resurfacing of the exiting HMA surface, concrete base course repairs, ADA ramp improvements, maintenance of traffic, pavement markings, permanent signage, and minor storm sewer system repairs. **Client Contact:** Bashar Hanna, 313.224.7813 **Service Budget:** $ 66,000 **Role of Vendor:** Prime
2022 – Present $9,000,000	E. Medical Center Dr. Bridge Widening, City of Ann Arbor, Ann Arbor, Michigan.	**Project Manager** - Project involved widening the existing 4-lane bridge to provide an additional entrance lane to the University of Michigan Medical Campus. The bridge is over a railroad whose ROW is shared between MDOT and Amtrak, requiring thorough communication to ensure the project could proceed on the proposed schedule. The project also involved resurfacing of the roadway on both sides of the bridge, as well as the relocation and coordination of extremely sensitive communication conduits that serviced the UM hospital. Extensively detailed maintenance of traffic plans was required to provide the least delay to critical patients and ambulances accessing the hospital. **Client Contact:** Francisca Chan, 734.794.6410 ext. 43701 **Service Budget:** $ 1,080,000 **Role of Vendor:** Prime

2022 – Present $1,500,000	W. Jefferson Road Resurfacing, Wayne County, Wyandotte, Michigan	**Project Manager** - Project involved resurfacing of approximately 0.6 miles of a 4-lane boulevard roadway on a busy thoroughfare. Project included resurfacing of the roadway surface, concrete base course repairs, maintenance of traffic, pavement marking, permanent signage, and minor storm sewer system repairs. **Client Contact:** Bashar Hanna, 313.224.7813 **Service Budget:** $62,600 **Role of Vendor:** Prime
2022 – Present $1,700,000	Outer Drive Resurfacing, Wayne County, Melvindale, Michigan.	**Project Manager** - Project involved resurfacing of approximately 0.6 miles of a 4-lane boulevard roadway on a busy thoroughfare that crosses under a Norfolk Southern railroad bridge. Project included resurfacing of the roadway surface, additional cross-over turn lane construction, concrete base course repairs, maintenance of traffic, pavement marking, permanent signage, railroad coordination, and minor storm sewer system repairs. **Client Contact:** Bashar Hanna, 313.224.7813 **Service Budget:** $70,500 **Role of Vendor:** Prime
2022 – Present $1,200,000	Hannan Road Resurfacing, Wayne County, Wayne, Michigan	**Project Manager** - Project involved resurfacing of approximately 0.89 miles of a 2-lane roadway that included an at-grade crossing of a CS Railroad. Project included resurfacing of the roadway surface, concrete base course repairs, maintenance of traffic, pavement marking, permanent signage, railroad coordination, and minor storm sewer system repairs. **Client Contact:** Bashar Hanna, 313.224.7813 **Service Budget:** $59,600 **Role of Vendor:** Prime
2022 – Present $3,600,000	Mt. Elliott Street Reconstruction, City of Detroit, Detroit, Michigan.	**Project Manager** – Construction Engineering. Project involved reconstruction of 0.54 miles of roadway including storm sewer improvements and sidewalk reconstruction. Last minute gas main and water main replacements required extensive coordination with the project's contractor and the client. **Client Contact:** Orza Robertson, 313.467.0560 **Service Budget:** $190,900 **Role of Vendor:** Prime
2022 – Present $15,000,000	Joe Louis Greenway Construction, City of Detroit, Detroit, Michigan.	**Project Manager** – Construction Engineering. Project involved construction of 1.02 miles of and eventual 29.3-mile loop of concrete pathway that provided critical connections between Detroit neighborhoods. Project involved significant cleanup of the project corridor, extensive landscaping, and construction of dual concrete pathways. Construction oversight and Construction Administration, including payment application production, extensive document reviews and record-keeping, and Contractor adherence to hazardous material handling and disposal were required due to the high-profile nature of the project and the project's funding sources. **Client Contact: David Tobar,** **Service Budget:** $521,700 **Role of Vendor:** Prime
2021 $140,000	Civic Center Emergency Drive, West Bloomfield Township, West Bloomfield, Michigan.	**Project Manager** – The project included alignment and construction of an emergency access drive for the Township's Civic Center complex. Design elements included the HMA roadway, drainage, landscaping, and utilities. **Client Contact:** Amy Neary, 248.451.4818 **Service Budget:** $42,300 **Role of Vendor:** Prime

Carrie L. Hamel, P.E.		
Staff Education and Experience Report		
EMPLOYEE NAME	**TITLE**	**ROLE ON THIS PROJECT**
Carrie L. Hamel, P.E.	Structural Engineer IV	Bridge Reviews
COMPANY NAME	**YEARS OF EXPERIENCE**	
DLZ	8 with company 9 with other firms	
EDUCATION: degree, year, school (inc. city and state of school)		
B.S. Civil Engineering, 2004, Michigan Technological University, Houghton, Michigan		
LICENSES AND REGISTRATIONS/CERTIFICATIONS/SPECIAL TRAINING		
Professional Engineer: Michigan, 2009, #6201056734; Wisconsin, 2015, #44066-6 MDOT/WMU Two Span Continuous Bridge Steel Plate Girder Design Workshop, 2020 MDOT/WMU Prestressing Design of Beams, 2017 MDOT/CTT Bridge Load Rating Webinars, 2016 WisDOT Bridge Inspection Update Training, 2015 Certification of FHWA-NHI- Safety Inspection of In-Service Bridges, 2013 Certification of FHWA-NHI -LRFD for Highway Bridge Superstructures (Steel and Concrete), 2007 Certification of FHWA-NHI- LRFD for Highway Substructures and Earth Retaining Structures, 2007 Certification of FHWA-NHI-Micropile Design and Construction, 2006 Certification of FHWA-NHI-Design and Construction of Driven Pile Foundations, 2006		
As a structural engineer with more than 17 years of experience, Ms. Hamel is responsible for the design of bridges, boardwalks, retaining walls and other structures. Additionally, Ms. Hamel uses her bridge design experience and training to perform load ratings and for bridge scoping. Previously, as a Licensed Specialist Engineer in the Special Structures Unit at Michigan Department of Transportation (MDOT), Ms. Hamel carried out a very wide variety of duties including design and review of bridge replacements, bridge rehabilitations, retaining walls, emergency bridge repairs due to high load hits and accelerated deterioration, and moveable bridge structures. During her tenure at MDOT, Ms. Hamel was also a Project Manager for movable span bridge design contracts.		
Specific Experience ***Work Performed with Previous Employer**		
MONTHS/YEARS/ CONSTRUCTION BUDGET	**PROJECT I.D./ LIMITS OF CONSTRUCTION**	**ROLE IN THE SERVICE & PROJECT DESCRIPTION**
2022 $9,000,000 (est.)	East Medical Center Drive Bridge Widening, City of Ann Arbor, Michigan	**Senior Bridge Engineer -** Project involved widening the existing 4-lane bridge to provide an additional entrance lane to the University of Michigan Medical Campus. The bridge is over a railroad whose ROW is shared between MDOT and Amtrak, requiring thorough communication to ensure the project could proceed on the proposed schedule. Bridge work involved substructure widening, pier cap replacement, existing steel girder rehabilitation, new beams for bridge widening and new deck. Work also included crash wall extension and slope stabilization. **Client Contact:** Francisca Chan, 734.794.6410 ext. 43701 **Service Budget:** $ 1,080,000 **Role of Vendor:** Prime
2021 - Present $1,489,000	M-21 (Court St) over Abn CSX RR, City of Flint, Genesee County, Michigan Department of Transportation (JN 201637)	**Project Manager** – Design services for the removal of the existing bridge at M-21 (Court St) over the abandoned CSX railroad in the City of Flint, MI. The existing structure will be replaced with a 14 ft wide by 12 ft long precast concrete box culvert to be used as a pedestrian structure for a proposed City of Flint trail project. Additional work includes road design, MOT and TMP. **Client Contact:** MDOT-Talia Belill, 517.230.6262 **Service Budget:** $234,500 **Role of Vendor:** Prime

		Carrie L. Hamel, P.E.
2020 - Present	MDOT As-Needed Bridge Design CADD Services (Various JN's)	**Project Manager –** As-Needed CADD services for various MDOT In-House bridge design projects and bridge design squads. Projects to date have included RFA rehabilitation projects and culvert replacements. Culvert replacement projects include both precast box and steel multi-plate. The culvert replacement projects have also included scour countermeasures. **Client Contact:** MDOT-John Nadjarian, 517.243.4902 **Service Budget:** $305,815 **Role of Vendor:** Prime
2019 - 2021 $1,024,000	M-66 over Monroe Creek, South Arm Township, Charlevoix County, Michigan Department of Transportation (JN 204202)	**Lead Structural Engineer** – Replacement of a 72-inch diameter CMP and reinforced concrete culvert and associated road work. The proposed culvert consists of a 17'-3" wide by 11'-0" tall Aluminum Multi-Plate Pipe Arch culvert. DLZ was responsible for preparing culvert and road plans along with a cost estimate and the remainder of the contract documents. **Client Contact:** MDOT-Matthew Radulski, 989.732.3832 **Service Budget:** $154,162 **Role of Vendor:** Prime
2015 - 2019 $6,182,000	Rehabilitation of five structures on I-94, Wayne County, Metro Region, Michigan Department of Transportation, Taylor, Michigan (Various JN's)	**Lead Structural Engineer** – Rehabilitation work on I-94 EB and WB over Merriman Road and Middlebelt Road, and I-94 EB over Beech Daly Road. Work included epoxy overlays, deck and barrier patching, joint and barrier replacements, beam end repairs (including FRP), substructure and slope repairs, and load rating. Work also included freeway lighting design, and geotechnical engineering and preparation of the PACS for the replacement of the I-94 WB structure over Ecorse Road. **Client Contact:** MDOT-Aaron Mattson, 517.335.4567 **Service Budget:** $300,780 **Role of Vendor:** Subconsultant
2016 - 2018 $10,000,000	Marquette Hospital Transportation Improvements Project, US-41/M-28, City of Marquette, Michigan (JN MQ17-025)	**Lead Structural Engineer** – Design services for two modern roundabouts at US-41/M-28 and Hospital Drive and US-41/M-28 and 7th/Grove Street to provide direct access from US-41/M-28 to Marquette's new hospital. Work for this project included the design of several hydraulic structures, including a 3-sided precast concrete arch; precast box with cast-in-place concrete baffles for velocity control; a triple-box culvert; large diameter concrete pipe; and a cast-in-place concrete overflow inlet structure. **Client Contact:** City of Marquette-Dennis Stachewicz, 906.225.8377 **Service Budget:** $784,900 **Role of Vender:** Prime
2017 - 2018 $6,700,000	US-41/M-28 from Brickyard Road to CR 492, Marquette Township, Michigan	**Lead Structural Engineer** – Design services for the reconstruction of US-41 from 600' west of Brickyard Road to 500' east of CR 492, including two roundabouts and multi-use tunnel under US-41. Structural design included precast concrete tunnel under US-41 that is 164' in length, measuring 14'-wide x 12' high. **Client Contact:** MDOT-Joel Kauppila 906.485.4270 **Service Budget:** $985,000 **Role of Vender:** Prime

Charles Fawcett, P.E., PTOE		
Staff Education and Experience Report		
EMPLOYEE NAME	**TITLE**	**ROLE ON THIS PROJECT**
Charles Fawcett, P.E., PTOE	Project Manager	Lead Traffic Engineer
COMPANY NAME	**YEARS OF EXPERIENCE**	
DLZ	12 with company 9 with other firms	
EDUCATION: degree, year, school (inc. city and state of school)		
B.S. Civil Engineering, 2000, University of Akron, Ohio		
LICENSES AND REGISTRATIONS		
Professional Engineer – Michigan, 2015, #66201062105; Illinois, 2005, #062-058424; Indiana, 2018, #PE11800255; Ohio, 2019, #PE.84998; Professional Traffic Operations Engineer; 2012		
Mr. Fawcett has 21 years of experience in civil and transportation engineering. His background includes signal operations/capacity analysis, work zone mobility analyses, traffic management plans, traffic impact studies, data collection management, and traffic signal plans. He has performed traffic capacity analyses for many roads under MDOT jurisdiction.		
Specific Experience		
MONTHS/YEARS/ CONSTRUCTION BUDGET	**PROJECT I.D./ LIMITS OF CONSTRUCTION**	**ROLE IN THE SERVICE & PROJECT DESCRIPTION**
2022 $9,000,000 (est.)	East Medical Center Drive Bridge Widening, Ann Arbor, Michigan	**Lead Traffic Engineer -** Project involved widening the existing 4-lane bridge to provide an additional entrance lane to the University of Michigan Medical Campus. The project also involved resurfacing of the roadway on both sides of the bridge, as well as the relocation and coordination of extremely sensitive communication conduits that serviced the UM hospital. Extensively detailed maintenance of traffic plans was required to provide the least delay to critical patients and ambulances accessing the hospital. **Client Contact:** Francisca Chan, 734.794.6410 ext. 43701 **Service Budget:** $ 1,080,000 **Role of Vendor:** Prime
08/20 – 02/21 $11,000,000	US-23 Rehab and Reconstruction of US23/M-13 Interchange, Arenac County, Michigan	**Lead Traffic/Mobility Engineer** - Design services include construction of pavement repairs, placement of an asphalt crack relief layer and HMA overlay of existing roadway. Work includes reconstruction of US-23 Connector/M-13 interchange from existing configuration to an at grade roundabout. Work includes removal of a bridge over M-13. **Client Contact:** MDOT – Don Matula, 989.233.5511 **Service Budget**: $823,000 **Role in Service**: Prime
8/20 – 11/21 $25,250,000	Resurfacing of I-94 from M-29 to Countyline Road, Macomb County, Michigan	**Lead Traffic/Mobility Engineer** - Project is located on I-94 to Countyline Rd in Chesterfield and Lenox Twps. For a length of 6.14 miles. Roadway rehabilitation will consist of two course mill and resurface, drainage improvements, signal modernization and other miscellaneous work. Work also includes bridge approach design and maintenance of traffic for 4 structures. **Client Contact**: MDOT – Mohammad Huque, 586.907.4270 **Service Budget**: $1,187,579 **Role in Service**: Prime

		Charles Fawcett, P.E., PTOE
09/19 – 12/20 $9,100,000	US-41/M-28 from MacInnes Drive to Isle Royale Street, Houghton, Michigan	**Lead Traffic/Mobility Engineer**– Design services for the reconstruction of US-41/M-28 Project includes geometric improvements, TMP, maintenance of traffic, lighting, and drainage improvements following MS4 guidelines. This project also includes working with the City of Houghton to construct sanitary and watermain improvements. **Client Contact**: MDOT-Joel Kauppila, 906.485.4270 **Service Budget**: $676,000 **Role in Service**: Prime
09/19 – 12/20 $8,100,000	US-41/M-28 from Wright Street to Front Street, Marquette, Michigan	**Traffic Engineer**– Design services for the resurfacing of US-41/M-28 from Wright Street to Hospital Drive, and reconstruction of US-41/M-28 from Grove Street to Front Street. Project includes access management improvements, crown/superelevation correction, TMP, maintenance of traffic, and drainage design following MS4 guidelines **Client Contact**: MDOT-Joel Kauppila, 906.485.4270 **Service Budget**: $796,300 **Role in Service**: Prime
10/17 – 03/21 $80,000,000	I-275 Ford Road to Five Mile Road, Wayne County, Michigan	**Mobility/Safety Studies** for the design of five miles of freeway rehabilitation to include pavement evaluation, milling, overlay and shoulder reconstruction. The project also includes geometric assessment to evaluate opportunity to make required improvements, drainage assessment and minor culvert extensions as necessary and upgrades to the ditch. Project subsequently was modified to full reconstruction from rehabilitation. **Client Contact**: MDOT-Adam Penzenstadler, 313.375.2482 **Service Budget:** $5,230,000 **Role of Vendor**: Prime
2018 - 2019 $12,000,000	US-127, US-127BR to River Road, Mt. Pleasant, Michigan	**Mobility Analysis and Safety Studies –** for the design of five miles of rehabilitation on US-127 and US-127BR. The project includes under-clearance improvements at five locations on US-127, assessment of ramp geometrics, and strategic improvements at the M-20 interchange. Maintenance of traffic included crossing traffic from one side of the freeway to the other to perform resurfacing and reconstruction. The mobility analysis included modified traffic signal timings and temporary signals to accommodate detoured traffic. **Client Contact**: MDOT-Kimberly Hill, 989.574.8464 **Service Budget:** $913,000 **Role of Vendor**: Prime
2015-2018	Marquette Hospital Transportation Improvements TIS, Temporary Signal Analysis, and Work Zone Mobility Analysis, Marquette Michigan	**Traffic Engineer** – DLZ was retained by the City of Marquette to study and design transportation improvements for relocation of Marquette General Hospital. This work consisted of coordination with MDOT for modified access to US-41 and reviewing several alternatives for providing access to and from the proposed hospital site. The recommended improvements were carried through to design, including construction staging and work zone mobility analysis. Four existing and temporary traffic signals operated along US-41 during construction, and five total signalized intersections were studied. Mr. Fawcett prepared signal warrant analyses, left turn phasing analysis, corridor signal optimization/timing recommendations for construction phase, and signal timing recommendations. **Client Contact:** City of Marquette- Dennis Stachewicz, 906.225.8377 **Service Budget:** $785,000 **Role of Vendor:** Prime

Daniel Wiktorzak, P.E.		
Staff Education and Experience Report		
EMPLOYEE NAME	**TITLE**	**ROLE ON THIS PROJECT**
Daniel Wiktorzak, P.E.	Senior Civil Engineer	Traffic Signal Review
COMPANY NAME	**YEARS OF EXPERIENCE**	
DLZ	13 with company 6 with other firms	
EDUCATION: degree, year, school (inc. city and state of school)		
B.S., Civil Engineering, University of Illinois at Chicago (UIC), 2002		
LICENSES AND REGISTRATIONS/CERTIFICATIONS/SPECIAL TRAINING		
Professional Engineer: Illinois (2008), Michigan (2018), Ohio (2019), Wisconsin (2019) Traffic Signal Design and Operation (133121V) - National Highway Institute, 2020 Traffic Signals & ITS – Ohio Department of Transportation Traffic Academy, 2019 PSMJ Project Manager Training, 2015		
Mr. Wiktorzak has a strong background in Civil Engineering that includes traffic signal design, roadway design, utility design, drainage design, erosion control, site plans, and signage and striping plans. He is currently serving as Project Manager/Engineer for civil engineering and signal design projects.		
Specific Experience		
MONTHS/YEARS/ CONSTRUCTION BUDGET	**PROJECT I.D./ LIMITS OF CONSTRUCTION**	**ROLE IN THE SERVICE & PROJECT DESCRIPTION**
2022 $9,000,000 (est.)	East Medical Center Drive Bridge Widening, Ann Arbor, Michigan	**Traffic Signal Design-** Project involved widening the existing 4-lane bridge to provide an additional entrance lane to the University of Michigan Medical Campus. The bridge is over a railroad whose ROW is shared between MDOT and Amtrak, requiring thorough communication to ensure the project could proceed on the proposed schedule. The project also involved resurfacing of the roadway on both sides of the bridge, as well as the relocation and coordination of extremely sensitive communication conduits that serviced the UM hospital. Work included traffic signal upgrade as well as temporary signal design to accommodate complex maintenance of traffic phasing for the project. **Client Contact:** Francisca Chan, 734.794.6410 ext. 43701 **Service Budget:** $ 1,080,000 **Role of Vendor:** Prime
3/22 – 10/22 $665,000	M-43 at M-100, City of Grand Ledge, Michigan	**Traffic Signal Design QA/QC** – Task assignment as part of University Region As-Needed Design Services Contract. Task includes road and ROW survey, intersection widening, traffic signal modernization, pavement marking, signing, and ADA compliant sidewalk ramp design at M-43 and M-100. **Client Contact**: MDOT – Jonathan Harden, (989) 763-1509 **Service Budget**: $190,000 **Role in Service**: Prime
2/22 – 11/22 (est) $210,000	I-496 WB Off Ramp at Pennsylvania Ave., City of Lansing, Michigan	**Traffic Signal Design QA/QC** – Task assignment as part of University Region As-Needed Design Services Contract. Task includes design survey, traffic signal modernization design with low level signals, and ADA compliant sidewalk ramp design at I-496 WB Off Ramp at Pennsylvania Ave. **Client Contact**: MDOT – Jonathan Harden, (989) 763-1509 **Service Budget**: $50,000 **Role in Service**: Prime
3/21 – 11/22 (est) $350,000	Various Locations in the MDOT North Region, Michigan	**Traffic Signal Design QA/QC** - Survey and design services for upgrading vehicular and pedestrian detection at six (6) locations in the Traverse City and Gaylord TSC Areas. Also included was the modernization of existing pedestrian signals to countdown pedestrian signals and the design of ADA compliant sidewalk ramps. **Client Contact**: MDOT – Jackie Pethers, (810) 614-0002 **Service Budget**: $40,000 **Role in Service**: Prime
8/20 –10/22 $25,250,000	I-94 from M-29 to Countyline Road, Macomb County,	**Traffic Signal Design** - Design of cold milling and resurfacing of I-94 from M-29 to County Line Rd. Project includes three interchanges, weigh station ramps, Open Roads modeling, drainage condition assessment, multi-stage

	Michigan	maintenance of traffic, Transportation Management Plan, structure work at four locations, bridge approach replacement, five (5) traffic signal modernizations, temporary signal staging, and permanent pavement markings. **Client Contact**: MDOT – Mohammad Huque, (586) 907-4270 **Service Budget**: $1,187,579 **Role in Service**: Prime
6/20 – 10/22 $17,000,000	M-20 from US-127BR (Mission St.) to US-127, Isabella County, Michigan	**Traffic Signal Design** – Design services includes roundabout design, maintenance of traffic, traffic signal modernization and signal staging design, landscaping design, and environmental services for the reconstruction of 1.65 miles of M-20 in the city of Mt. Pleasant and Union Twp. Project originally included replacing existing traffic signals at US-127 ramps with dual lane roundabouts and improved access management near the interchange, but project scope was changed to modernize the existing traffic signals at the US-127 ramps and eliminate the roundabouts. **Client Contact**: Bergmann – Rob Leppala, (517) 348-5419 **Service Budget:** $583,000 **Role of Vendor**: Subconsultant
10/20 – 10/22	M-129 from 10 Mile to 18th Avenue, Sault Ste Marie, Chippewa County, Michigan	**Traffic Signal Design QA/QC** - Design of HMA crushing and shaping and HMA overlay on M-129 from 10 Mile Road north to 18th Avenue. Project includes Open Roads modeling, access management, drainage improvements, Transportation Management Plan, maintenance of traffic design, traffic signal work, signing and permanent pavement markings. **Client Contact**: MDOT – Cory Gardner, (906) 241-3955 **Service Budget**: $650,000 **Role in Service**: Prime
2017 - 2021 $80,000,000	I-275 Ford Road to Five Mile Road, Wayne County, Michigan	**Traffic Signal Design** - Design services for six (6) miles of freeway reconstruction including three interchanges. The project was combined with a Metro Region led freeway reconstruction and pavement repair project to the south and numerous MDOT designed bridge rehabilitations. Additionally, four (4) traffic signal modernizations, a bridge rehabilitation, and a bridge deck replacement were part of our design. Total project is $300 million. **Client Contact**: MDOT - Adam Penzenstadler, (313) 375-2482 **Service Budget:** $5,230,000 **Role of Vendor**: Prime
2019 $2,700,000	Kercheval Streetscape, City of Detroit, Michigan	**Traffic Signal Design** for streetscape construction project on Kercheval Ave, from Mt. Elliot Street to St. Jean includes roadway mill and resurfacing, creation of a two-way bicycle facility, curb and gutter modifications to incorporate "bump outs" and center-lane pedestrian islands refuge islands for traffic calming measures, sidewalk and Americans with Disabilities Act (ADA) ramp modifications, traffic signal and street light upgrades. Signal work included complete replacement of existing diagonal span installations at Kercheval Ave at Van Dyke St with a new mast arm configuration and Kercheval Ave at Grand Blvd with a box span configuration. The signals also included bicycle signalization as well as ITS communication equipment for the City of Detroit. **Client Contact**: Fishbeck-Katerina Kollar, (313)2933549 **Service Budget**: $194,800 **Role in Service**: Subconsultant
2020 $1,500,000	Conant Streetscape, City of Detroit, Michigan	**Traffic Signal Design** for streetscape construction project on Conant St, from Davidson Ave (M-8) to Carpenter St. Project includes roadway mill and resurfacing, curb and gutter modifications to incorporate "bump outs" and center-lane pedestrian islands refuge islands for traffic calming measures, sidewalk and Americans with Disabilities Act (ADA) ramp modifications, traffic signal and street light upgrades. Signal work for the intersections of Conant St at Charles St and Conant St at Carpenter Ave includes modernization of existing signals to accommodate new pedestrian crossings. **Client Contact**: Fishbeck-Katerina Kollar, (313)2933549 **Service Budget**: $193,500 **Role in Service**: Subconsultant

H. Jason Hughes, P.E.		
Staff Education and Experience Report		
EMPLOYEE NAME	**TITLE**	**ROLE ON THIS PROJECT**
H. Jason Hughes, P.E.	Project Manager	Senior Geotechnical Engineer
COMPANY NAME	**YEARS OF EXPERIENCE**	
DLZ	7 with company 13 with other firms	
EDUCATION: degree, year, school (inc. city and state of school)		
M.S. Civil Engineering (Geotechnical Specialization), 2001, The Ohio State University, Columbus, Ohio B.S. Civil Engineering (Construction Specialization), 1997, The Ohio State University, Columbus, Ohio		
LICENSES AND REGISTRATIONS/CERTIFICATIONS/SPECIAL TRAINING		
Professional Engineer: Ohio, 2004, #E 68827 PEC Premier SafeLand USA, #PEC100321595 OSHA 30-Hr Construction Ground Anchors and Anchored Wall Systems Constructability-Based LRFD for Geotechnical Features Deep Foundations - Drilled Shafts Stability Analysis of Embankment Dams Earth Retaining Structures: Selection, Design, Construction, and Inspection Stabilizing Slopes Using Non-Earthwork Methods LRFD Foundation Design		
Mr. Hughes has more than 20 years of experience in the fields of engineering and construction with project experience ranging from roadways and bridges to schools and hospitals. He has planned and executed geotechnical exploration programs for projects throughout Ohio and has prepared plans and specifications for projects from slope remediation to retaining walls and shoring. Mr. Hughes has also performed and supervised field inspection and testing of deep foundations, large retaining walls, tiebacks, and slurry wall construction. Mr. Hughes' construction and geotechnical field experience make him a valuable resource for constructability analysis and practical engineering solutions and recommendations.		

Specific Experience

MONTHS/YEARS/ CONSTRUCTION BUDGET	PROJECT I.D./ LIMITS OF CONSTRUCTION	ROLE IN THE SERVICE & PROJECT DESCRIPTION
2022 – Present $9,000,000	E. Medical Center Dr. Bridge Widening, City of Ann Arbor, Ann Arbor, Michigan.	**Geotechnical Engineer/Geotechnical Project Manager -** Performed geotechnical exploration for rehabilitation and widening of the existing 3-span bridge over the Michigan Line Railroad. Utilized micropile foundations for support of widened substructures to mitigate differential settlement with existing spread foundations and to reduce vibrations due to the nearby University of Michigan Hospital Cancer Center. Design included soil nail wall and concrete capped sheet pile wall for retaining the steep spill through abutment slopes. **Client Contact:** Francisca Chan, 734.794.6410 ext. 43701 **Service Budget:** $ 1,080,000 **Role of Vendor:** Prime
2018	Van Horn Road and Allen Road Improvements, City of Woodhaven, Wayne County, Michigan	**Geotechnical Engineer/Geotechnical Project Manage**r - Project consisted of approximately 3.3 miles of roadway improvements including pavement rehabilitation, widening, reconstruction, bridge replacement, new mast arms/signal poles, etc. DLZ performed the geotechnical exploration for the project which had an aggressive overall design schedule with only 2 months from start to finish (NTP to plan submittal). In order to meet the schedule, geotechnical information and preliminary recommendations were provided to the design team concurrently with the field work and continued to coordinate closely through the design process. DLZ utilized available historic soil boring and pavement core information to supplement the exploration and reduce the quantity of required new borings and cores. **Client Contact:** Michael Baker Intl., Steve Gravlin, PE, 313.670.3408 **Service Budget:** **Role of Vendor:** Subconsultant

		H. Jason Hughes, P.E.
2014-2016 ~$12 Million	FRA-270-51.50 US23/I-270 Interchange Project, Franklin County, Ohio	Geotechnical Project Manager – Geotechnical exploration including drilling, laboratory testing, engineering analysis, and report preparation for proposed interchange improvements. Site complexities included widening existing embankments that were up to 40 feet in height with the presence of weak and compressible soils such as peat and saturated silt and fine sand. Engineering evaluation and analysis included pavement subgrade and embankment stability and settlement. **Client Contact:** ODOT District 6 – Jeff Hipp, PE 740.833.8276 **Service Budget:** $1.2 Million **Role of Vendor:** Prime
2016 - 2018	I-75 Wetland Mitigation, CS 58151 – JN 127463C, Monroe County, Michigan	**Geotechnical Engineer** - The proposed project includes construction of two wetland mitigation sites for the adjacent I-75 re-construction, and replacement of a bridge for construction equipment access to one of the sites. The geotechnical exploration included drilling, in-situ infiltrometer testing, laboratory testing and report preparation.
2013-2014 ~$250 Million	I-70/I-71 South Innerbelt Project, Columbus, Ohio	Geotechnical Engineer – The project involves re-constructing approximately 10 miles of the existing highways, which includes reconfiguring interchanges and constructing additional lanes. The roadway improvements will include constructing new bridges, cut-and-cover tunnels, and retaining walls over 50 feet high. Assisted in geotechnical engineering analyses and recommendations for the East Interchange portion of the project. **Client Contact:** ODOT – Thomas Wester, 740.833.8000 MS Consultants – Tom Hubbard 614.896.7100 **Service Budget:** $3,244,472 **Role of Vendor:** Subconsultant
2015-2017	Portage River South Road Embankment Stabilization, Ottawa County, Ohio	Project Manager – The project involves stabilization of the existing roadway embankment for a grade-separation structure that carries Portage River South Road (CR-18) over the Ohio Turnpike. DLZ is performing a geotechnical landslide exploration to provide recommendations for stabilization of the roadway. **Client Contact:** Ottawa County Engineer's Office – Jim Moore, PE, 419.734.6777 **Service Budget:** $38,111 **Role of Vendor:** Geotechnical Consultant
2014	Summit Street Landslide, Licking County, Ohio	Geotechnical Engineer – DLZ performed a geotechnical exploration and provided concept level repair alternatives for an existing landslide along Summit Street Road Southeast in Madison Township, Licking County, Ohio. Proposed repair alternatives included drainage and earthwork measures to improve the global stability of the roadway. **Client Contact:** Licking County Engineer's Office – Jared Knerr, PE, PS, 740.671.5292 **Service Budget:** $19,880 **Role of Vendor:** Geotechnical Consultant
2013-Present	Ohio Canal Interceptor Tunnel (OCIT), Akron, Ohio	Geotechnical Engineer – The OCI Tunnel will provide a minimum storage volume of 25.6 million gallons, excluding the volume conveyed in consolidation sewers, dewatering tunnels/sewers, adits, and drop shafts. The tunnel is located in the downtown area of Akron. Performed geotechnical analyses of various foundation alternatives and site improvement techniques for a large CSO tank and a temporary diversion structure (TDS). Engineering analyses included global stability, bearing capacity, settlement, feasibility considerations and development of rough opinion of probable construction cost for different alternatives. **Client Contact:** City of Akron – Michelle DiFiore, 330.375.2495 **Service Budget:** $20 Million **Role of Vendor:** Prime

RAJA JILDEH, PE

SENIOR PROJECT MANAGER

Raja spent 24 years as a project manager for MDOT where he helped develop MDOT plan notes, standard practices, guides, and specifications. He has also served on various state and national committees, included as an MDOT Bridge Design liaison to MITA quarterly meetings with bridge contractors, an MDOT representative to the North Central States Consortium (NCSC) of Departments of Transportation from the North Central United States, and as a past MDOT representative to the AASHTO Subcommittee on Bridges and Structures.

YEARS OF EXPERIENCE

7 years — Fishbeck
39 years — total

EDUCATION

BS in Civil Engineering,
Wayne State University

REGISTRATIONS/ CERTIFICATIONS

Professional Engineer – Michigan, Ohio, and Indiana

MEMBERSHIPS

Conference of Minority Transportation Officials

American Society of Civil Engineers

American Council of Engineering Companies

- Transportation Committee
- MDOT Bridge Committee

Michigan Infrastructure & Transportation Association

EXPERIENCE

CITY OF LANSING | LANSING, MICHIGAN

AURELIUS ROAD OVER GTW RAILROAD BRIDGE

This project involves replacement of the Aurelius Road bridge over GTW Railroad and nearly one mile of approach and road reconstruction. The road limits include approach work on the Red Cedar River bridge south of the railroad bridge; no work is included on the river bridge. The GTW Railroad has four tracks with one slide track at this location; therefore, the proposed span is very long at nearly 105 feet.

WASHTENAW COUNTY ROAD COMMISSION, MICHIGAN

MILLER ROAD ROUNDABOUT AND BRIDGE REPLACEMENT, SCIO TOWNSHIP

Lead bridge engineer for this LAP project involving design of a roundabout, road reconstruction, and replacement of the bridge over Honey Creek. Services included traffic studies, environmental permits, survey, right-of-way descriptions, road design, roundabout design, structural design, hydraulic analysis, MOT design, public/stakeholder outreach, and construction phase services.

MACOMB COUNTY DEPARTMENT OF ROADS

BRIDGE QC PLAN AND QA SERVICES

Fishbeck is developing a QC plan for bridges, to be in compliance with MDOT's Local Agency Program bridge design guidelines. In addition, Fishbeck will provide as-needed QA services for bridges designed by MCDR bridge engineers.

CITY OF GRAND RAPIDS | GRAND RAPIDS, MICHIGAN

FREEMAN AVENUE RAILROAD GRADE SEPARATION STUDY

This project involved studying various road improvement options for crossing the CSX Railroad corridor near Freeman Avenue. Early preliminary engineering was undertaken for road, bridge, and non-motorized improvements. The project included coordinating with various stakeholders including local business owners, adjacent local governments, MDOT, CSX, and local economic development groups. Cost estimates were developed, and grant funding opportunities were investigated.

CITY OF MONROE | MONROE, MICHIGAN

WINCHESTER ROAD BRIDGE OVER RIVER RAISIN

Deck rehabilitation, railing replacement, and viewing platform retrofit on this 500- by 52-foot, 5-span PCI beam bridge with one bicycle lane and traffic lane in each direction built in 1971. Following a concrete overlay in 2006, the deck prematurely cracked and spalled, and a repair was attempted in 2010, which did not work. Fishbeck prepared design plans for a deep overlay encapsulating the entire top layer of reinforcement, railing replacement, and viewing platform retrofit.

MDOT

RESEARCH PROJECT: BRIDGE STRUCTURAL ANALYSES FOR STAGED CONSTRUCTION AND CONSTRUCTABILITY REVIEWS

Identify the most important construction issues and cases during part-width or staged

fishbeck

RAJA JILDEH, PE

SENIOR PROJECT MANAGER

construction and key components of constructability reviews for MDOT bridge projects. Provide analysis templates for MDOT's use during design activities. Additionally, provide manuals and guides with examples and implementation recommendations. Collect information from MDOT staff in addition to literature review and state-of-the-art practices are key components of this project.

METRO REGION RFA EMERGENCY REPAIRS | METRO REGION

These projects involved repairing the Request for Action (RFA) deficiencies at various locations in Metro Region and preventing them from recurring. These repairs consisted of structural steel buckled web repairs, connection plate repairs and replacement, H-bearing replacements, beam end loss of section repairs, substructure concrete repairs and pier cap replacement. These repairs involved traffic shifts and lane closures and this contract used 38 column type temporary supports.

MDOT | BAY REGION

AS-NEEDED BAY REGION SCOUR COUNTERMEASURES

Production of bridge plans for scour countermeasure placement on several scour critical bridges. A portion of this contract includes survey work as many of these locations require design of haul roads for scour countermeasure placement. MOT is also included, which will include traffic shifts at many locations. Each job number will be let as one package.

MDOT | HOUGHTON AND MARQUETTE COUNTIES

US-41, M-26, AND M-35 EMERGENCY CULVERT REPLACEMENTS

Part-width replacement of six existing culverts that partially washed away in the storms of 2018. These culverts were undersized and varied in type and shape and were replaced with 4-sided prefabricated concrete culverts of varying sizes. Cofferdam staging with a variety of temporary measures to maintain flow during construction were used. Additional ROW was typically needed for additional scour countermeasures.

MDOT | BERRIEN COUNTY

SQUAW CREEKS UNDER 1-94 CULVERT DESIGN | BERRIEN COUNTY

Design for replacement of the Squaw Creek culvert under I-94 and the New Buffalo weigh stations. Involved replacing the 960-foot, 72-inch culvert with a 520-foot, 22-foot by 10-foot culvert. A natural channel design was developed to promote a stable environment for plant growth. The shorter culvert required the west weigh station to be reconfigured and infrastructure updated. Work was coordinated with MDOT, MSP, EGLE, and MDNR. MOT, signing, and pavement marking plans were developed.

MDOT | MONROE COUNTY

US-24 OVER LITTLE LAKE CREEK AS-NEEDED BRIDGE DESIGN | MONROE, COUNTY

Fishbeck scope of services included design, utility coordination, and preparation of construction plans, specifications, supporting engineering analysis, and other related technical documents for the proposed culvert replacement carrying US-24 over Little Lake Creek. Traffic along US-24 was detoured over local roads. Mobility analysis and preparation of a TMP was required. Fishbeck also provided survey required for hydraulic analysis and culvert replacement design.

MDOT | DETROIT, MICHIGAN

I-94 MODERNIZATION - BRUSH STREET BRIDGE

As part of the I-94 modernization project, MDOT has advanced the design of eight bridges in poor shape. Fishbeck is providing bridge design services for Brush Street over I-94. The existing 4-span bridge will be replaced with a 2-span bridge that will accommodate the proposed future alignment of I-94. The proposed bridge deck will carry two through lanes in each direction with a center turn lane and sidewalks in each direction. In the interim condition, Brush Street will remain a one-way street. This project involves coordination with several design consultants including small businesses that provide design services like road design, MOT, lighting, and signing and pavement markings.

ROBERT A. BLODGETT, CWI

SENIOR STAFF SPECIALIST
robert.blodgett@sme-usa.com

ROLE ON THIS PROJECT:
Highway Structural Field Inspector, Non-Destructive Testing Inspector and Steel Fabrication Inspector

YEARS OF EXPERIENCE:
4 with SME and 19 with other consultants

GENERAL EXPERIENCE AND QUALIFICATIONS

Bob has 23 years of welding and inspection experience. He is a Certified Welding Inspector and one of SME's lead QA inspectors for fabrication shop reviews. Bob has extensive experience in fabrication shops in addition to his field review experience and NDT auditing. He has performed QA review during fabrication of mast arms, pedestrian bridges, retrofit, bearings, poles, railing, and fracture critical components. Bob performs quality control reviews and monitoring of erection, bolting and welding operations for buildings and weldments. In addition to inspection, his experience includes weld consulting, testing and evaluation of welding procedures, procedure qualification, and welder qualification.

EDUCATION

United States Marine Corps – Private, Lance Corporal

LICENSES AND REGISTRATIONS

American Welding Society (AWS) Certified Welding Inspector (CWI)
#15112311
ASNT-TC1A Magnetic Particle (MT) Level II
ASNT-TC1A Ultrasonic (UT) Level II
MIOSHA Part 58 &32 Aerial WP Operator
Confined Space-29 CFR 1910.146
MUST –C42319289

PROJECT EXPERIENCE

I-196 OVER GRAND RIVER, GRAND RAPIDS, MICHIGAN
MDOT PROJECT NOS.: JN 109971 CS 41027

As **QA Inspector**, Bob is acting as MDOT representative at DS Brown in North Baltimore, Ohio for the Fabrication and coating of Rocker Bearings. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 01/2017 to Current | **Year Completed**: Ongoing | **SME Budget**: $4,200 to date
Client Contact: MDOT, Matthew Filcek, 517-322-5709 | **SME's Role:** Prime

I-75 OVER ROUGE RIVER, DETROIT, MICHIGAN
MDOT PROJECT NOS.: JN 116287 CS 82194

As **QA Inspector**, Bob is acting as MDOT representative the Fabrication and coating of expansion joints at DS Brown in North Baltimore, Ohio. He is responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 01/2010 to Current | **Year Completed**: Ongoing | **SME Budget**: $2,012 to date
Client Contact: MDOT, Matthew Filcek, 517-322-5709 | **SME's Role:** Prime

MAPLE ROAD TRAFFIC SIGNAL, BIRMINGHAM, MICHIGAN
MDOT PROJECT NOS.: JN 63000 CS 132771

As **QA Inspector** Bob acted as MDOT/City of Birmingham representative at Valmount Valley NE. for the Fabrication and coating of traffic signal mast arms and poles. Responsible to oversee the adherence to MDOT/City of Birmingham specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 03/2020-04/2020 | **Year Completed**: 2020 | **SME Budget**: $ 16,940
Client Contact: Nowak & Fraus, Brett Buchholz | **SME's Role:** Prime

ROBERT A. BLODGETT, CWI – PROJECT EXPERIENCE CONTINUED

FREDERICK MEIJER PEDESTRIAN BRIDGE, GRAND RAPIDS, MICHIGAN
MDOT PROJECT NOS.: JN 59849 CS 126857

As **QA Inspector**, Bob provided structural steel inspection and quality control review at Bailey Bridges, Fort Payne, Alabama. Inspections including visual bolt and weld reviews for MDOT for pedestrian bridges on the Frederick Meijer White Pine Trail.

Years of Service: 09/2016 to 10/2016 | **Year Completed**: 2016 | **SME Budget**: $28,681
Client Contact: MDOT, Jeff Weiler, 517-322-1235 | **SME's Role:** Prime

TRAFFIC SIGNAL MAST ARMS I-94 AT MICHIGAN AVENUE, BATTLE CREEK, MICHIGAN
MDOT PROJECT NOS.: JN 38083 CS 113565

As **QA Inspector**, Bob acted as MDOT representative for the Fabrication and coating of traffic signal mast arms and poles at Millerbernd Manufacturing, Winsted, MN. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 10/2017 to 01/2018 | **Year Completed**: 2018 | **SME Budget**: $ 32,644
Client Contact: MDOT, Jeff Weiler, 517-322-1235 | **SME's Role:** Prime

GENERAL MOTORS SILAO BODY SHOP ADDITION, GUADALAJARA, MEXICO
MDOT PROJECT NOS.:

As **QA Inspector**, Bob provided structural steel inspection and quality control review including visual bolt and weld reviews for General Motors Silao Body Shop Addition of structural steel fabricated by Corey Fabrication in Guadalajara, Mexico.

Years of Service: 10/2016 to 11/2016 and 01/2017 to 2/2017 | **Year Completed**: 2017 | **SME Budget**: $373,944
Client Contact: Barton Malow, Tim Webster, 248-436-5468 | **SME's Role:** Prime

REPLACEMENT GRATING PANELS FOR MACKINAW BRIDGE, FORT PAYNE, ALABAMA
MDOT PROJECT NOS.: 1109-16

As **QA Inspector**, Bob acted as MDOT representative at Bailey Bridge Ft. Payne, Alabama, for the Fabrication and coating of replacement grating panels for the Mackinac Bridge. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 11/2016 to 01/2017 | **Year Completed**: 2017 | **SME Budget**: $25,433
Client Contact: MDOT-Jeff Weiler 517-322-1235 | **SME's Role:** Prime

CULVERT STREET OVER M-10, DEARBORN, MICHIGAN
MDOT PROJECT NOS.: 82112-127773

As **QA Inspector**, Bob acted as MDOT representative at Scougal Rubber, McCarren, NV for the fabrication and rubber vulcanization of bearings for use on bridges. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 03/2017 | **Year Completed**: 2017 | **SME Budget**: $25,433
Client Contact: MDOT, Jeff Weiler, 517-322-1235 | **SME's Role:** Prime

M-59 FROM M-53 TO EAST ROMEO PLANK ROAD, STERLING HEIGHTS, MICHIGAN
MDOT PROJECT NOS.: JN 50033 CS 111361

As **QA Inspector**, Bob acted as MDOT representative at Millerbernd Manufacturing, Winsted, MN for the Fabrication and coating of traffic signal mast arms and poles. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 06/2017 to 08/2017 | **Year Completed**: 2017 | **SME Budget**: $65,767
Client Contact: MDOT, Jeff Weiler, 517-322-1235 | **SME's Role:** Prime

US-2 OVER CUT RIVER, MACKINAC CITY, MICHIGAN
MDOT PROJECT NOS.: JN 49023 CS 129527

As **QA Inspector**, Bob acted as MDOT representative at Cardinal Fabrication Williamston, Michigan for the Fabrication of fracture critical material. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 09/2017 to 10/2017 | **Year Completed**: 2017 | **SME Budget**: $15,060
Client Contact: MDOT, Matt Filcek, 517-322-5709 | **SME's Role:** Prime

ABI CORBETT

SENIOR STAFF SPECIALIST
abi.corbett@sme-usa.com

ROLE ON THIS PROJECT:
Associate Project Manger

YEARS OF EXPERIENCE:
Less than 2 with SME and 0 with other consultants

GENERAL EXPERIENCE AND QUALIFICATIONS

Abi has 1.5 years of experience providing assistance in project management in a variety of steel, concrete, coatings, and nondestructive testing projects. She specializes in management of fabrication quality assurance projects. Abi has both a Bachelor's and Master's of Science in Business Administration.

EDUCATION

B.S., 2018, Business Administration, Missouri Southern State University, Joplin, Missouri
M.S., 2021, Business Administration, McKendree University, Lebanon, Illinois

LICENSES AND REGISTRATIONS

ACI Concrete Field Testing Technician, Level I
OSHA 10 Hour Outreach Training – Construction
OSHA 612 Work Zone Traffic Safety

PROJECT EXPERIENCE

MDOT FABRICATION REVIEWS 2021-2025, VARIOUS LOCATIONS THROUGHOUT THE US
MDOT PROJECT NO.: VARIOUS

As **Associate Project Manager,** Abi serves as a point of contact for steel, concrete, and nondestructive testing services. Responsible for coordinating day to day activities throughout fabrication facilities and Michigan roadways, maintaining administrative functions, performing quality assurance of reports, and other various management activities for fabrication shop reviews. This project includes fabrication of steel and concrete bridge elements, such as MSE walls, bridge rail, bridge beams, culverts, and sign structures.

Years of Service: 2021 to Current | **Year Completed**: Ongoing | **SME Budget**: $1,587,442 to date
Client Contact: Michigan Department of Transportation, Mathew Filcek, 517-322-5709 | **SME's Role:** Prime

MACOMB COUNTY FAB REVIEWS 23 MILE ROAD OVER MILLER DRAIN, NCP CULVERTS
MDOT PROJECT NO.: JN 206644 AND JN 212853

As **Associate Project Manager,** Abi assists in management and coordination of staff and activities involved in the quality assurance reviews of box culverts at Northern Concrete Pipe.

Years of Service: 2022 to Current | **Year Completed**: Ongoing | **SME Budget**: $19,076
Client Contact: Macomb County Department of Roads, Jim Armbruster, 586-469-5255 | **SME's Role:** Prime

WIGHTMAN WALTON BRIDGE FAB REVIEWS, BERRIEN COUNTY, MICHIGAN
MDOT PROJECT NO.: JN 207717

As **Associate Project Manager,** Abi assisted in management and coordination of staff and activities involved in the quality assurance reviews of steel bridge elements fabricated at Cardinal Fabricating.

Years of Service: 2022 | **Year Completed**: 2022 | **SME Budget**: $8,840
Client Contact: Wightman, Suzannah Deneau, 269-927-0200 | **SME's Role:** Subconsultant

8TH STREET OVER BALDWIN RIVER, BALDWIN LAKE COUNTY, MICHIGAN
MDOT PROJECT NO.: JN 212456

As **Associate Project Manager,** Abi assists in management and coordination of staff and activities involved in the quality assurance reviews of steel bridge railing fabricated at Cardinal Fabricating and concrete beams fabricated at Peninsula Prestress Company.

Years of Service: 2022 to Current | **Year Completed**: Ongoing | **SME Budget**: $21,125
Client Contact: Fishbeck, Kevin Kietzman, 616-575-3824 | **SME's Role:** Subconsultant

ABI CORBETT – PROJECT EXPERIENCE CONTINUED

14 MILE ROAD FABRICATION REVIEWS, OAKLAND COUNTY, MICHIGAN
MDOT PROJECT NO.: JN 209482

As **Associate Project Manager,** Abi assists in management and coordination of staff and activities involved in the quality assurance reviews of traffic signal mast arm fabrication at Union Metal Industries.

Years of Service: 2022 to Current | **Year Completed**: Ongoing | **SME Budget**: $16,925
Client Contact: Road Commission for Oakland County, Jerry Jehle, 248-858-4895 | **SME's Role:** Prime

TODD M. JOHNSON, CWI, NDT LEVEL II, NACE CIP-1

LEAD QA CWI
todd.johnson@sme-usa.com

ROLE ON THIS PROJECT:
Highway Structural Field Inspector, Assistant, Non-Destructive Testing Inspector & Steel Fabrication Inspector

YEARS OF EXPERIENCE:
5 with SME and 23 with other consultants

GENERAL EXPERIENCE AND QUALIFICATIONS

Todd has 28 years of experience in fabrication shops and field reviews related to fabricated steel elements. Todd is a Certified Welding Inspector and one of SME's lead QA inspectors for fabrication shop reviews. He performs nondestructive testing, QA reviews, and monitoring of erection, bolting and welding operations. Todd has performed QA reviews during fabrication of sound walls, plate girders, sole plates, and structural retrofit. He also has experience in weld consulting, welding procedure development/testing, electro deposition, and powder coating paint lines. .

EDUCATION

Welding Technologies Course – GRCC Michigan
American Welding Society – Certified Welding Inspector
ASNT TC1A Non Destructive Testing – UT Level II
NACE CIP Level I

LICENSES AND REGISTRATIONS

American Welding Society (AWS)Certified Welding Inspector (CWI)
ASNT-TC1A Ultrasound (UT) Level II
ASNT-TC1A Magnetic Particle (MT) Level II

NACE CIP-1 Level I

MUST-Safety Program
NDT Group NAVSEA
ICC (International Code Council) Structural Steel Bolting and Welding Special Inspector (S1 & S2)

PROJECT EXPERIENCE

CARDINAL FABRICATION, WILLIAMSTON, MICHIGAN
MDOT PROJECT NOS.: VARIOUS MDOT PROJECTS

As **Lead QA CWI**, Todd is the MDOT representative at Cardinal Fabrication Williamston, Michigan for the fabrication and coating of misc. sign and bridge structures. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 1/2018-current | **Year Completed**: Ongoing | **SME Budget**: NA
Client Contact: MDOT, Matthew Filcek, 517-322-5709 | **SME's Role:** Prime

I-96/I-196 EXCHANGE, GRAND RAPIDS, MICHIGAN
MDOT PROJECT NOS.: JN 41025 CS 126499

As **Lead QA CWI**, Todd acted as the MDOT representative at Veritas Fabrication, Wausau, Wisconsin for the fabrication and coating of bridge girders and bridge diaphragms. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 12/2018-4/2019 | **Year Completed**: 2019 | **SME Budget**: $65,260
Client Contact: MDOT, Matthew Filcek, 517-322-5709 | **SME's Role:** Prime

TODD JOHNSON, CWI, – PROJECT EXPERIENCE CONTINUED

I-75 OVER ROUGE RIVER AND GODDARD, DETROIT, MICHIGAN
MDOT PROJECT NOS.: JN 126818

As **Lead QA CWI**, Todd acted as the MDOT representative at Big R Bridge, Virginia for the fabrication and coating of sound walls. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet for Big R. Bridge in Virginia.

Years of Service: 06/2017 to 09/2017 | **Year Completed**: 2017 | **SME Budget**: $58,406
Client Contact: MDOT, Jeff Weiler, 517-322-1235 | **SME's Role:** Prime

WEST ROAD OVER I-75, WOOD HAVEN, MICHIGAN
MDOT PROJECT NOS.: JN 128543

As **Lead QA CWI**, Todd acted as the MDOT representative at Beverly Steel Inc. TN for the Fabrication and coating of plate girders. Responsible to oversee the adherence to MDOT specifications from receipt of materials through fabrication, coating, stamping of conformance on shipper and submitting final documentation packet.

Years of Service: 02/2017 to 09/2017 | **Year Completed**: 2017 | **SME Budget**: $15,800
Client Contact: MDOT, Jeff Weiler, 517-322-1235 | **SME's Role:** Prime

UNIVERSITY OF NOTRE DAME ADDITION/RENOVATION
MDOT PROJECT NOS.:

As **Lead QA CWI**, Todd performed UT (Ultrasonic) testing of welds and visual review on bolted and welded connections including structural steel, shear studs, decking and pipe work at the University of Notre Dame in South Bend, Indiana. Project involved adding three new buildings and joining the University's stadium to the east, west and south.

Years of Service: 04/2015 to 05/2017 | **Year Completed**: 2017 | **SME Budget**: Confidential
Client Contact: UND/Barton Malow, James Kramek, 248-914-3167 | **SME's Role:** Prime

GENERAL MOTOR SILAO RENOVATION GUANAJUATO, MEXICO
MDOT PROJECT NOS.:

As **Lead QA CWI**, Todd provided consulting and performed on site reviews of structural steel framing erection, bolting and welding for multiple building additions at the General Motors Complex in Silao, Guanajuato Mexico. Also provided training in AISC (American Institute of Steel Construction) and AWS (American Welding Society) codes and practices.

Years of Service: 10/2016-2/2017 | **Year Completed**: 2017 | **SME Budget**: $259,444
Client Contact: Walbridge, Manual Moreno, 313-887-4022 | **SME's Role:** Prime