



I-10 WIDENING FROM I-295 TO I-95

FPID 43910015201, 43910015601 | Contract E2Y63

Letter of Interest

Contact: Brian Sparks, Archer Western Construction
 4343 Anchor Plaza Pkwy, #155, Tampa, FL 33634
 000.000.0000 | XXXXX@walshgroup.com



Figure 1 – AW Team Experience and Project Overview



Archer Western Construction, LLC (AW), in partnership with lead design firm GAI Consultants Inc. (GAI) (The AW Team) is pleased to submit this Letter of Interest to provide Design-Build (DB) services for the widening of I-10 from I-295 to I-95 in Duval County. The AW/GAI Team has a proven performance record for providing design and construction quality, economic value and innovative solutions. We are committed to continuing our successful partnership with FDOT District 2 (D2) on this very important project.

The AW Team has a long history of delivering successful projects with the Department, including three that are directly adjacent to this project: the “Big I”, Overland Bridge, and the ongoing I-10/I-95 Operational Improvements projects. ***In fact, the very same design team of GAI and major partners WSP, UES and ESI from the ongoing I-10/I-95 Operational Improvements Project will be supporting this effort to deliver an on-time, quality project.***

Our Team offers:

A Long History of Success with FDOT D2. AW and GAI have assisted FDOT with the delivery of some of the most complex projects in District 2 over the past 15 years, totaling more than \$2 Billion in construction value.

Extraordinary Concrete Paving Experience. AW has constructed 2,000,000 SY of concrete paving throughout Florida. Much of this work has been done on highly congested, limited access roadways such as I-10. This includes AW/GAI collaborations in D2 (I-95, I-10, and SR 9B) and a DB project for FDOT District 6 in Miami, where the concrete pavement on an entire 12-lane section (41.7 lane miles) of I-95 is being replaced.

The Expertise of the Nation’s Largest Bridge Builder (for the last six years per ENR). AW has maintained the reputation of excellence in bridge building, having constructed hundreds of similar bridges and retaining walls within highly constrained conditions similar to this project.

A Local, Experienced Construction Team. AW will devote construction resources who are currently finalizing the I-295 Express Lanes (SR 9B to JTB) Project, moving them seamlessly onto this project after that project is completed in late 2019. We will also take full advantage of concurrent work at the I-10/I-95 interchange, sharing resources and providing an overall better value to the Department.

The AW Team has a clear understanding of the key challenges that will drive the design and construction of this project:

Table 1 – Key Challenges & AW Approach

Challenges	AW Team Approach
Minimizing Disruption to Traffic	<ul style="list-style-type: none"> Minimize MOT phases and lane shifts (and associated ghost striping) Maintain existing Stopping Sight Distance (SSD) on I-10 and cross streets Provide shoulder refuge for disabled vehicles to avoid “the I-4 effect”
Maintain Cross Road Traffic	<ul style="list-style-type: none"> Consider drilled shaft foundations to expedite work in cross road medians, reduce closure times, and limit impacts to traffic Maintain sidewalks on at least one side at all times
Replace Cedar River Bridge Culverts	<ul style="list-style-type: none"> Ensure efficient and effective maintenance of traffic and drainage flow, relying on AW’s significant recent major box culvert construction experience Apply a simple phased construction approach using sheet pile and soldier pile walls to minimize impact to I-10 traffic, drainage flow and the environment Maintain flow through phased “cell” construction strategically setting weir elevations to allow for full capacity flow during peak storm events
Address Spread and Hydroplaning	<ul style="list-style-type: none"> Add barrier wall inlets in superelevated sections to contain stormwater spread within the inside shoulder Propose innovative solutions (e.g. grooving, bonded friction course) to address current hydroplaning issues that will be exacerbated by the proposed widening
Widen Bridges without Reducing Clearance	<ul style="list-style-type: none"> Maintain existing vertical clearances by using closer spaced FIBs Apply a specialty design for the crossing over CSX that accommodates rail operations and needs Work with D2 to maximize bridge clearances between US 17 and the I-10 EB overpass while meeting all aesthetic commitments
Address Commitments and Aesthetics	<ul style="list-style-type: none"> Construct sound walls in accordance with FDOT commitments Utilize our team’s experience and relationships gained on the I-10/I-95 Operational Improvements working side-by-side with D2 to implement context-sensitive aesthetic solutions
Replace the Day Ave Pedestrian Tunnel	<ul style="list-style-type: none"> Apply an efficient phased construction approach similar to the Cedar Creek bridge culverts, minimizing construction duration and disruption to traffic Implement and maintain safe pedestrian detours during construction Include aesthetic enhancements at entryways and 24-hour lighting
Coordinating Permanent Guide Signs	<ul style="list-style-type: none"> Work with D2 to eliminate costly (throw away) new overhead sign structures on AW’s current I-10/I-95 Operational Improvements Project Draw upon AW’s experience resolving similar issues between I-10/I-95 and the Overland Bridge Project, providing cost savings to FDOT
Work Zone Access	<ul style="list-style-type: none"> Designate ingress/egress work zone access points at on/off ramps for outside construction and NOT from the I-10 mainline Place continuous barrier wall adjacent to the work zone on mainline I-10 to prevent work zone access Deliver material & equipment during off-peak times and under lane closures Establish pre-planned haul routes that avoid residential areas

SECTION 1 – DESIGN-BUILD FIRM NAME AND PREQUALIFICATIONS

The contracting entity for this project will be Archer Western Construction, LLC. *Our Team's prequalifications are presented in the accompanying organization chart.*

SECTION 2 – PAST PERFORMANCE EVALUATIONS, DESIGN-BUILD PROJECT EXPERIENCE, ORGANIZATION, STAFFING

2.1 Contractor Grades

AW has consistently demonstrated our ability to manage FDOT's most complex projects with a high level of quality, safety, and schedule adherence, while maintaining focus on your critical project objectives. **This is emphasized by our current statewide average CPPR score of 103 – earned primarily on FDOT's largest and most complex projects.** Most importantly, AW's Florida Region has completed every project for FDOT on time, and in most cases, well ahead of schedule. Individual CPPR scores for our similar projects can be found in **Tables 2 and 3.**

2.2 Professional Consultant Grades

GAI has gained significant experience with FDOT as EOR on many DB projects, and has worked closely with FDOT and CEI staff throughout design and construction, achieving excellent CPPR grades on every project. This is further demonstrated by **GAI's average consultant performance grade in Work Group 3 in District 2 of 3.55.**

2.3 Performance History with Other States or Agencies if None with Department – Not Applicable

2.4 Design-Build Project Experience of the Contractor and Professional Consultant

Over the past 13 years, AW and GAI have developed a strong partnership, successfully working together on some of FDOT's largest and most complex projects, including the I-10/I-95 Operational Improvements, the I-10/I-95 Interchange, Overland Bridge, the I-95/I-4/US 92 Systems Interchange, I-95 Express Rigid Concrete, SR 9B Phase 1, and the MLK Interchange Projects. Our numerous joint DB projects, listed in **Table 2**, illustrate the unparalleled DB project experience our Team brings to FDOT. Additionally, we have a history and reputation of providing innovative and cost savings solutions, including:

- I-10/I-95 Operational Improvements – *Modification reducing bridge deck and salvaging existing concrete paving – \$16M in Savings.*
- I-4/I-95/US 92 Interchange DB (AW/GAI) – *Modification eliminating major right-of-way (R/W) acquisition and significant earthwork, MSE walls, and bridge length – \$40M in Savings.*
- SR 9B Phase 1 DB (AW/GAI) – *Modification to the 9B roadway profile – a reduction of over 1 million CY of embankment – \$7M in Savings.*
- SR 115/MLK Interchange DB (AW/GAI) – *Modification to the SR 115/ Phoenix Ave/Port Entry Interchange – \$10M in Savings.*

Table 2 – Joint Design-Build Project Experience (P) - Prime, (S) - Sub

<p>I-95 at I-10 Operations Improvements, FDOT D2, \$117M, Completion 2020, CPPR 100 AW (P), GAI (P), UES (S), WSP (S) The AW Team is providing design and construction services for operational improvements to the existing interchange at I-95 and I-10 in Duval County, Florida. The \$117M DB project includes the widening of the Fuller Warren Bridge over the St. Johns River for an additional lane and a pedestrian path. <i>Ref: Craig Teal, PE (386) 961-7703. Key Staff: AW: Brian Sparks, Kevin McGlinchey. GAI: Kevin Leadbetter, Ron Hoogland, Bobby Jamieson, Bob Baxter, Keith Yoder, Laura Phillips, Anna Zhang, Glenn Herbert. WSP: Chris Ray, Ron Pati, Graciela Patino. UES: Jeff Pruett.</i></p>	
<p>I-95/I-4/US 92 Systems Interchange, FDOT D5, \$205M, Completion 2018, CPPR 100 AW (P), GAI (P), UES (S) This project includes reconfiguration of the systems interchange of I-95 with I-4 and with US 92, along with widening of I-95 from 4 to 6 lanes from SR 44 to US 92. GAI's innovative redesign of the interchange resulted in saving over \$20M of R/W acquisition. Additional scope items include drainage improvements, bridge widening/replacement, and ITS modifications. This project fronts the Daytona International Airport, and required extensive coordination with both the FAA and airport operations for crane use and permanent construction. <i>Ref: Paul Wabi, PE (386) 740-3594. Key Staff: AW: Brian Sparks, Kevin McGlinchey. GAI: Kevin Leadbetter, Bobby Jamieson, Bob Baxter, Sylvester Asiamah, Sinan Buyukaksakal. UES: Jeff Pruett.</i></p>	
<p>I-95 Express Rigid Concrete Pavement, FDOT D6, \$89M, Completion 2020, CPPR 100 AW (P), GAI (S), UES (S) 3.041 miles of SR 9A/I-95 concrete mainline pavement and shoulder pavement including five bridge railing retrofits. The project also includes the construction of Express Lanes Emergency Stopping Sites (ESS) in the median at 5 locations between 62nd St and 131st St for safety along I-95. The inside shoulder has been reduced in width to accommodate the ESS sites and vary from 2.5' to a maximum of 13.33' at the ESS sites. <i>Ref: Mario Cabrera, PE (305) 216-4962. Key Staff: AW: Brian Sparks, Kevin McGlinchey. GAI: Kevin Leadbetter, Bobby Jamieson, Anna Zhang, Steve Boylan, David Verlander, Chelsea Romero, Judson Fohr, Jim Schlottman. UES: Jeff Pruett.</i></p>	
<p>I-95 Overland Bridge, FDOT D2, \$160M, Completed 2017, CPPR 94 AW (P), GAI (S), UES (S) Reconstruction of I-95 through downtown Jacksonville, new CD roads, new full interchange with Atlantic Boulevard, 14 new bridge structures and a 3rd level flyover. Major components include: widening/reconstruction, interchange modification, PCCP, major bridge, asphalt/concrete paving, public involvement, MOT/High volume, drainage improvements, environmentally sensitive, interagency/utility coordination. <i>Ref: Craig Teal, PE (386) 961-7703. Key Staff: AW: Brian Sparks, Kevin McGlinchey, Alek Albach. GAI: Jenna Jakes. UES: Jeff Pruett.</i></p>	
<p>I-295 Express Lanes (SR 9B to SR 202), FDOT D2, \$147M, Completion 2019, CPPR 100 AW (P), UES (S) This project involves concrete widening and construction of several complex bridges in order to accommodate express lanes. Key project issues included incident management and maintaining traffic on this very heavily traveled corridor. <i>Ref: Taylor Byrd (386) 312-4826. Key Staff: AW: Brian Sparks, Kevin McGlinchey, Alek Albach. GAI: Jenna Jakes. UES: Jeff Pruett</i></p>	
<p>SR 9B (SR 5/US 1 to I-295), FDOT D2, \$68M, Completed 2013, CPPR 91 AW (P), GAI (P), UES (S) This project included a system to system Interchange at I-295 and SR 9B, three miles of new interstate alignment, PCCP construction, 13 bridge structures over waterways, wetlands and active interstate highways, stormwater management facility design and permitting, wetland permitting oversight. <i>Ref: Kathy Thomas, PE (386) 961-7533. Key Staff: AW: Brian Sparks, Kevin McGlinchey. GAI: Kevin Leadbetter, Steve Boylan, Bob Baxter, Ron Hoogland, Bobby Jamieson, Sylvester Asiamah. UES: Jeff Pruett.</i></p>	
<p>I-95/I-295 North Interchange (Phase II), FDOT D2, \$176M, Completion 2021, CPPR 100 AW (P), GAI (CEI), UES (S) This project adds lanes and improve connectivity between I-95 and I-295 at the north end of Jacksonville near Jacksonville International Airport. The project is approximately six miles in length, with the pavement section primarily concrete. The project also includes extensive MSE walls, soil remediation and 4,000 LF of noise walls. There are 13 new bridges, plus two temporary Acrow bridges, and seven bridge removals. <i>Ref: Brian Benton, PE (904) 360-5544. Key Staff: AW: Brian Sparks, Kevin McGlinchey. GAI: Kevin Leadbetter. UES: Jeff Pruett.</i></p>	
<p>SR 115/21st St Interchange, FDOT D2, \$31M, Completed 2014, CPPR 100 AW (P), GAI (P), UES (S) This project included interchange improvements with three new bridge structures utilizing shallow foundations, curved structure over the JAXPORT Railroad, 71,000 SY of PCCP, permanent and temporary MSE wall design, and a complex MOT plan that kept four lanes of traffic open on SR 115 at all times during reconstruction of the mainline and associated bridges. <i>Ref: Craig Teal, PE (386) 961-7703. Key Staff: AW: Kevin McGlinchey, Brian Sparks. GAI: Kevin Leadbetter, Ron Hoogland, Bobby Jamieson, Bob Baxter, Sylvester Asiamah. UES: Jeff Pruett.</i></p>	

2.5 Similar Types of Work Experience

Additional relevant work experience directly applicable to this project is offered in Table 3. Concrete paving experience of the AW Team is provided in Table 4.

Table 3 – Similar Project Experience (P) - Prime, (S) - Sub		Design-Build	Concrete Paving	Widen / Reconstruct	Retaining Walls	Sound Walls	Major Bridge	System to System	Drainage / Permitting	Complex MOT	Utility Coordination	Adj. Project Coord.	Public Involvement
 I-10/I-95 Interchange Ph 1, FDOT D2, 2010 AW (P), GAI (CEI), UES (S) Key Staff: AW: Kevin McGlinchey, Alek Albach. GAI: Kevin Leadbetter. UES: Jeff Pruett.	\$158M		★	★	★	★	★	★	★	★	★	★	★
 US 1/San Sebastian River, FDOT D2, 2013, CPPR 106 AW (P), GAI (P), UES (S) Key Staff: AW: Kevin McGlinchey, Brian Sparks. GAI: Kevin Leadbetter, Bob Baxter, Bobby Jamieson, Ron Hoogland, Sylvester Asiamah. UES: Jeff Pruett.	\$13M	★	★	★	★		★		★	★	★	★	★
 I-295 East Beltway at UNF Drive, FDOT D2, 2006 GAI (P) Key Staff: GAI: Ron Hoogland, Sylvester Asiamah, Kevin Leadbetter.	\$33M	★		★	★	★	★		★	★	★	★	★
 I-95 Express Phase 3C, FDOT D4, Completion 2023 AW (P), GAI (S), UES (S) Key Staff: AW: Kevin McGlinchey, Brian Sparks. GAI: Sinan Buyukaksakal, David Verlander, Jenna Jakes, Judson Fohr, Bobby Jamieson. UES: Jeff Pruett.	\$457M	★		★	★	★	★	★	★	★	★	★	★
 Gateway Expressway, FDOT D7, Completion 2021, CPPR 100 AW (P), GAI (S), UES (S) Key Staff: AW: Brian Sparks, Kevin McGlinchey. UES: Jeff Pruett.	\$545M	★	★	★	★	★	★	★	★	★	★	★	★
 Wekiva Pkwy Section 6 (Design/Design-Build RFP), FDOT D5, 2015 GAI (P) Key Staff: GAI: Bobby Jamieson, Sylvester Asiamah, Jim Murray.	\$215M			★	★	★	★	★	★	★	★	★	★
 SR 91 (Florida Turnpike)/I-4 Interchange, FTE, Completed 2014 GAI (P) Key Staff: GAI: Bobby Jamieson, Lloyd Gurr, Kevin Leadbetter, Sylvester Asiamah, Anna Zhang.	\$12M	★		★	★		★	★	★	★	★	★	★
 Turnpike Widening (Atlantic to Boynton), FTE, Completion 2021 GAI (P) Key Staff: GAI: Sylvester Asiamah, Judson Fohr, Kevin Leadbetter, Jim Schlottman, Anna Zhang.	\$51M			★	★	★	★		★	★	★	★	★
 Veterans Memorial Bridge, FDOT D4, 2014, CPPR 104 AW (P) Key Staff: AW: Brian Sparks, Kevin McGlinchey.	\$64M	★		★	★		★		★		★	★	★
 SR 91 (Florida Turnpike)/I-4 Direct Connect, FTE, 2021 GAI (P), UES (S) Key Staff: GAI: Bobby Jamieson, Anna Zhang, Jenna Jakes, Sinan Buyukaksakal. UES: Jeff Pruett.	\$90M	★	★	★	★		★	★	★	★	★	★	★
 Veterans Expressway Widening, FTE, 2018 GAI (P), UES (S) Key Staff: GAI: Sylvester Asiamah, Judson Fohr, Lloyd Gurr, Bobby Jamieson, Kevin Leadbetter, Jim Schlottman.	\$51M	★		★	★	★	★	★	★	★	★	★	★
 I-4 Crosstown Connector Interchange, FDOT D7, 2014, CPPR 102 AW (P) Key Staff: AW: Kevin McGlinchey.	\$420M			★	★	★	★	★	★	★	★	★	★
 I-10/I-110 Interchange, FDOT D3, 2008, CPPR 96 AW (P) Key Staff: AW: Kevin McGlinchey.	\$90M			★	★	★	★	★	★	★	★	★	★

2.6 Environmental Record

The AW Team specializes in design and construction for FDOT and has successfully completed numerous projects in Florida’s most sensitive environments. We recently designed and constructed the complete replacement of the I-95 Bridges over Spruce Creek as part of our I-95/I-4/US 92 project. This work was performed over an Outstanding Florida Waterway, lies within a Riparian Habitat Protection Zone, and was completed with no violations. Field visits and proactive coordination between our environmental, engineering, and construction team members minimizes wetland and species impacts and achieves compliance. We will implement best management practices, environmental protection methods, and follow all NPDES stormwater permitting regulations. AW’s track record of excellent Category 7 CPPR scores prove our dedication to environmental compliance.

2.7 Contractor Experience Modification Rating

Safety is an integral part of the AW culture. We emphasize safety at our daily, weekly, and monthly meetings, and provide a dedicated Safety Manager for each of our projects. AW has won the FTBA Safety Award of Superior Achievement for nine of the past eleven years. Additionally, we have not received an OSHA violation in Florida in the last five years. Our National EMR is 0.77, demonstrating that we have 23% fewer worker’s compensation claims than the industry average.

Table 4 – Concrete Paving Experience

Project	Lane Miles
I-95 Rigid Pavement Replacement DB, FDOT D6	41.7
I-295 Exp. Lanes (SR 9B to SR 202) DB, FDOT D2	35.9
SR 9B (US 1 to I-295) DB, FDOT D2	18.0
I-95 (Zoo Pkwy to I-295), FDOT D2	7.0
I-10/I-95 Interchange, FDOT D2	23.4
SR 115/21st St DB, FDOT D2	9.4
I-95 Overland Bridge DB, FDOT D2	27.4
NAS JAX Airfield Paving and Lighting	18.5
I-95/I-295 North Interchange DB, FDOT D2	28.6
I-95, Heckscher Drive to 9A, FDOT D2	6.5
Total	216.4

2.8 Design-Build Firm Organization

AW, pre-qualified with FDOT in accordance with FAC Rule 14-22 in all of the relevant Work Classes, will execute the prime contract for DB services with FDOT. AW is a subsidiary of The Walsh Group, currently ranked as the nation's largest bridge builder according to Engineering News-Record (ENR) 2017. We are a leader in alternative procurement construction, having completed over 300 DB projects totaling over \$10B. **AW's Florida region has successfully performed nearly \$3B in construction projects for FDOT, including numerous high-profile, heavily traveled interstate and interchange projects.** We are currently working on seven DB projects for FDOT with a combined value of over \$2.4B.

GAI is the lead designer and will provide roadway, structures, and traffic design services. **GAI has completed or is actively working on 34 DB projects for FDOT and 43 DB projects in Florida over the past 14 years with a total value of over \$1.5B.** GAI, and key subconsultant partners, WSP, UES and ESI, are pre-qualified in all required design categories and offer FDOT unparalleled experience working together on DB projects. WSP will provide structural design support and lead the lighting and ITS design efforts. UES will provide geotechnical services and ESI will provide environmental permitting support. These firms successfully partnered on the I-10/I-95 Operational Improvements Project, the design of which will be complete as this I-10 Widening Project starts.

2.9 Design-Build Firm Staffing Plan

The AW Team includes not only the same firms, but many of the same key design and construction staff members from the successful similar projects noted in **Tables 2 and 3**, including the I-10/I-95 Operational Improvements Project, which is well under construction. These individuals have significant DB and limited access/interchange experience around D2 and across Florida. They have demonstrated an excellent ability to work together to solve construction and design issues quickly. Our key personnel on this project are identified in **Table 5**, with detailed resumes accompanying this Letter of Interest.

DBE / SBE Participation

AW consistently meets FDOT's DBE utilization goals. We will employ local and DBE/SBE firms on this project, as we are committed to exceeding FDOT's goal of 10.65% DBE and 3% non-DBE/SBE utilization. Of note, the FDOT DBE Specialized Project Director sent an appreciation letter to AW for their work mentoring FDOT DBE contractors on Bridging the Gap, a mentor protégé program. We understand D2's commitment to DBE firms and desire to exceed the statewide goals, especially on larger, high-profile projects. AW's average FDOT DBE utilization for the last five years is 9.6%, and GAI's is 18.39% for the past year. On this project, we anticipate significant DBE participation in precast elements, trucking, barrier wall, rebar and stay-in-place form installation.

“Archer Western has always demonstrated true professionalism, responsiveness and commitment to the support of the FDOT DBE Specialized Development Program and the DBE Firms”

*– Thomas Huggins,
FDOT DBE Specialized Project Director*

Table 5 – Design-Build Team Staffing

▼ Denotes Key Staff - Resume Included

Project Principals – Kevin McGlinchey (AW), Kevin Leadbetter, PE (GAI). These senior staff members of the AW Team will provide general direction and oversight and be integrally involved in solving any significant project challenges, as they have on the on-going I-95/I-10 Interchange Operational Improvements DB and every other DB project completed by the team of AW and GAI.

▼ **Construction Project Manager – Alek Albach (AW).** Mr. Albach brings 20 years of construction experience managing major limited-access facility projects, including interchanges and major bridges in District 2. He has extensive FDOT project experience (both DB and conventional projects), particularly on highly traveled interstates. *Mr. Albach's experience includes the I-10/I-95 Interchange - "The Big I", the I-95 Overland Bridge DB, the I-295 Express Lanes from SR 9B to JTB DB, SR 9B from US 1 to I-95 DB, and I-95 from Zoo Parkway to I-295.*

▼ **Construction DB Coordinator – Brian Sparks (AW).** Mr. Sparks led the firm's successful project development for the *\$117M I-10/I-95 Operational Improvements DB, \$205M I-95/I-4/US 92 Interchange DB, the \$545M Gateway Express DB, the \$140M I-295 Express Lanes DB, and the \$176M I-95/I-295 North Interchange.* He brings 21 years of experience on FDOT projects. He will ensure close communication among all project team members to provide a successful project delivery for District 2. Mr. Sparks' experience as DB coordinator on FDOT projects includes 14 projects valued at \$3B. Additionally, he has constructed numerous interchange projects for FDOT.

▼ **Construction Roadway Superintendent – Stephen Gardner (AW).** Mr. Gardner brings 18 years of experience in the construction industry. He is responsible for all aspects related to the construction of the roadway, including scheduling, managing and coordination of self-performed and subcontractors operations, planning and implementation of phasing and productions, and operational equipment needs and maintenance. His superintendent experience includes the *I-295 Express Lanes (SR 9B to SR 202) DB, I-540 Western Wake Freeway DB, and the Naval Air Station Jacksonville Airfield Paving and Lighting Project.*

▼ **Construction Structures Superintendent – Jimmy Graham (AW).** Mr. Graham is responsible for the implementation of field activities for the construction of the bridge work to include foundations of all types, substructure and superstructure. He enforces safe work practices; overall quality; maintains production schedules; and organizes equipment usage, material deliveries, and subcontractor coordination. His work experience includes the *I-295 North Interchange DB, I-95 Overland Bridge DB, the SR 115 / 21st St Interchange DB, and the SR 9B DB.*

▼ **Construction PCCP Paving (Specialty) Superintendent – Kenny Hogan (AW).** Mr. Hogan is responsible for all aspects related to the construction of the PCCP, barrier walls and batch plant, including the slipform and hand placements, equipment maintenance and logistics, material deliveries, trucking and coordinating/managing all subcontractors that pertain to concrete paving. His paving experience includes the *I-295 Express Lanes (SR 9B to SR 202) DB, the Jacksonville Naval Air Station Airfield, and the Fort Lauderdale/Hollywood International Airport Runway and Midfield Expansion Project.*

▼ **Design Project Manager – Ron Hoogland, PE (GAI).** Mr. Hoogland has 29 years of experience in design and project management, specializing in the design of major limited access and arterial roadway reconstruction, roadway rehabilitation, roadway safety enhancements, traffic studies, bridge replacements, development and major stormwater system upgrades. Mr. Hoogland's experience includes the *I-95 at I-10 Operational Improvements DB, SR 9B (from SR 5/US 1 to I-295) DB, the I-295 from I-10 to North of Commonwealth Ave Improvements Project, and the SR 5 (US 1) over San Sebastian River Bridge Replacement DB.*

▼ **Design Deputy PM / Roadway EOR – Bobby Jamieson, PE, PTOE (GAI).** Mr. Jamieson specializes in highways and transportation projects ranging from preliminary engineering studies and planning to final plan designs. He has developed numerous innovative solutions that improve design, expedite construction and reduce cost. His design experience includes roadway, drainage/stormwater, signalization, signing and pavement marking, and traffic control. Mr. Jamieson was the *EOR on the I-95/I-4/US 92 DB project, as well as the I-10/I-95 Operational Improvements Project.*

▼ **Design Structures EOR – Keith Yoder, PE (GAI).** Mr. Yoder is responsible for the overall coordination of the structures project team, client liaison, project administration, and supervision of all design work. His technical experience is in the design and analysis of steel and concrete bridges and other transportation-related structures, including both new and rehabilitation projects. Mr. Yoder's experience includes the *I-95 at I-10 Operational Improvements DB, the I-95/I-4/US 92 DB, and the SR 589 (Veterans Expressway) Widening and Resurfacing DB.*

▼ **Design Drainage (Specialty) EOR – Laura Phillips, PE (GAI).** Ms. Phillips brings 30 years of experience and has an extensive background in stormwater design and permitting, for municipal, highway, and private clients; extensive experience working both independently and as a Task Manager for large projects; and is well-versed in all aspects of project management. Her drainage management experience includes the *I-95 at I-10 Operational Improvements DB, the SR 212 (Beach Boulevard) Roadway Improvements Project, and the Reconstruction Design Plans for the US 1/Phillips Highway Project.*

2.10 Design-Build Firm Coordination Plan

AW Team Internal Coordination

The key proposed staff for this project has been working together for more than a decade and will rely on this continuity and experience to coordinate all elements of this project seamlessly. Weekly progress meetings are the cornerstone of our collaboration and will be conducted throughout the proposal phase into final design and throughout construction. File sharing through our innovative “Newforma” system allows for daily mirroring of files on GAI’s servers for access by all team members and FDOT’s PM – providing a sole source of the latest information and CADD files in a simple, user-friendly portal.

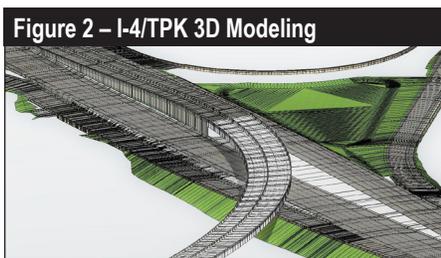
Design and construction submittals will be prioritized based on our comprehensive design and construction schedule. **Alek Albach (Construction PM), Brian Sparks (DB Coordinator), Ron Hoogland (Design PM), Bobby Jamieson (Deputy Design PM) and Bob Baxter (Construction Coordinator) have collaborated on several previous DB projects in D2** and will work together through procurement and the life of the project to ensure an efficient and constructible design. The high level of coordination on all of AW’s and GAI’s previous DB projects is evidenced by our continually high performance grades.

External Coordination

Coordination with FDOT: This team has demonstrated its ability to effectively coordinate with District 2 on 9 major DB projects and has a history of partnering to resolve issues that arise during the design review process. Pre-submittal meetings, direct contact with FDOT plan reviewers, and open communication between key members of our design staff, the CEI, and the FDOT Design and Construction Project Managers has resulted in rapid resolution of even the most complex issues on our recent DB projects. Construction PM Alek Albach will continue his partnership with the CEI and FDOT Construction Staff, facilitating an effective flow of information and issue resolution.

Submittals and Reviews: The AW Team will submit plans and components as outlined in the RFP. Safety enhancements will be prioritized, with early submittal packages issued where possible to solve ongoing safety concerns along the corridor. The AW Team will continue the process developed on the I-10/I-95 Operational Improvements project where responses to ERC comments will include updated plan sheets or calculations so that reviewers can verify that their comments have been addressed as they intended.

3D Modeling: FDOT developed a 3D model to help ensure the proposed improvements fit within the existing R/W. GAI has significant experience using 3D models as a design tool, with recent projects including the Turnpike Widening in Boynton Beach and the I-4/Turnpike Express Direct Connect DB (see **Figure 2**). The AW Team will work with the model developed for this project to ensure any proposed changes fit within the R/W, to detail ramp terminal areas, to avoid ponding water and to evaluate MOT.



Coordination with Permitting Agencies: The AW Team will promptly and thoroughly engage all environmental agencies, including St. Johns River Water Management District (SJRWMD), Florida Department of Environmental Protection (FDEP), Florida Fish and Wildlife Conservation Commission (FFWCC), and US Army Corps of Engineers (USACE). We will leverage our strong relationships with these agencies and FDOT’s environmental permitting staff to efficiently coordinate throughout all phases of design and construction.

Coordination with Other Adjacent Department and Local Projects: Our Team will coordinate with the following projects that are identified as having potential overlapping activity either through or adjacent to the Project per the RFP:

- **I-10/I-95 Operational Improvements. The AW Team is constructing this project** allowing additional background to existing corridor conditions, local government efforts and stakeholder needs.
- **JTA Lenox Ave Improvements.** The road diet and ADA improvements planned for this corridor is a JTA mobility project scheduled for construction at the

beginning of 2019. The dual left turn lanes from westbound (WB) Lenox Ave to northbound (NB) Cassat Ave proposed under this JTA project will require coordination with the improvements on Cassat Ave under the I-10 widening project.

Additional Coordination May Include: The Emerald Trail Master Implementation Plan shows the trail adjacent to King St crossing under I-10 and extending to the Art Walk Project (AW/GAI project) on Riverside Ave. In addition, the Rail Yard Community District is seeking to revitalize the area along Stockton St adjacent to I-10 including improvement of pedestrian access for adjacent communities.

Coordination with Utility Agency/Owners (UAOs): Bob Baxter will serve as the Utility Coordination Manager for this project, relying on 12 years of local experience with affected UAOs to perform comprehensive utility coordination. The AW Team has identified twelve UAOs as having active facilities on this project. While most impacts to these stakeholders appear to be avoidable, our team will coordinate throughout design and construction to assure no costly or schedule-impacting “surprises” are encountered.

Review of JEA facilities indicates that both water and/or sewer force mains exist at every side street crossing under the I-10 bridges. Replacement of the pedestrian tunnel will require an accurate location of the 24” FM and 2-69kv transmission lines to avoid or minimize impacts. There are several TECO gas main crossings such as the 20” diameter gas main on Ellis Road that will be located and avoided.

Working Over Active Railroads: FDOT will conduct all railroad coordination and make all agreements available to the DB team. The AW Team understands all encroachments and construction scheduling involving the railroad (such as the bridge widening) will be coordinated with the District Railroad Office prior to commencement. We have extensive experience working over and around active rail lines, including locally on Overland Bridge (CSX), SR 115/21st St Interchange (Jax Port) and CR 210 over US 1 and FEC, as well as statewide on SunRail (CSX) and All Aboard Florida (FEC). All work will be completed following CSX requirements.

SECTION 3 – DESIGN-BUILD PROJECT REQUIREMENTS, IDENTIFICATION OF CRITICAL ISSUES AND OUTLINE TO ADDRESS CRITICAL ISSUES

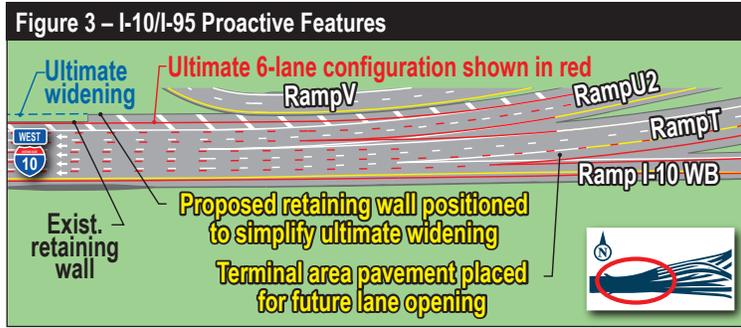
The AW Team is very familiar with this project corridor, having twice constructed improvements at the eastern terminus of the project (the I-10/I-95 interchange). We have thoroughly researched this project and studied the RFP and support documents provided by FDOT.

Roadway

The overall objective of the project is to increase capacity by widening the existing interstate facility to establish five lanes eastbound (EB) from Cassat Ave to the I-95 interchange and five lanes WB from I-95 to the I-295 interchange. Most of this interstate widening will be with concrete pavement, however asphalt pavement will be used between I-295 and Lane Ave. The east end of the project will tie into the improvements the AW Team is currently constructing in the I-10/I-95 interchange. The concrete pavement will be placed on select soil to match the existing pavement subgrade and prevent water from being trapped below the slabs. Additional work includes constructing operational improvements for the I-10 EB exit to I-295, improving vertical clearance of the US 17 southbound (SB) exit ramp (as shown in the RFP concept plans), ramp and cross road operational/capacity improvements at the Lane Ave and Cassat Ave interchanges, constructing retaining and sound walls, and completing sidewalk and pedestrian improvements on cross streets below the interstate.

The proposed roadway improvements include removing sections of the median wall between the two sections of EB I-10 on its approach to I-95. This work, along with other widening activities, overlaps limits of the AW Team’s ongoing I-10/I-95 Operational Improvements Project. **The AW Team recognized this pending widening project and proactively developed several features of the I-10/I-95 project to better harmonize the connection between the two jobs.** These enhancements include: positioning proposed retaining walls along Ramp U2 to accommodate the future ultimate condition, placement of the Ramp T ramp

terminal for future lane opening and positioning of the sound wall along EB I-10 east of Stockton St (See Figure 3).



Concrete Pavement Design

The pavement design is clearly dictated by the RFP and requires placement of new concrete slabs atop 60" of select fill per current standard. This requirement is easily accomplished for the majority of the new construction. However, this criteria creates challenges where existing shoulder concrete is being removed and replaced with new concrete travel lanes.

The AW Team has reviewed available geotechnical borings and pavement corings and found that 60" of required select fill does not currently exist underneath these shoulders. Performing this work in accordance with the approved pavement design will require corridor-wide traffic shifts to install temporary barrier wall (with a narrow offset to traffic) in order to shield the dropoff associated with the 5' deep excavation.

Traffic Control

This section of I-10 is a critical part of Jacksonville's transportation network and serves approximately 134,000 vehicles daily. Safely maintaining flow of this traffic is crucial to the success of this project, as is recognized in the lane closure restrictions outlined in the RFP. This includes maintaining accel/decel lanes at ramp terminals, and preserving turn lane queue capacities. In addition, shoulder refuge along I-10 for disabled vehicles must be maintained, and SSD and stormwater spread control must not be sacrificed during construction.

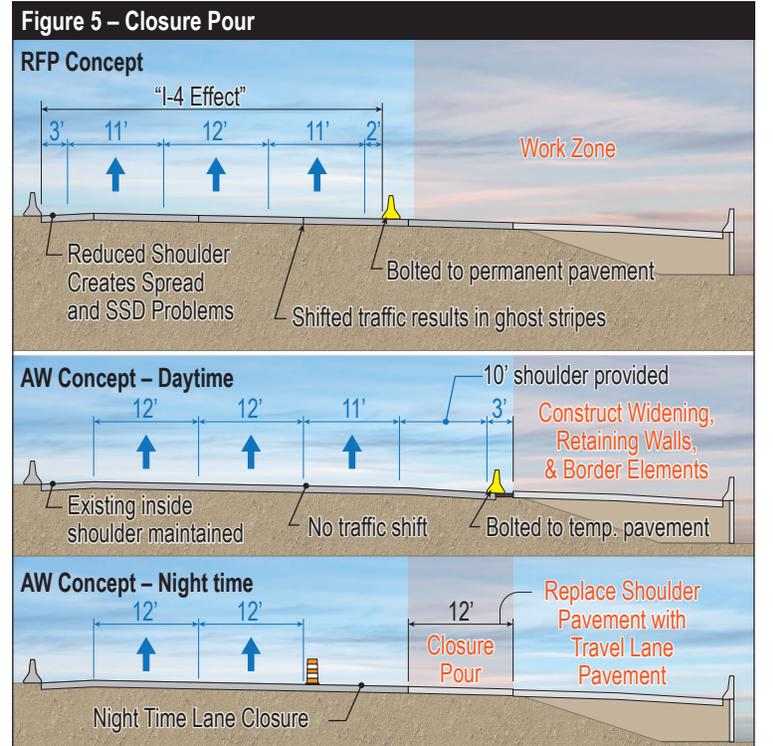
Critical Issue – Roadway Widening: I-10 is plagued by frequent rear-end crashes and other incidents that affect safety and disrupt traffic flow. The existing 1950's era roadway has narrow inside shoulders as well as sharp curves with walls and glare screens. This RFP Concept essentially eliminates the ability to provide 10' shoulders throughout most of the work zone. This will create a similar situation to the I-4 Ultimate project in D5 (see Figure 4), where traffic is sandwiched between two barrier walls, with misaligned concrete joints and ghost striping. This confuses motorists, particularly at night-time and during rain events.



Utilizing the RFP Concept MOT plan for the proposed outside widening on I-10 (see Figure 5 – RFP Concept), traffic on I-10 is shifted to the inside in order to permit placement of temporary barrier wall on the outside shoulder, reducing the shoulder width, eliminating vehicle refuge and impeding emergency responders from reaching crash sites. This shift will further reduce already limited SSD and result in stormwater spread encroaching on the travel lane in superelevated sections.

AW Team Solution: The AW Team will perform a comprehensive shoulder coring program and investigate in-situ soil quality to determine if new concrete slabs can be placed atop existing embankment – eliminating the need for extensive excavation beneath the existing shoulders. A similar approach has been used elsewhere in the District, including an adjacent section of I-10 (from Lane Ave to Cassat Ave) with nearly identical subgrade conditions. **This approach can minimize the amount of traffic shifts along the project by use of an innovative closure pour approach, allowing traffic to be maintained in its current location** - providing full-width shoulders, aligning traffic between existing pavement joints, and eliminating any ghost-striping. This approach is depicted in Figure 5 (AW Concept) and as follows:

1. Place temporary barrier wall on outside roadway, maintaining traffic in its current alignment and providing a 10' outside shoulder.
2. Daytime Operations - Complete all outside drainage, permanent walls, new outside travel lane and shoulder behind barrier wall.
3. Night time Operations - Utilizing a closure pour, remove the existing outside shoulder and replace with the new concrete travel lane. Segments of temporary barrier wall are removed, followed by the existing concrete shoulder and replaced with a high-early strength concrete closure pour. AW has perfected this technique of urban concrete paving on our recent I-95 Concrete Replacement project in D6 (Miami). Production rates of 800 LF per night were achieved on that project, providing a highly efficient method of construction while reducing traffic impacts.



Critical Issue – Cross Road Traffic Control: Widening the I-10 bridges over Lane Ave, Cassat Ave, McDuff Ave and Stockton St involves constructing new piers in the medians of these tight urban corridors. The limited space available greatly restricts the foundation options considering the pile driving restrictions (daytime only) and mobility of required cranes. Construction of foundations and pile caps must be shielded with barrier walls and crash cushions, demanding space from a highly constrained area. Left turn movements onto and off of ramps must also be maintained in accordance with the RFP, which requires accommodations for concurrently turning WB-62FL and WB-50 vehicles.

AW Team Solution: The AW Team has widened and constructed many bridges under such conditions (such as SR 115 over Phoenix Ave) and is currently addressing this issue on the I-95 3C project in Broward County. **One potential solution is to construct drilled shafts that transition directly to columns in lieu of conventional pile foundations.** This reduces the footprint of the

foundation, eliminates noisy pile driving in residential areas, reduces vibration, and expedites construction. A drilled shaft may be installed in two or three days with highly mobile smaller equipment, using planned weekend lane closures rather than the several weeks required by traditional pile foundations. It also avoids adverse rerouting of left turn movements.

Drainage

Ensuring sufficient drainage will be a key factor for this project. The existing roadway, being designed and built in the mid 1960's does not adhere to current criteria. In fact, there are 124 cross slope exception locations and another 47 cross slope variation locations documented in the RFP package. Adding to this, the project adds 2 lanes in each direction and barrier wall replacing the current open discharge into the side ditches. Providing sufficient drainage to keep stormwater spread off of the travel way will require adding more inlets in the super elevated areas and along the new barrier walls. Additionally, many of the existing outfall ditches will now be piped or the ditches regraded due to reduced R/W available for drainage conveyance. All cross drains and side drains will be analyzed for capacity and extended if necessary.

Cedar River has a history of flooding upstream of the I-10/Lane Ave Interchange. The box culverts in Cedar River at this interchange create approximately 2.7 feet of head loss during the 100-year storm event. Multiple drainage improvements have been completed in this area by both FDOT and City of Jacksonville (COJ), including addition of stormwater storage and conveyance facilities. The FDOT's recent drainage improvements project (FIN213114-4) addressed flooding at Cassat Ave by redirecting runoff to a new stormwater pond and by-passing the Highway Ave drainage outfall to Cedar River. Part of these improvements included the installation of a 54" pipe along the north side of the I-10 R/W. The AW Team is aware of the location of this pipe and will work to avoid impacts associated with the proposed roadway widening, retaining walls and drainage improvements on this I-10 widening project.

The St. Johns River Water Management District (SJRWMD) has approved Permit 140206-4, which provides compensating treatment volume for 44 acres of highway impervious area within the Cedar River/ Wills Creek Branch basin. The existing pond will be expanded and deepened, however no additional flow into this pond is proposed, as it already serves to control local flooding. Deepening the pond will impact the existing pond liner as it is seven feet below the bottom of the pond. Modifying the pond will require further assessment of groundwater transmissivity to confirm that this liner does not need to be replaced. The use of ditch blocks in linear swales is being proposed to attenuate the additional post-development flow. The Preliminary Engineering Report identified four pond sites MC-1, MC-2, MC-3 and MC-5 to treat and attenuate runoff from existing I-10 and I-95 within McCoy Creek to compensate for the proposed improvements therein. Three of the four sites have medium-to-high contamination potential. Due to the elevated roadway of I-95 north of I-10, the AW Team will investigate the use of dry ponds in lieu of wet ponds in order to increase treatment efficiency and avoid impacting existing contaminated soils. Alternately, we will investigate using pond MC-2 as offline treatment with a diversion weir to remove a percentage of nutrients from approximately 2,600 acres upstream. Such increased treatment efficiencies could eliminate multiple pond sites proposed in the RFP. Attenuation will be provided by proposed ponds and attenuation weirs in roadside swales.

Critical Issue – Spread and Hydroplaning: Wet-weather accidents are prevalent along this project corridor, with a direct correlation between crashes and the superelevation transition areas. These sections are characterized by shallow cross slopes which create poor sheet flow; adding two new travel lanes in each direction further complicates this issue, contributing to stormwater spread and inducing further potential for hydroplaning.

AW Team Solution: In areas where the lanes slope to the outside, additional inlets will be placed to increase capacity and contain stormwater spread within the shoulders. Hydroplaning is a greater challenge that is typically addressed by adjusting the profile or cross slope of the road, especially in superelevation transitions. While challenging to address on a pure widening project, the AW Team has developed two potential solutions to cure these situations:

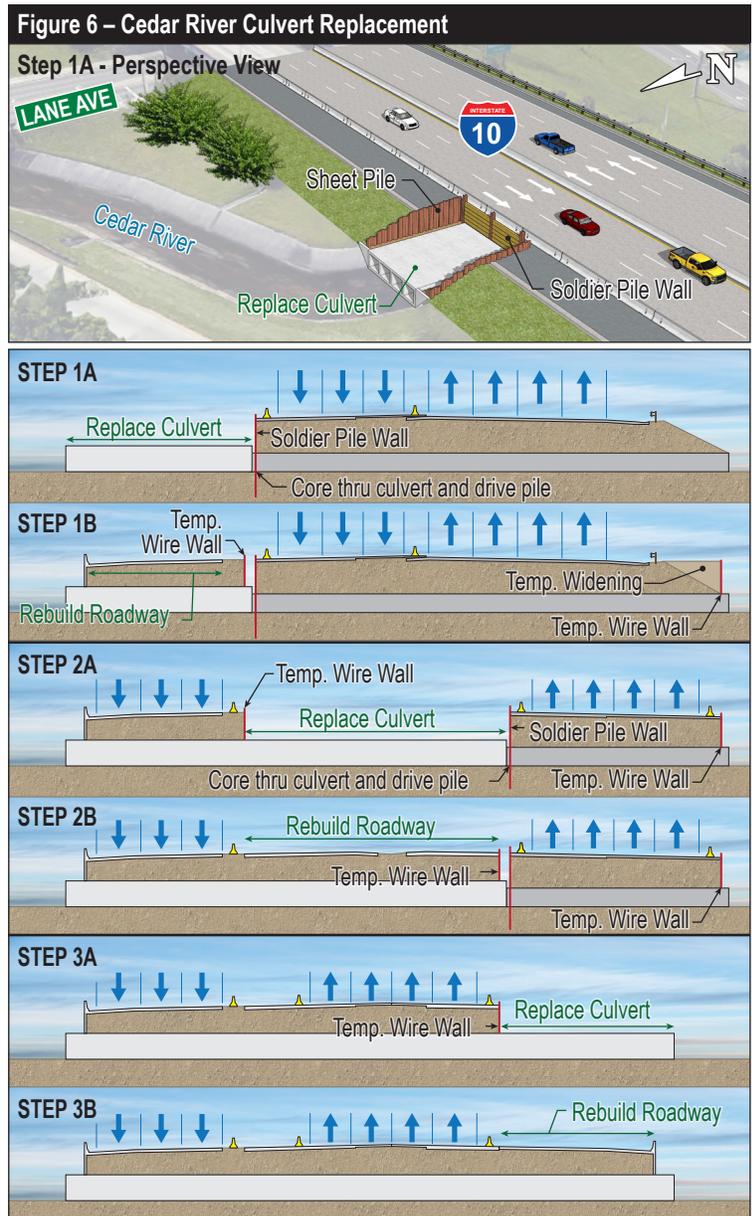
- **Pavement Grooving** – Grooving existing pavement is a proven method of reducing hydroplaning and increasing surface friction. For I-10, the benefit

of grooving critical areas will be weighed against the impact to the existing concrete pavement, for which grinding is prohibited within the current RFP.

- **Bonded FC-5 Overlay** – Placing a bonded open graded friction course with special equipment on critical areas is another potential method to reduce hydroplaning. This approach was successfully implemented on the “Fairbanks Curve” on I-4 in downtown Orlando several years before the I-4 Ultimate project began. The benefit of increased skid resistance and improved surface drainage would be weighed against maintenance and life cycle costs.

Critical Issue – Replacing the Cedar River Culverts: The Cedar River crosses under I-10 at Lane Ave via three separate bridge culverts. The upstream triple 12'x7' culvert under the intersection of Lane Ave and the I-10 WB ramps is to remain. The second culvert (quadruple 9'x7') crossing under I-10 and the third culvert (triple 12'x7') crosses under the I-10 EB exit ramp to Lane Ave will be replaced. Each culvert provides a hydraulic opening of 252 SF. These culverts are nearing the end of their service life, and they do not provide enough hydraulic capacity to prevent upstream flooding. The second and third culverts are mandated by the RFP to be replaced as part of this project. While the replacement of the structure itself is relatively simple, complications such as maintenance of traffic and maintenance of flow create significant challenges.

AW Team Solution: The AW Team's preliminary analysis shows that replacing the 2nd and 3rd culverts with quadruple 11'x7' bridge culverts increases the hydraulic areas by 48 SF and reduces the 100-year floodplain elevation by over 1 foot. As illustrated in Figure 6, the AW Team will replace the culvert under I-10



in three stages, working from north to south. This approach takes advantage of the widening of WB I-10, which provides additional space to place traffic. AW will use temporary sheet pile walls on each side of the existing culvert and a soldier pile wall across the culvert to minimize impacts to the existing roadway and to allow for any ground improvements identified by the geotechnical investigations. The soldier pile wall will include H-piles that are placed through holes cored in the existing culvert and lagging that rests on top of the culvert. **This method eliminates concerns associated with conventional sheet pile walls, which cannot be driven “through” the culvert.**

The AW Team understands the upstream flooding problems and the importance of maintaining flow during construction. The standard practice of using pumps to maintain flow will be inadequate during heavy rainfall due to the flow rates of water at these culverts. During construction AW will maintain at least two barrels of the culvert at all times. Provisions such as temporary weirs will be utilized to establish the water levels at which all barrels will be opened regardless of work activities, thus eliminating upstream flooding concerns.

Geotechnical

Our team will perform additional soil borings and associated lab testing as necessary to confirm existing geotechnical conditions and provide detailed geotechnical evaluations in conformance with FDOT criteria for all components of this project to avoid the potential for unseen conditions and construction delays. This will allow our team to take full responsibility for the geotechnical design of this project. The AW Team’s geotechnical engineer, UES, has completed over 20 geotechnical projects within a 1-mile radius of the I-10 corridor through COJ/JEA continuing service contracts, FDOT design contracts, and numerous private-sector projects.

Foundation types: Foundation types optimal for this project will minimize footprint and disruption, improve MOT, reduce installation duration, minimize vibration effects on existing structures and utilities, and accommodate limited-headroom construction. Drilled shafts, micropiles, and steel (H or pipe) piles are deep foundation types that mitigate these issues more than driven concrete piling and are the leading candidates where constraints (such as piers in the cross street median) or overhead restrictions (such as electric lines) preclude concrete piling.

Use of steel casings: Casings will be installed by the oscillating method to avoid impacting existing vibration-sensitive facilities and foundations. Zones with potential for hole-collapse will have permanent casing.

Vibration and Settlement: Key aspects of our comprehensive Settlement, Noise and Vibration Monitoring Plan (SNVMP) include limiting construction vibrations to protect existing structures by performing driven piling through hard layers, using low impact, low stroke, or hydraulic hammers, and construction techniques such as sound shields to reduce noise impacts of pile driving. We will conduct vibration and settlement monitoring on existing bridges, walls, and nearby buildings.

Test Load Program: The dynamic pile load test program for the planned pile foundations will include a Wave Equation Analysis Program (WEAP), a Case Pile Wave Analysis Program (CAPWAP) to confirm PDA capacity and distribution. Pilot borings and method shafts will be performed for bridge drilled shaft foundations. Crosshole Sonic Logging (CSL)/Thermal Integrity Profiling (TIP) will be performed on all non-redundant bridge drilled shafts. CSL access tubes will also be installed along the full length in all redundant drilled shafts from the tip of shaft to a point high enough above top of shaft to allow CSL testing on all drilled shafts. 100% PDA Testing will also be evaluated to accelerate schedule and reduce public impacts.

Structures

AW has assembled a robust bridge design and construction team to tackle the 12 bridge widenings, two bridge culvert replacements, a bridge culvert widening, a pedestrian tunnel replacement, retaining walls, noise walls, railroad crash walls, and other structures within the project. All foundations will be deep foundations and the bridges will receive the aesthetic treatments listed in Appendix M.

The AW Team has a clear understanding of, and solutions for, the various challenges and constraints of the project, including managing substandard bridge vertical clearance, widening piers while accommodating left turn movements and constructing new retaining walls in front of existing retaining walls.

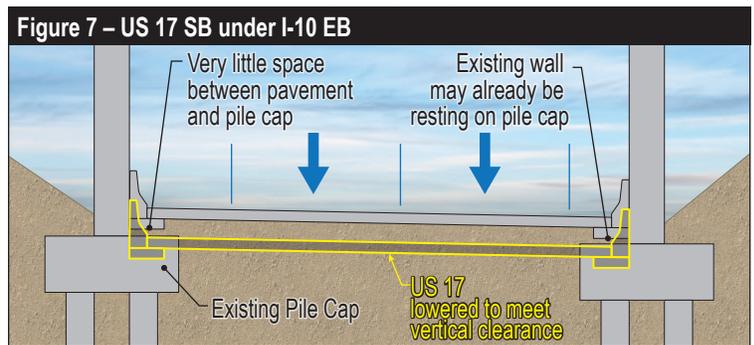
Retaining walls will be required throughout the corridor to keep work within the existing RW and to span the distance between the numerous overpasses. MSE walls typically have long reinforcement straps and installation will result in additional excavation with associated traffic impacts or temporary sheet pile walls. To limit these impacts, we are considering alternatives to MSE walls such as soil-nail, soldier pile and sheet pile walls with concrete facades. No perched or toe walls will be included. We will also construct cut off walls in the slopes under several bridges to provide wider sidewalks, and these walls will be positioned to avoid the battered piles of the existing end bents.

Day Avenue Pedestrian Tunnel: The AW Team will replace the Day Avenue pedestrian tunnel, utilizing the same basic construction approach as the Cedar River bridge culvert. Pedestrians will be detoured to McDuff as outlined in the RFP, and the AW Team will address any ADA or other deficiencies along the route. The replacement tunnel will be a box culvert that includes 24-hour, tamper proof lighting, positive drainage to keep the tunnel dry, and entrance features as detailed in the RFP.

Critical Issue – Widening Bridges without Reducing Clearance: None of the bridges within the project corridor meet the Department’s 16.5’ minimum vertical clearance requirements. The Design Variations that have been provided require that the vertical clearance for the widening be not less than what is existing. In addition, the RFP contains aesthetic requirements to keep the exterior beam consistent with those behind.

AW Team Solution: The AW Team has widened numerous urban bridges with strict limitations on vertical clearance. In many cases, using Florida-I Beams (FIBs) will mitigate superstructure depth losses due to cross slopes as the heights of a FIB for a given span length are typically less than AASHTO beam heights for the same span length. The AW Team will also evaluate a common option that thins the beam section by removing the top flange and a portion of the web. This design, which can meet all structural requirements with minimal special forming, may be necessary for WB I-10 over the CSX Railroad.

The design variation included within the draft RFP (Appendix H) indicates allowances for the vertical clearance under the I-10 EB bridge over US 17 SB to be maintained at 14.37’ (existing). However, the VE study (a reference document in the RFP) illustrates a desire to increase this vertical clearance to 16’. The RFP concept plans address this by lowering the profile of US 17 SB. This proposed lowering of the grade creates an additional challenge with the existing bridge footers, which, per the as-built bridge plans, would be exposed. This would also complicate the construction of traffic barriers intended to shield motorists from the piers located within the clear zone (see Figure 7).



The AW Team will perform subsurface investigations to determine the actual depth of these footers to better understand the constraints posed. Alternative options such as narrowing the shoulders could help avoid this conflict but would require a design variation for shoulder width and sight distance. We will partner with FDOT to develop a plan moving forward and rely upon our extensive experience in concrete replacement and subgrade work should the Department choose to reprofile this section.

Signing and Pavement Marking

Existing pavement markings will be modified as necessary for the new roadway design. Any conflicting existing pavement markings on concrete pavement will be removed by hydroblasting, and new concrete pavement marking will be provided to properly accommodate the new lane and ramp configurations. Overhead

signs along the project corridor will either be removed, replaced, or updated to accommodate the roadway and ramp design. All signs will be modified and mounted as prescribed by RFP Appendix K. All existing regulatory, warning and other signs along the project corridor will be inventoried; any existing single and multi-post sign assemblies impacted by construction will be entirely replaced and upgraded to meet current standards. New overhead sign structures will be designed to span only one direction of traffic. All new overhead panels will meet new sheeting requirements.

Critical Issue – Coordinating Sign Construction Between Projects:

The AW Team has identified eight overhead sign structures currently slated to be installed under AW's I-10/I-95 Operational Improvements Project that will require replacement under this I-10 Widening project due to shifts in the roadway alignment. These signs are very expensive, and it is in the Department's interest to install them only once.

AW Team Solution: As the DB firm on the I-10/I-95 Operational Improvements Project, AW is uniquely positioned to work with the Department to avoid replacing brand new signs. One potential solution is to keep in place the existing sign structures and utilize temporary overlays in the interim until the new signs for this widening project are constructed. A similar sign issue arose between the I-10/I-95 Operational Improvements Project and the Overland Project where one project would install three truss signs that the next project would immediately remove and replace. **As the DB firm for both projects, AW worked with the Department to redesign and install the signs to accommodate both projects, saving hundreds of thousands of dollars in "throwaway" costs.**

Signals

In accordance with the RFP requirements, the project will address the signalized intersections at:

- Lane Ave at Ramp C and Ramp F
- Lane Ave at Ramp D and Ramp E
- Cassat Ave at Ramp G and Ramp J
- Cassat Ave at Ramp H and Ramp I
- Cassat Ave at Lenox Ave
- McDuff Ave at Ramp M and Ramp P
- McDuff Ave at Ramp N and Ramp O
- Luna St at Ramp L
- Stockton St at Irene St

Should these signals be impacted by the widening construction, new signal assemblies for the intersection will be designed. Any new traffic signal controller assemblies required per design will be compatible with the existing COJ traffic signal system and be provided with a UPS. Coordination will be conducted with COJ on the design and construction of the signals. Additionally, pedestrian crossing signal assemblies will be evaluated and will be updated with push buttons and count-down signal heads if needed.

Lighting

The AW Team will develop lighting plans for the project with all pull boxes, conduits and service drops strategically located to be easily accessible, while maximizing efficiency and simplifying maintenance. The existing median lighting will be replaced with conventional shoulder lighting with LED luminaires. Conventional lighting for intersections and crosswalks will be improved at cross roads and any existing poles to remain will be upgraded with LED fixtures. In addition to conventional lighting, underdeck lighting will be provided at Stockton St, McDuff Ave, Cassat Ave, and Lane Ave. Tamper-proof 24-hour lighting will be provided in the Day Ave Pedestrian Tunnel. The AW Team lighting design will closely coordinate with FDOT to provide the best quality lighting system and at the same time help minimize future maintenance cost. Light pollution and trespass will be reviewed by the team to minimize impact to the adjacent neighborhoods.

ITS

Existing SunGuide infrastructure within the project limits include:

- Fiber optic communications located in existing conduits
- Closed-circuit television (CCTV) cameras located on existing poles and overhead sign structures
- Microwave vehicle detection systems (MVDS) located on existing poles and sign structures
- ITS cabinets and electrical power service for CCTV and MVDS devices

AW will maintain these devices throughout construction and relocate as necessary. Additional ITS devices will be required to provide motorist information, full video

coverage, and detection of mainline and ramp movements. Fiber will be maintained and/or relocated into bridge and wall barriers and underground conduit throughout the project limits. Any new or relocated devices will be integrated into the District's SunGuide database. AW is extremely familiar with the requirements of maintaining this ITS equipment having done so on our previous "Big I" project and Overland Bridge Project as well as our on-going I-10/I-95 Interchange Improvements Project. Working hand in hand with the ITS contractor will ensure that we provide clear, constructible plans that are coordinated with the other disciplines to provide seamless maintenance, installation and integration throughout the construction. **The AW Team's innovation will include achieving early Department consensus on proposed CCTV camera coverage by utilizing drone film footage.**

Environmental

The replacement of the bridge culverts for the I-10 Mainline and EB exit ramp over Cedar River and the extension of the bridge culvert over McCoys Creek will require authorization from SJRWMD and USACE. We understand that the Department is securing these permits, and it will be the DB Team's responsibility to comply with them or obtain any modifications should our design warrant it.

The I-10 WB bridge over King St has been identified as having asbestos-containing material and it is the DB Team's responsibility to comply with the requirements of FDOT Topic No. 625-020-020, "Asbestos on Bridges" and Special Provision 110-6.6 (SP1100606) of the Specifications. The concrete coatings on the Day Ave pedestrian tunnel have been identified as containing lead-based paint and it is the DB Team's responsibility to handle and dispose of the paint waste from the demolition of the tunnel as hazardous waste pursuant to Sections 110-6 and 561 of the Specifications.

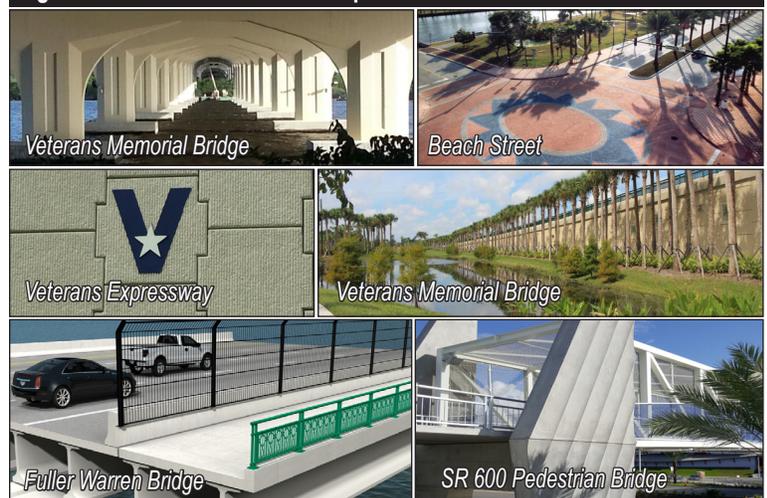
Eagle Nest #DU951 is approximately 140 feet from Pond Sites CR-1 and CR-2. Because portions of these ponds are within the primary zone (330') of the nest, the AW Team will utilize the National Bald Eagle Management Guidelines during the modification activities of these two ponds. This will include phasing the work so that all work within the primary zone and the secondary zone (660') will be conducted outside of nesting season.

Having constructed several major projects in urban Jacksonville on which ash contamination was found (Big I), the AW Team is acutely aware of the importance of properly identifying and disposing of ash. All field personnel will receive specific training regarding ash, and AW will work with the FDOT's CAR contractor on removal should any be identified.

Aesthetics & Landscaping

The AW Team understands the difficulty involved with developing the conceptual aesthetics package and the importance of avoiding changes. Team members Ron Hoogland, PE and Glenn Herbert, RLA are currently working with COJ on developing the Art Walk project in conjunction with the I-10/I-95 Operational Improvements project and have further similar experiences such as the San Sebastian Bridge in St. Augustine and SR 600/US 92 Pedestrian Improvements in Daytona. Our unique current experience makes the AW Team extremely well prepared to deliver the Department's aesthetics package and other public commitments (see Figure 8).

Figure 8 – AW Team Aesthetics Experience



The AW team recognizes the need to submit a Landscape Opportunity Plan that meets FDOT's program goals and integrates the Department's context sensitive design intent. The Department has partnered with local stakeholders and COJ to develop context sensitive enhancements supporting the complete streets initiative, while improving pedestrian/commuter safety and long-term maintenance. Cross streets under I-10 will include pier protection as required, a shared use path (12' minimum), ADA access and underdeck lighting. The pedestrian space will be widened by removing a section of sloped abutment and installing 10' high cut-off walls. This approach will improve connectivity between the Riverside and Murray Hill neighborhoods south of I-10 with the Lackawanna and North Riverside neighborhoods to the north.

The most prominent feature of the aesthetics package is the replacement of the Day Ave pedestrian tunnel with welcoming entrances and 24-hour lighting. Other features of the package include sound walls throughout the corridor, and neighborhood entrance features. Sound walls and structural elements include textured finishes and carefully laid out painting schemes.

Construction

Safely moving motorists through the work zone will be our highest priority. Other challenging aspects of this project include widening existing bridges over active roadways, removing and replacing the box culvert at Lane Ave and the pedestrian tunnel along Day Ave all while adhering to the project commitments. Our proposed construction staff for this project have worked on numerous projects in Jacksonville over the years including the I-10/I-95 Interchange (the Big-I) and the Overland Bridge, both of which include many similar construction elements to this project such as widening existing bridges and concrete pavement roadways, as well as working over and around the active CSX Railroad.

Safety

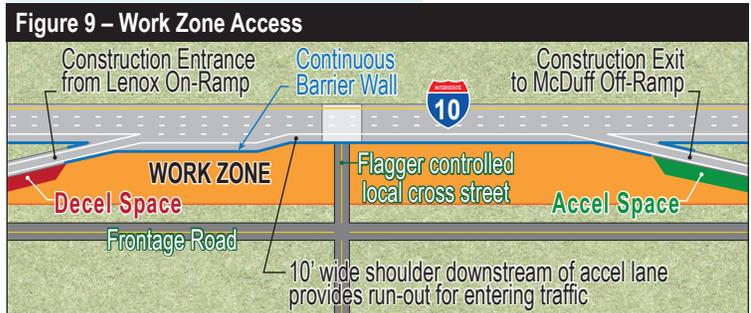
The safety of the travelling public, including pedestrians and bicyclists, is paramount to a successful project. The AW Team's goal is to reduce the impacts to the travelling public to the greatest extent possible, leading to a safer work zone and minimizing public irritants. AW's experience in the region has made the Team well aware of the MOT challenges along this corridor. The MOT Plan will minimize impacts to the travelling public by separating the work zone from the travel lanes with temporary barrier wall, and by accessing the work zone from interchange entrance and exit ramps and not I-10 itself.

AW will partner with the Department to develop mutually beneficial haul routes to bring materials and supplies to the work zone in a manner that limits passing through adjacent neighborhoods. AW is committed to being a good neighbor with those that live near and along the project which will also help minimize complaints.

The safety of all project personnel is equally important. Top priorities include training and educating crews to produce high-quality work in the safest possible manner. AW's crews are actively involved in the work planning, safety awareness, and environmental requirements using processes that include an initial site-specific orientation, safety plans, pre-activity work plans and weekly toolbox talks.

Critical Issue – Safe Work Zone Access: Given the heavy traffic and tight urban corridor, construction vehicle and material/equipment delivery access to and from the work zone must be carefully planned and timed so as to minimize impacts to traffic and optimize project safety.

AW Team Solution: For all outside roadway work on I-10, continuous temporary barrier wall will prevent access to the work zone via the I-10 mainline. As illustrated in Figure 9, the numerous on/off ramps within the corridor will be utilized to provide safe and low speed access to the work zone. These access points will be clearly



marked and communicated with all personnel and subcontractors and compliance strictly enforced. All access points will include acceleration/deceleration lanes to/from the ramps and the work zone, along with soil tracking prevention devices.

Construction of the median improvements, including median drainage and barrier wall will be completed behind temporary barrier wall positioned to maintain existing SSD. Acceleration and Deceleration lanes, meeting the requirements of AASHTO Tables 10-3 and 10-5, will be provided within the wide shoulder area in the closed median. Having constructed several major projects in tight urban spaces around Jacksonville, including the adjacent I-10/I-95 projects, AW is familiar with the needs of residents and will work to accommodate those needs. This includes not using their neighborhoods as haul routes.

Shared Use Path Construction

In order to construct the 12' wide shared use paths, the AW Team will employ top-down construction methods due to the reduced vertical clearance. The top portion of the existing slope pavement will be removed, and the embankment will be benched down. Soil nails with reinforcing steel mesh will be installed to reinforce and stabilize the soil face. Shot-crete will be applied to the reinforcing mesh and soil face, and once cured, the process is repeated, benching down levels until the wall reaches the ground (see Figure 10). Decorative panels can be incorporated in the design to provide an aesthetically appealing finished product.

Figure 10 – Cut-off Wall Construction



Coordination

AW is constructing the adjacent I-95 at I-10 Operational Improvements, which will make construction coordination seamless. The same DB team will be managing the interface between the projects, and can take advantage of the knowledge gained while finalizing the design. This will maximize efficiency, with the goal of less lane closures and MOT Phases, and simplify the movement through this heavily travelled corridor.

Concrete Pavement Construction

AW has performed hundreds of lane miles of PCCP construction and widening in Florida and will employ techniques developed over time to minimize damage to the existing PCCP that is to remain. In order to minimize potential spalling of the existing pavement, high grade ramps (constructed with firm material such as limerock and/or asphalt millings) will be utilized to access the work areas rather than dropping off or climbing up the concrete face with equipment. AW will maximize the amount of new concrete pavement placed with our paver. AW's proposed closure pour for the new concrete lane adjacent to the existing pavement will be constructed with a Roller Screed. This will eliminate potential damages from heavy construction equipment loads on the existing pavement.

Rubber tracks will be installed on our concrete paver to further reduce the risk damage to the existing concrete. Plywood will be placed prior to running all other tracked equipment on the existing concrete. Finally, a vacuum/sweeper truck will be utilized to ensure that all concrete surfaces are kept clean.

Bridge Widening

The existing bridge railing will be maintained as long as practical and bridge demolition will be performed after the new pre-stressed beams have been set. A temporary wood deck will be placed as a floor between the existing exterior beam and new beam that will catch all debris from the demolition operation. This method eliminates dust and debris falling on the underlying roadway, provides a safe platform for the construction workers, and minimizes construction exposure (See Figure 11).

Figure 11 – Demolition Safety



The AW Team is excited to continue our relationship building your most complex projects and improving this very important corridor!