



RFP # 20250383
CHARLOTTE COUNTY,
FLORIDA

DESIGN - BRIDGE SCOUR
STUDY AND
COUNTERMEASURES

SUBMITTED: MAY 29, 2025

PREPARED FOR:

Charlotte County Purchasing Division
18500 Murdock Circle, Suite 344
Port Charlotte, Florida 33948-1094

PREPARED BY:



Arcos Bridge, Inc.
8112 Champions Forest Way
Tampa, FL 33635



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18500 Murdock Circle, Suite 344
Port Charlotte, Florida 33948-1094

RE: RFP NO. 20250383 DESIGN – BRIDGE SCOUR STUDY AND COUNTERMEASURES

COVER LETTER

Dear Selection Committee Members:

Rolando Corsa, PE, CBI will serve as the principal-in-charge, project manager and the primary contact person for Charlotte County related to this project. He can be contacted at (813) 767-0538 or rcorsa@arcosbridge.com. Michael Giardullo, PE, will serve as the deputy project manager and secondary contact person. He can be contacted at (941) 916-8073 or mgiardullo@weilerengineering.org. Arcos Bridge, Inc. (Arcos), in association with Weiler Engineering Corporation (WEC) and Johnson Engineering, LLC (JE), both Apex companies, are the best selection for this project for reasons that include:

1. Rolando Corsa, PE, CBI and Michael Giardullo, PE, have worked together on bridge and structural engineering projects in Florida for over 7 years.
2. Mr. Giardullo and Mr. Corsa have worked to together on six (6) Charlotte County bridge repair and replacement contracts including eight (8) Rotonda bridge rehabilitations and the repair/replacement of Rotonda bridge 014113 that was damaged by Hurricane Ian in 2022.
3. Mr. Corsa was also the Engineer of Record for five (5) additional Rotonda bridge rehabilitations and four (4) South Gulf Cove bridge widenings and rehabilitations for Charlotte County.
4. Mr. Giardullo and Mr. Corsa worked together on the Reynolds Bridge replacement project located in Arcadia, FL.
5. Mr. Giardullo has served as the County Engineer for DeSoto County since 2011 and has been responsible for the scour study and design for 6 bridges.
6. In addition to being a Professional Engineer, Mr. Corsa is also an FDOT Certified Bridge Inspector (CBI) and a General Contractor.
7. Our Team highly regards our collaborative partnership with Charlotte County, and we are dedicated to operating as an integrated and cohesive component of the County's public works team.
8. We will offer expert technical guidance with the mindset that we share a collective ownership of these bridges.
9. Mr. Corsa was the EOR for the 2018 scour revetment plans for the Washington Loop Bridge over Prairie Creek (#010009) in Charlotte County to repair scour caused damage by Hurricane Irma (2017).
10. Mr. Corsa was the EOR for the 2020 repair plans for one of the subject bridges for this RFP, the CR775 Bridge over Ainger Creek (#010062). Although the repairs did not include creek revetment systems as will be required for this project, replacement of the failed end bents' slope protection behind the seawalls was recommended, implemented, and withstood recent hurricanes.
11. Our Team is prequalified by FDOT in work categories that include bridges, roadway, survey, hydraulics, utilities, geotechnical, miscellaneous structures, bridge inspection, bridge load rating and CEI.
12. Our Team has extensive experience providing bridge engineering services related to flood/storm damaged bridges including negotiations with FEMA related to providing the required documentation for funding repairs and/or replacement of bridges.
13. Mr. Corsa has provided training courses at engineering industry conferences on topics relevant to the expertise that will provide value to the County on this project that include: *Bridge Structure Flood Emergency Training, Flood Damaged Bridges, and Bridge Maintenance Management for Florida Municipalities*.

Respectfully submitted,

Arcos Bridge, Inc.

Rolando Corsa, PE, CBI
Principal

TAB I

TEAM PROPOSED FOR THIS PROJECT

A. Background of the personnel

1. *Project Manager*
2. *Other Key Personnel*
3. *Consultants*

I. TEAM PROPOSED

Arcos Bridge, Inc. will be the prime consultant for this project. Our sub-consultants include Weiler Engineering Corporation and Johnson Engineering, LLC, both under the umbrella of Apex Companies, LLC. The following narratives provide background information about the key personnel proposed for this project. See their resumes in **Tab XII** for more detailed information about each person's experience. The following Team members will not be substituted without the express permission of the County:

Rolando Corsa, PE, CBI will serve as the Project Manager, Principal-In-Charge and Lead Engineer for this project. Rolando will lead the design team and ensure that all documents, plans, drawings, and specifications will meet or exceed the County's design requirements. As Project Manager, Mr. Corsa will be responsible for the documentation of project communications between the County and the design team. He will also take the lead in preparing or reviewing all technical memorandums and reports submitted to the County for the design team. Mr. Corsa graduated from the University of South Florida in 2000. He has been responsible for the design of new and replacement bridges and the inspection, evaluation, and rehabilitation design of existing bridges. His bridge experience includes the design of scour revetment systems, cast-in-place concrete box post-tensioned bridges, composite steel rolled beam and welded girder bridges, steel truss bridges, prestressed concrete AASHTO, Florida-I Beam and Florida Slab Beam bridges, cast-in-place slab bridges, Fiber Reinforced Polymer (FRP) beam bridges, Geosynthetic Reinforced Soil-Integrated Bridge System (GRS-IBS) bridges, 3 and 4 sided concrete box culverts, precast concrete frame bridges, and inspection and load rating of conventional and moveable bridges. His experience also includes designing miscellaneous transportation structures such as sign and mast arm structures, weirs, seawalls, temporary bridge steel support towers and sheet pile, cantilever, and anchored walls.



Michael J. Giardullo, PE will serve as the Deputy Project Manager and will assist Mr. Corsa with the revetment system designs for this project. Mr. Giardullo has been with Weiler Engineering for 19 years and currently serves as a Principal and the Director of Civil Engineering. Mike has performed design, permitting, and project management services for many municipalities including countless roadway, bridge, and stormwater projects in South and Southwest Florida. He has worked closely with FDOT, FDEP, SWFWMD, ACOE, and other regulatory agencies to complete project for both local government and state agencies. He is an expert in many types of funded projects and completing requirements to receive funding, design, construct, and meet stated requirements of the funding source.

Laura B. Herrero will provide Water Resources and Ecological services. Laura joined the Johnson Engineering in 2000 and serves as director of the firm's environmental consulting team, whose ecologists have more than 100 years of combined experience. As a certified ecologist, her duties include State and Federal wetland jurisdictional determinations, protected species surveys, habitat and species management plans, coordination and permitting with the Florida Fish and Wildlife Conservation Commission (FWC) and U.S. Fish and Wildlife Service (FWS), FWS Biological Assessments and Biological Opinions, wetland/listed species mitigation proposals and mitigation monitoring, Environmental Resource Permit and Federal Dredge and Fill applications, as well as follow-through to permit issuance and post-permit compliance. She is also an FWC Authorized Gopher Tortoise Agent, Federal Aviation Administration Qualified Wildlife Biologist, and FWS qualified caracara observer with over 1,600 hours of caracara survey experience and 40 nests found to date. Laura has served as the Project Manager and/or environmental lead for the permitting of many private and public sector projects and has provided expert witness testimony regarding ecological issues related to Lee and Collier County zoning cases.





Robin Palmer, PE will provide environmental services. She is the Past President of the local Peace River Engineering Society. Ms. Palmer served for 4 years on the conference planning committee for the annual Southwest Florida Water Resource Conference held in Ft. Myers. In 2015, Ms. Palmer was recognized by the Governor for her first-place award in technical writing at the ASCE Florida Section Annual Conference. She has served as the project manager for over 60 projects for the FDEP since 2016.

Ashlie Maberino, PE will provide permitting services. Mrs. Maberino is a graduate from Florida Gulf Coast University with a Bachelor of Science in Civil Engineering. Mrs. Maberino has over 6 years of engineering experience. Mrs. Maberino's experience is in site design, permitting, utility studies, utility management, and stormwater design. Through her role as a Design Engineer, Mrs. Maberino has worked with local governmental agencies and municipalities on site design and permitting. Mrs. Maberino has worked with SWFWMD, ACOE FDOT, FDEP, and other permitting agencies on numerous projects.



Brian Corso will provide Quality Assurance / Quality Control (QA/QC) services. Mr. Corso has worked as the lead structural designer on many projects that require an understanding of schematic design, design development, material selection, and cost engineering. Mr. Corso has done many different types of projects throughout South and Southwest Florida that include private entities and government agencies. During his time at WEC, Mr. Corso has displayed economical practices by achieving the goals of the project while implementing cost saving techniques during the design phase of his projects.

TAB II

PROPOSED MANAGEMENT PLAN

A. Team Organization

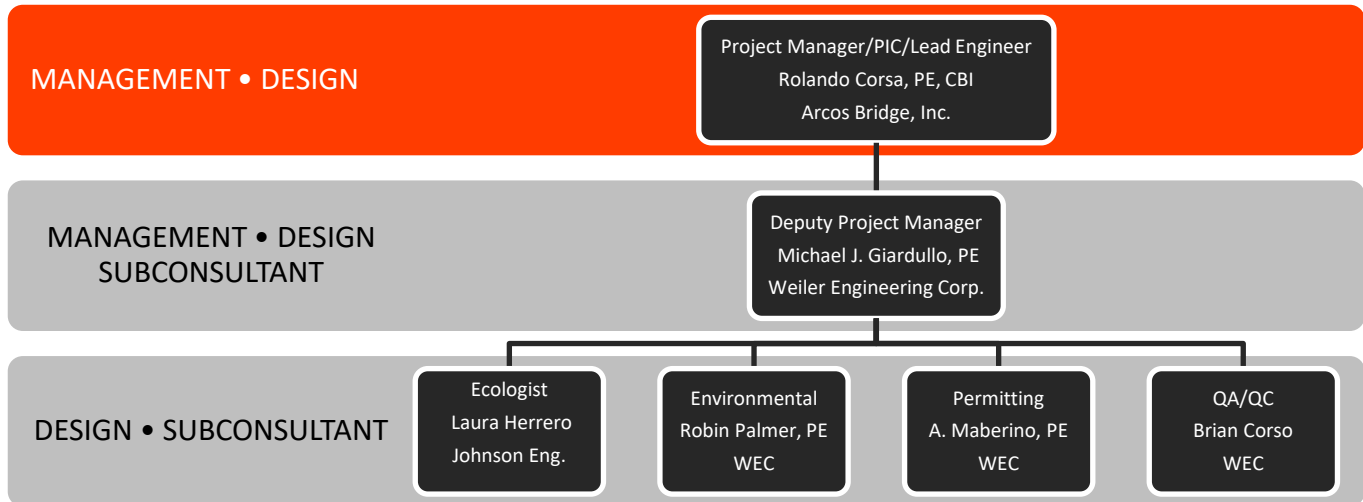
1. *Design Phase*

2. *Construction Phase*

II. PROPOSED MANAGEMENT PLAN

A. Team Organization

The following Organizational Chart provides a graphical summary of the proposed staff and associated responsibilities for Arcos and our subconsultants WEC and Johnson Engineering:



1. Design Phase

Our objective is to provide exceptional professional design services that exceed client expectations through effective project management, encompassing planning, scope, scheduling, budgeting, and quality assurance. We are dedicated to building continued trust with Charlotte County, the community, and stakeholders by utilizing our team's extensive experience, adaptability, and collaborative spirit. Having previously partnered successfully with the County, our cohesive team is committed to addressing all project challenges and achieving outstanding results through strong leadership and teamwork.

2. Construction Phase

As stated in the RFP Scope of Services, our Team will provide the following services during construction:

- Review and approve shop drawings.
- Review and respond to Requests for Information (RFI) submitted by the Contractor.
- Review substitution requests from the Contractor or Owner and provide recommendations.
- Attend Construction Progress Meetings when required by the County via Teams or other web conferencing.
- Conduct periodic site visits to verify construction aligns with Contract Documents and design intent or address specific issues raised by the Owner or Construction Management team.
- Review and approve mitigation plans for construction errors or defects.
- Prepare technical documents (sketches, drawings, specifications) for proposed change orders or contractor-issued changes.
- Participate in preparation of Change Orders.
- Prepare Record Drawings.

The following best practices explain our management approach for this and all our projects during the design and construction phases:

1. Clear communication between the design team and the County is a key ingredient in the recipe for a successful project. From the development of a comprehensive scope of services to the final punch list at the close out of construction, our focus on the communication of information is crucial.
2. We personalize our approach to the communication of information depending on the requirements of the client. We are also accustomed to presenting technical issues, in our reports and oral presentations, in layman terms for non-technical people.
3. Immediately following Notice-to-Proceed, we propose to conduct a meeting with the County Project Manager, County Bridge Engineer, and the County Bridge Maintenance Supervisor to review the design criteria for these bridges. We also want to discuss the County's preferences related to bridge revetment system components. The primary intent of this meeting is to document the County's objectives, preferences, and requirements.
4. We will work with County project managers to clearly define the scope of services in our up-front proposal and deliver those services on budget and on time, every time.
5. We propose to conduct bi-weekly progress meetings with the County staff during the design phase to keep all parties informed of our progress and to gain consensus on decisions to move forward.
6. We encourage client participation on important decisions - NO SURPRISES!!!
7. We will utilize high quality visual aids at meetings and brainstorming techniques to assist in reaching consensus.
8. Arcos will prepare a meeting agenda prior to all design meetings and prepare detailed minutes after each meeting with a summary of the action items that need to be accomplished before the next meeting.
9. We maintain close working relationships with most of the bridge contractors in Southwest Florida which allows access for discussions and feedback on constructability issues during design.
10. If we need to make any assumptions during the design phase particularly on bridge repairs projects because of unknown or latent details, we communicate these assumptions to the contractor in the plans. We also let the contractor know that if our assumptions turn out to be incorrect, we want to be alerted as early as possible so we can assist in developing any required revised repair details.
11. Our Team's proximity allows us to function as a seamless extension of the County's staff.
12. We return phone calls and e-mails within 24 hours or less.
13. If we do not have an immediate response, we let you know we need some more time and provide a deadline to get back to you.
14. We ensure that everyone involved is included in e-mails as appropriate.
15. We schedule impromptu meetings when issues arise that require reaching consensus among all project participants.
16. We prepare a diary to document all site visits during construction of a project and share it with project managers and other stakeholders.
17. We prepare comprehensive requests for proposals that provide clear and concise summaries of the project for purchasing and the contractors.

TAB III

PREVIOUS EXPERIENCE OF TEAM PROPOSED FOR THIS PROJECT

A. Describe projects

III. PREVIOUS EXPERIENCE OF TEAM

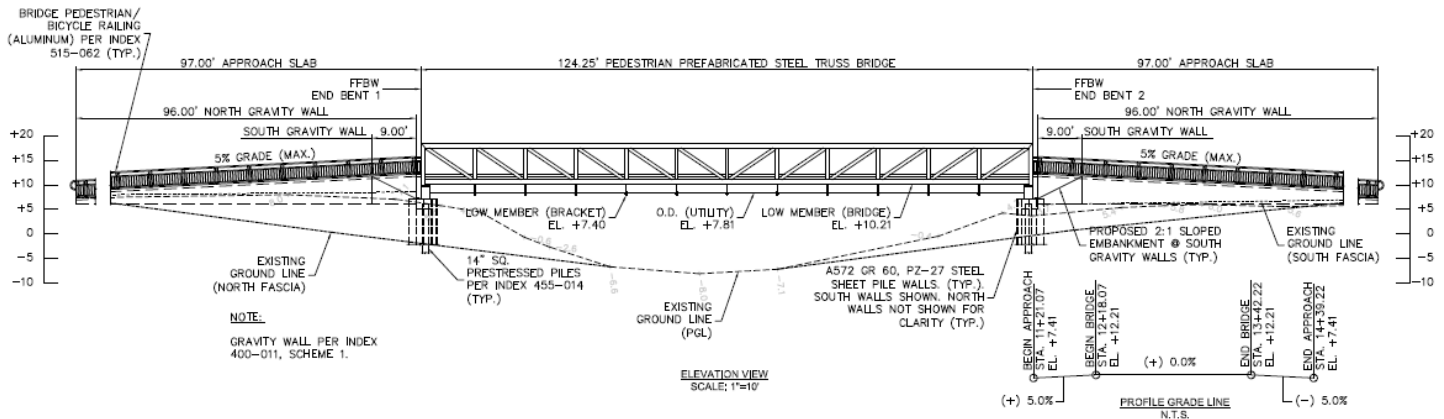
The following are relevant project examples where our proposed Team worked together to provide similar design tasks for the County:

Ainger Creek (CR 775) Bridge Rehabilitation, Charlotte County, FL

– Mr. Corsa along with Johnson Engineering as a subconsultant, prepared comprehensive bridge rehabilitation design plans for this bridge. The superstructure for the Ainger Creek Bridge is a continuous, 4 span, cast-in-place concrete slab bridge with a total length of approximately 116 feet. The superstructure is supported on pile bents that consist of cast in place concrete caps and prestressed concrete piles. The bridge was constructed in 1981 and was widened in 2002. The repairs included: concrete spall repairs, rip rap repair/replacement behind the seawalls, undermining repairs at end bents, sidewalk repair/replacement, guard rail replacement, pedestrian railing replacement, expansion joint replacement, and bridge deck repairs.



Midway Boulevard Pedestrian Bridge over North Spring Lake, Charlotte County, FL – This project includes the design, permitting and construction of the approach sidewalks and a new pedestrian bridge to carry the new sidewalk on the northwest side of Midway Boulevard over North Spring Lake. Mr. Corsa was a subconsultant to Johnson Engineering. The existing Midway Boulevard Bridge is a four span, cast in place concrete slab bridge supported on prestressed pile bents. The total length is approximately 102 feet and it provides four lanes of traffic and shoulders. The new pedestrian bridge is a 124-foot span prefabricated steel truss with stringers and floor beams on pile supported concrete abutments. The bridge was designed to accommodate numerous Charlotte County utilities.



Emil Sweptson (CR 776) Bridge Rehabilitation, Charlotte County, FL

– Mr. Corsa with Johnson Engineering as a subconsultant, prepared comprehensive bridge rehabilitation design plans for this bridge. The superstructure for the Emil Sweptson Bridge is a continuous, 12 span, cast-in-place concrete slab bridge with a total length of approximately 390 feet. The superstructure is supported on pile bents that consist of cast in place concrete caps and prestressed concrete piles. The bridge was constructed in 1980. The repairs included: concrete spall repairs, rip rap repair/replacement, undermining repairs at end bents, sidewalk repair/replacement, guard



rail replacement, pedestrian railing replacement, expansion joint replacement, and bridge deck repairs.

Babcock Ranch Entrance Bridge, Charlotte County, FL – Mr. Corsa worked on a team including Johnson Engineering, and prepared the final design plans and specifications in a design build format with Thomas Marine Construction for the entrance “faux” bridge to the new Town of Babcock Ranch off FL Route 31. The new entrance bridge incorporated 140 foot long by 16 feet high steel through trusses supported on shallow concrete spread footings. The roadway embankment was supported using a mechanically stabilized earth wall system using concrete blocks and geosynthetic geogrids.



Elkcam Waterway Water Control Structure, Charlotte County, FL – Mr. Corsa provided specialty structural design services for Thomas Marine Construction on this project where Johnson Engineering was the engineer of record. Mr. Corsa designed and provided structural drawings for structures that included a precast concrete box culvert, cast-in-place concrete wingwalls and a cast-in-place concrete weir structure as the Specialty Structural Engineer.

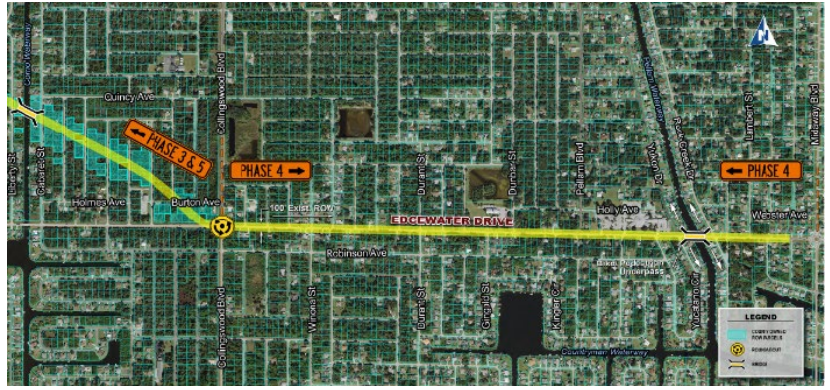
Rotonda West Bridge Repairs, Charlotte County, FL – Mr. Corsa along with WEC has recently been working with Charlotte County’s public works staff for various years on repair plans for the community’s various bridges, including Bridge 014113. Mr. Corsa had just submitted 60% bridge repair plans to the County for review for both bridge 014113 when Hurricane Ian hit southwest Florida. Mr. Corsa performed an emergency inspection after the hurricane and recommended bridge closure. Mr. Corsa performed a cursory review of the alternatives to either repair or replace the damaged bridge. Repairing this bridge would include replacing the Span 1 superstructure (beams and deck), the concrete deck on the remainder of the bridge, the end bent piles and cap beam, the begin approach slab and the sea wall. The cost to replace the damaged elements plus the cost of the proposed repairs shown in our 60% plans (\$412K) will be close to the same as a full bridge replacement which was estimated to be in the \$1 mil range for just the bridge components. The potential service life for the proposed repairs would be in the 30-year range compared to a new bridge with a design life of 75 years.



South Gulf Cove Bridge Widenings, Charlotte County, FL – Mr. Corsa was the EOR for the bridge plans for repairs and the widening of four (4) bridges (FDOT #s 014053, 014054, 014055, 014056) in South Gulf Cove in Charlotte County. The superstructures for the 4 bridges have 5 – 24-foot spans and consist of adjacent, prestressed, concrete voided (Sonotube) slab beams with asphalt wearing surfaces and non-standard traffic railings. The superstructures are supported on pile bents that consist of cast in place concrete caps and prestressed concrete piles. The bridges span navigable waterways and were constructed circa 1976. These bridges are being widened to provide sidewalks on the bridges and includes the replacement of the non-standard bridge railings and approach guard rails. Johnson Engineering was the civil engineering sub-consultant.



Flamingo/Edgewater Widening, Charlotte County, FL – Mr. Corsa served as the Bridge EOR for the proposed widening of the Flamingo/Edgewater roadway corridor which traverses several canals, requiring the design of three (3) bridge crossings, including the replacement of the existing bridge over Pellam Waterway, a new twin bridge on a new roadway alignment over the Como Waterway and twin bridges where Flamingo currently crosses the Christopher Waterway. Johnson Engineering and WEC were the civil engineering consultants.



Golden Gate Parkway Design/Build Bridge Replacement, Collier County, Florida – This project involved the replacement of the subject existing bridge for Collier County with a newly designed cast-in-place concrete, continuous 3-span, flat slab superstructure supported on concrete caps and prestressed concrete pile foundations and a concrete filled fabri-form riprap system. Mr. Corsa was the bridge EOR with Johnson Engineering as the civil engineer of record. The project was conducted in a design/build format with Thomas Marine Construction.



Bermont Road Culverts and Biscayne Drive Bridges, Charlotte County, FL – WEC was the prime consultant with Arcos as the sub-consultant Bridge EOR on multiple contracts that included the design of maintenance repairs to four (4) culvert crossings and two (2) bridges within Charlotte County.



TAB IV

PROJECT CONTROL

A. Schedule

1. *What techniques are planned to assure that schedule will be met?*
2. *Who will be responsible to assure that schedule will be met?*

B. Cost

1. *What control techniques are planned?*
2. *Demonstrate ability to meet project cost control.*
3. *Who will be responsible for cost control?*

C. Recent, current, and projected workload

IV. PROJECT CONTROL

A. Schedule

What techniques are planned to assure that schedule will be met?

1. We propose a duration of 8 months for the design phase of this project.
2. To hit the ground running, we have already prepared a draft scope of services which is included in the **Tab V**.
3. We will be prepared to meet with the County Project Manager to discuss the scope and start negotiations within days of being notified that we have been selected by the County.
4. Although our Team is familiar with the subject bridges from previous projects, we have already visited the project sites to refresh our familiarity of this location and have started considering some design approaches which are discussed in **Tab V**.
5. Arcos is very familiar with the Ainger Creek and Midway Blvd. bridge sites because Mr. Corsa prepared the repair plans and adjacent pedestrian bridge plans, respectively for those sites – no learning curve.
6. We propose to eliminate the typical 60% plan review phase by providing a very detailed Bridge Repair Memo (BRM) to allow for clear County feedback and then proceed directly to 100% review plans. For minor repair projects there is not much additional detail that needs to be added from 60% to 100%. This expedited schedule would only require one comprehensive review from the County.
7. We will monitor the schedule on a weekly basis and take actions to accelerate the schedule if unforeseen issues cause delays.
8. To minimize the construction durations, we will consider Accelerated Bridge Construction techniques when appropriate.

Who will be responsible to assure that schedule will be met?

Rolando Corsa, PE, CBI, Arcos' Principal-in-Charge, and Project Manager will be responsible for adherence to the agreed upon schedule with support from the design team.

B. Cost

What control techniques are planned?

1. We will develop a comprehensive scope of services that will allow agreeing on engineering fees on a lump sum basis.
2. The design project schedule and budget will be monitored on a bi-weekly basis using Arcos' internal project management and accounting system.
3. Our Project Manager will prepare and submit monthly progress reports that summarize past achievements, upcoming work, budget statement, schedule statement, and information needed by the design team from the client.
4. To properly advise the County related to the probable cost of construction, Arcos will get feedback from local bridge contractors related to labor intensive work items during the design phase.

Demonstrate ability to meet project cost control.

Arcos, along with our sub-consultants WEC and JE, have a proven track record of expertise in managing project budgets through meticulous cost tracking, forecasting, and resource optimization. Our Team has successfully delivered County projects within financial constraints by implementing strategic cost-control measures, and identifying cost-saving opportunities without compromising quality or timelines.

Who will be responsible for cost control?

Rolando Corsa, PE, CBI, Arcos' Principal-in-Charge, and Project Manager will be responsible for cost control with support from the design team.

C. Recent, current, and projected workload

1. Charlotte County is currently one of Arcos' largest and most important clients and therefore a very high priority.
2. Arcos' total revenue derived from Charlotte County projects divided by our total revenue for the past 2 years is 40%. This statistic shows we have not been totally reliant on Charlotte County as a business and that we have capacity to do more work for the County.
3. We have recently completed all our design phase assignments and, aside from two (2) minor bridge assessment assignments, have no current work with the County. Therefore, we are genuinely excited by the prospect of being selected by the County for this project to allow us to continue working with the County staff.
4. We have not missed any project deadlines in the past and plan to continue this level of service for this contract.
5. If we commit to providing services for an agreed upon fee and schedule, we will deliver. We take these commitments very seriously. Prior to accepting any task assignment, we will perform a detailed review of our current project commitments at that time and provide a resource allocation summary in our proposal to the County.
6. We monitor our workload on a weekly basis using an internal two (2) week rolling schedule of project task commitments.
7. We have on-going work sharing relationships within our Team allowing us to gain access to additional resources when necessary to supplement our in-house staff.

TAB V

PRESENT PROPOSED DESIGN APPROACH FOR THIS PROJECT

A. Describe proposed design philosophy.

B. What problems do you anticipate and how do you propose to solve them?

V. DESIGN APPROACH

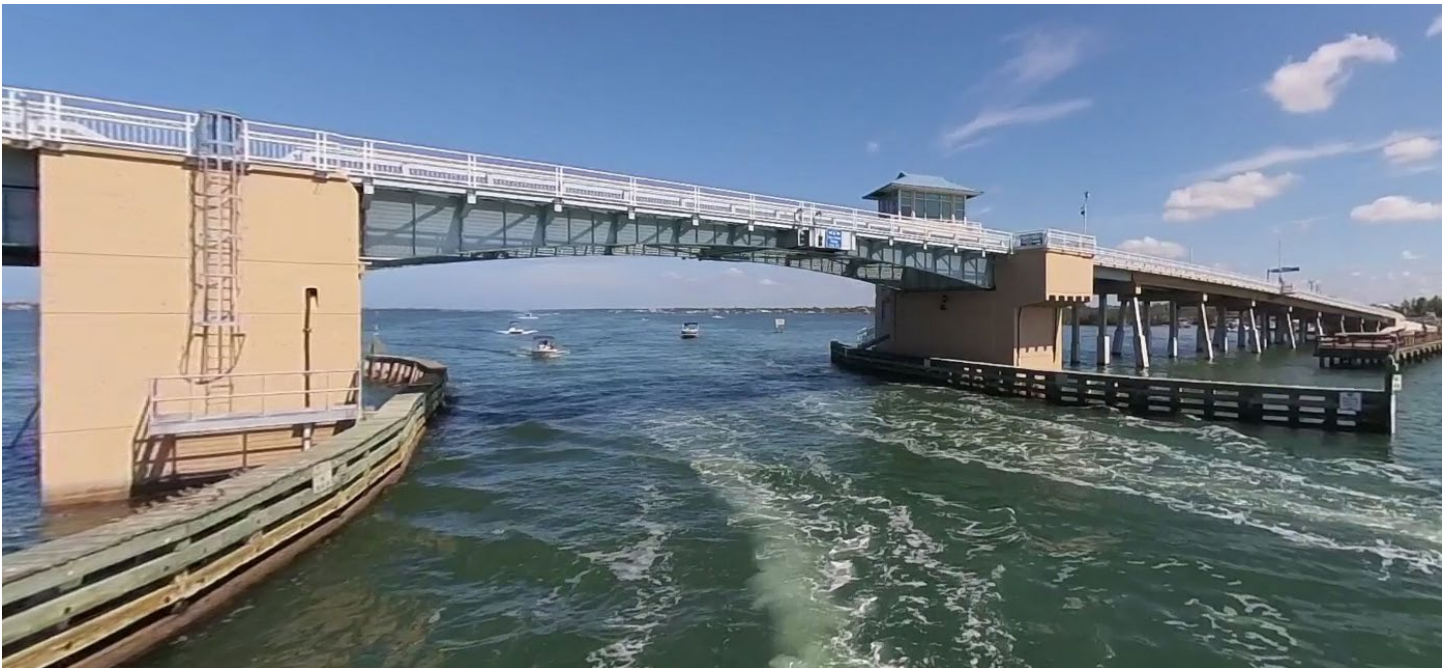
As was stated in the RFP, Charlotte County is seeking a qualified Team of engineering professionals with experience in bridge scour analysis to recommend and design countermeasures needed for the Tom Adams Beach Road Bridge over Lemon Bay (#010029), the Midway Boulevard Bridge over North Spring Lake (#014073), and the CR775 Bridge over Ainger Creek (#010062).



Midway Boulevard Bridge over North Spring Lake

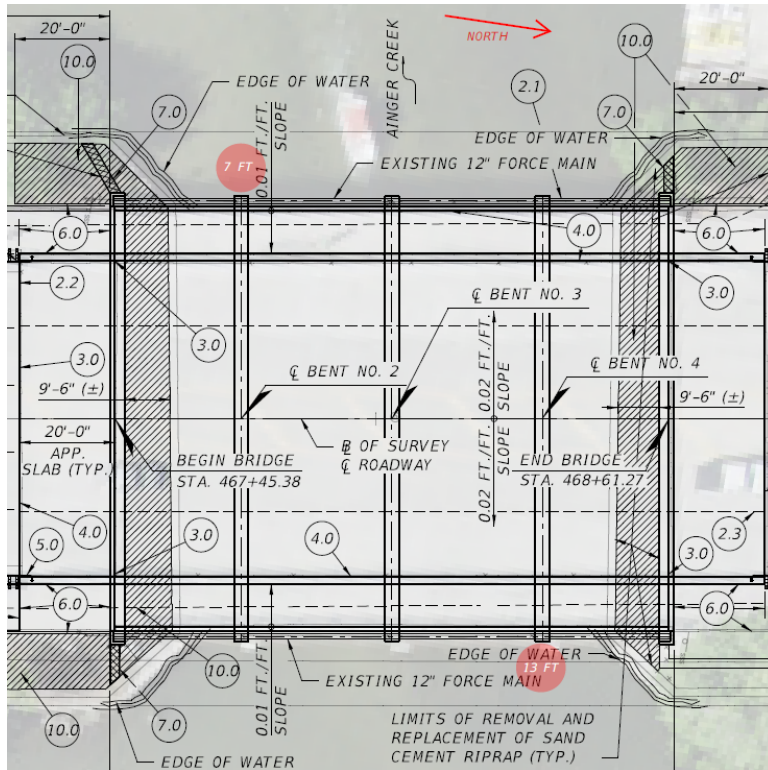


CR775 Bridge over Ainger Creek



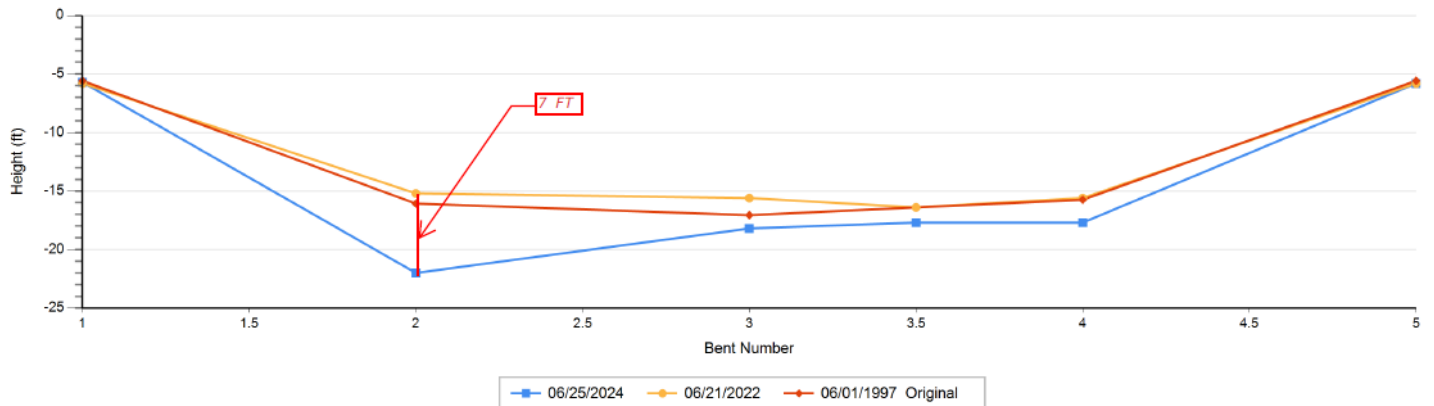
Tom Adams Beach Road Bridge over Lemon Bay

Bridge scour is simply defined as the erosion of soil or sediment around bridge foundations, primarily caused by flowing water. Key causes include high-velocity flows during floods or storms, which erode material near piers and abutments (local scour); channel constriction from bridge structures causing accelerating water (contraction scour); tidal or wave action in coastal areas, destabilizing sediment; and long-term streambed degradation, lowering the channel bed over time. These processes, outlined in FHWA HEC-18 and the FDOT Scour Manual, threaten bridge stability by undermining foundations.

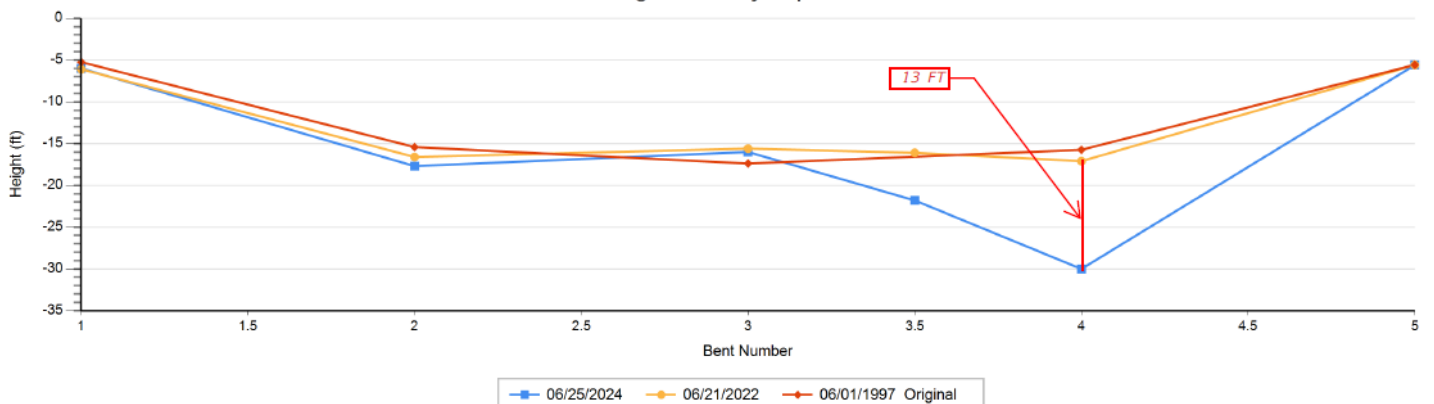


Our initial document review of all three bridges showed the Ainger Creek bridge as having the most scour. Inspection reports indicate the amount of scour that occurred between the June 2022 and June 2024 inspections to be substantial (13 FT). The two (2) major hurricanes that affected Charlotte County during that time frame are Hurricane Ian (09/22), and to a lesser extent Hurricane Idalia (08/23). The divers did not find any indication of recent scour due to consistent marine growth on the piles. Our guess would be Hurricane Ian (09/22) as being the cause of this scour event. The NBI rating for both the substructure and channel was lowered to a 4 (from a 7) and to a 5 (from an 8), respectively, due to major degradation/scour around the piles. The bridge was also placed on a 12-month inspection frequency due to the degradation and scour of the channel. A summary of the reported scour amounts measured and their location are shown in the images to the left and below. Note, based on the existing plans the original predicted scour was only 5.13 FT.

Left Profile by Inspection



Right Profile by Inspection



Below is a concise summary outlining the pros and cons of five revetment systems: Articulating Concrete Block (ACB), Prepackaged Sand-Cement Bags, Rubble (Bank and Shore Protection), Rubble (Ditch Lining), Gabions, and Contech's A-Jacks revetment system. Each system is evaluated for its effectiveness in scour countermeasure applications, such as those needed for the subject bridges.

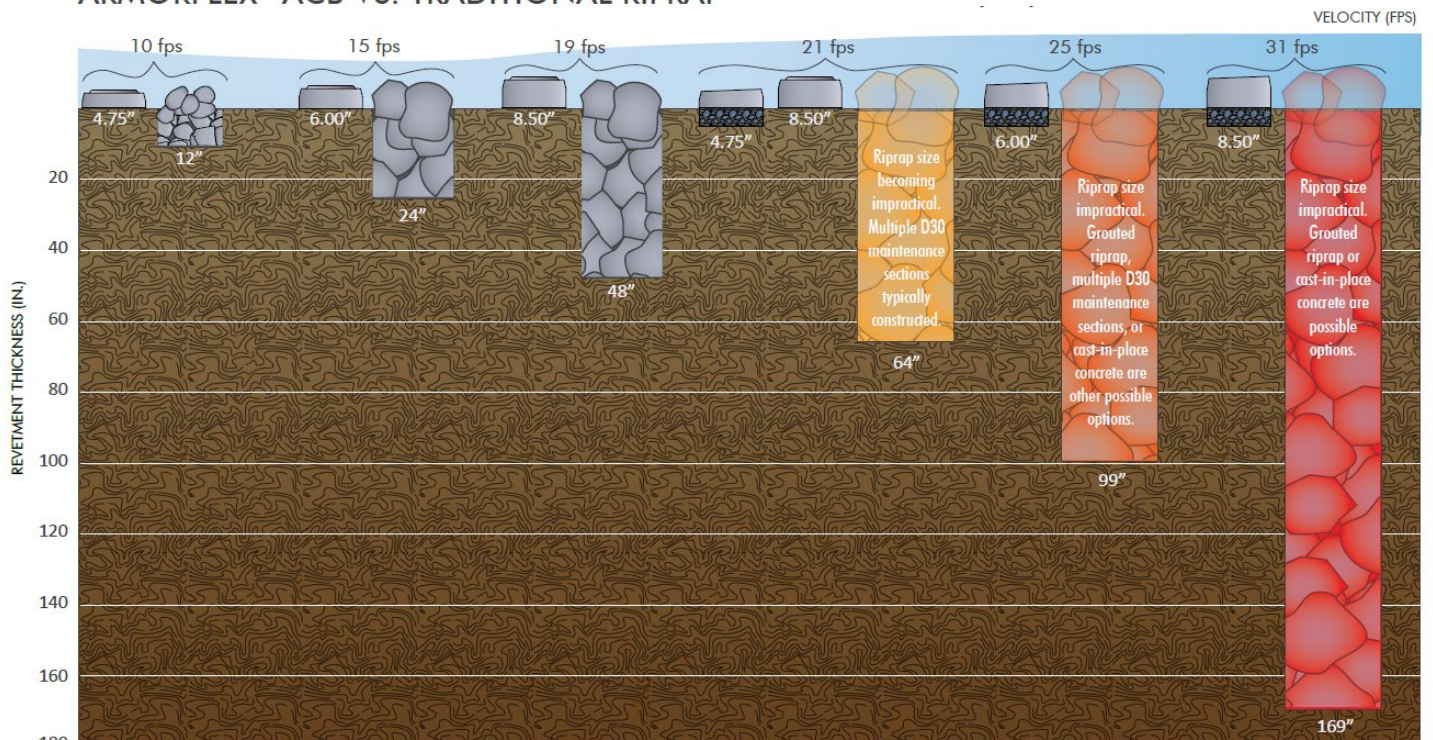
Articulating Concrete Block (ACB)

Pros: Durable, flexible to conform to uneven terrain, permits vegetation growth, effective in high-velocity flows, easy to install, and based on recent bids vs. rubble type riprap, ACBs are more cost-effective.

Cons: Requires precise installation, potential for block dislodgement if not maintained.



ARMORFLEX® ACB VS. TRADITIONAL RIPRAP*



* Assume 4H:1V sideslopes, 2% bedslope, 15ft. bed width, 3ft. flow depth, FS = 1.5

 ArmorFlex Non-Tapered ACB
  ArmorFlex Tapered ACB
  USACE D30 Riprap (Maynard)

Prepackaged Sand-Cement Bags

Pros: Cost-effective, simple to install in small areas, adaptable to site conditions, suitable for low-velocity flows.

Cons: Less durable in high flows, prone to degradation, limited aesthetic appeal, risk of bag rupture.

Rubble (Bank and Shore Protection)

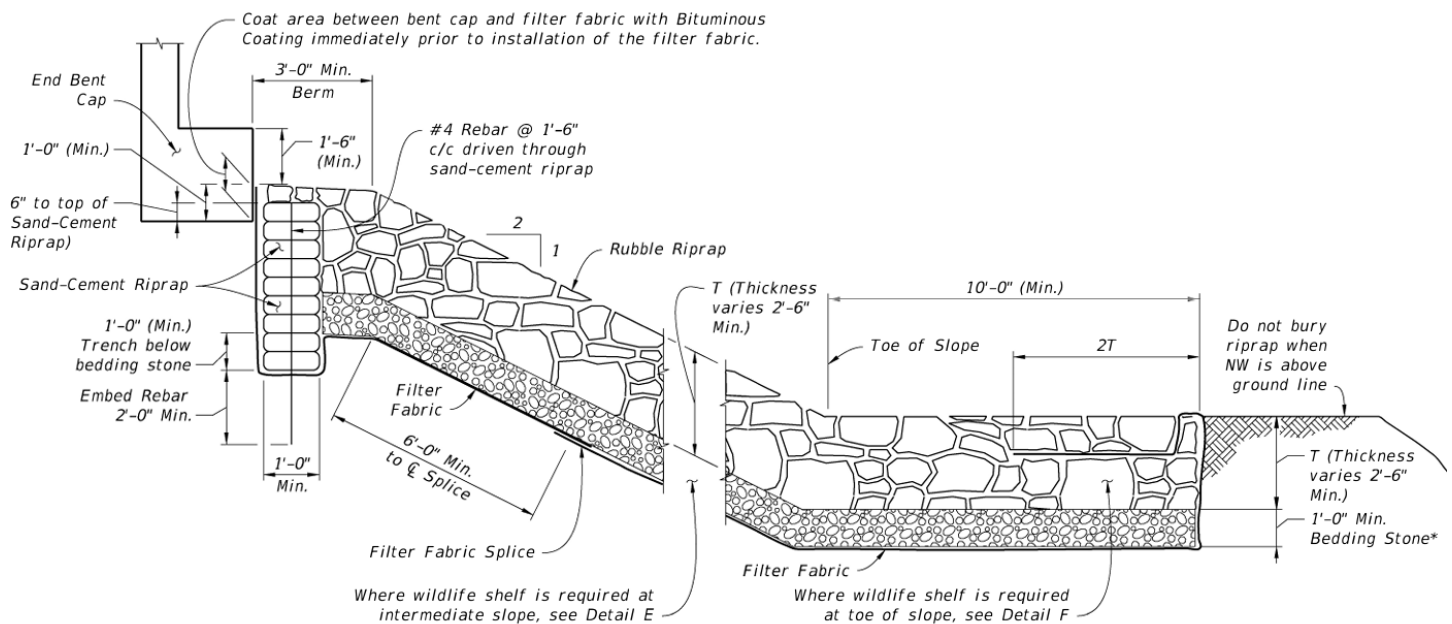
Pros: Cost-effective, widely available, natural appearance, robust for large-scale erosion control and wave action.

Cons: Inconsistent sizing may reduce effectiveness, requires maintenance, less suited for high-velocity flows.

Rubble (Ditch Lining)

Pros: Economical, permeable, suitable for low to moderate flows, easy to source and place.

Cons: Susceptible to displacement in high flows, limited flexibility, often needs geotextile underlay.



Gabions

Pros: Flexible, permeable, adapts to ground movement, durable in harsh conditions, supports vegetation.

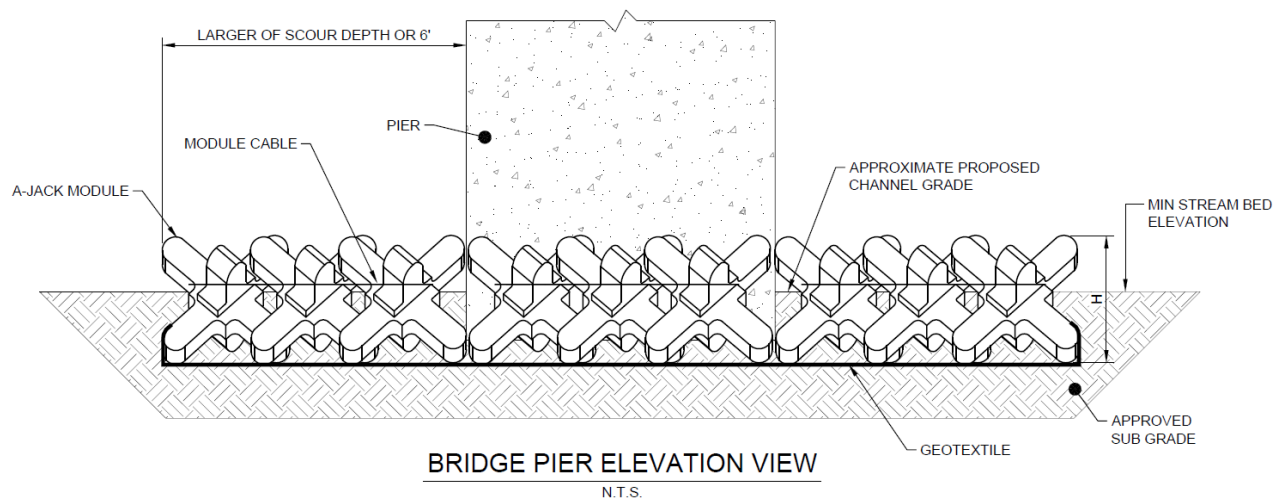
Cons: Higher cost than rubble, requires skilled installation, wire baskets may corrode, aesthetic concerns.



Contech A-Jacks

Pros: Interlocking design ensures high stability, permeable to support vegetation and marine habitats, uses less material than riprap, FHWA-approved for pier scour, versatile installation.

Cons: Higher upfront cost than rubble, requires precise installation with geotextile, potential dislodgement in extreme flows, less natural appearance.



Concrete Fabric-Form Revetment System

Pros: Conforms tightly to terrain via fabric forms filled with concrete, high durability, effective in high-flow environments, reduces scour with seamless coverage, supports vegetation in some designs.

Cons: High installation cost, requires specialized equipment and expertise, limited flexibility post-curing, less natural aesthetic unless vegetated.



A. Proposed Design Philosophy

Our design philosophy centers on ensuring the structural integrity and long-term stability of the Tom Adams Beach Road Bridge, Midway Boulevard Bridge, and CR775 Bridge by mitigating scour risks identified in FDOT Bridge Inspection Reports and through independent analyses (if required). This approach adheres to the FDOT Structures Manual (2025), the FDOT Bridge Scour Manual, and incorporates best practices for scour countermeasure design. Key principles include:

Site-Specific Scour Analysis: Conduct detailed scour assessments for each bridge, using historical FDOT inspection data and reports, existing field surveys, existing scour reports and existing hydraulic modeling to evaluate scour potential under design storm events (100-year flood) and long-term degradation.

Risk-Based Countermeasure Selection: Select countermeasures tailored to each bridge's scour vulnerability, hydraulic conditions, and environmental constraints. Options will prioritize proven methods like rubble riprap, articulated concrete block mats, or A-Jacks systems, while considering innovative solutions if site conditions warrant.

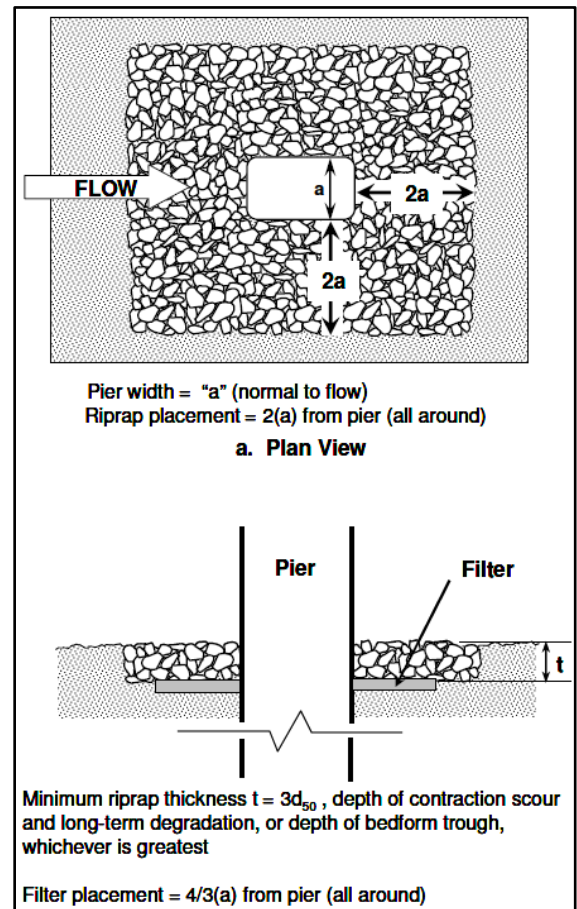
Sustainability and Constructability: Design countermeasures to minimize environmental impact, maintenance needs, and construction complexity, ensuring compliance with permitting requirements (e.g., USACE, FDEP). Use durable materials resistant to marine or brackish water corrosion, especially for Lemon Bay and Ainger Creek.

Integration with Existing Structures: Ensure countermeasures are compatible with existing bridge foundations (e.g., pile or spill through abutments) and do not adversely affect structural capacity.

Comprehensive Project Delivery: Provide end-to-end services, including scour analysis, design of construction documents, permitting, bidding support (pre-bid meetings, addenda, bid review), and pre-construction meeting attendance, to ensure seamless project execution.

The design process will follow these steps:

1. **Data Collection:** Review FDOT Bridge Inspection Reports, as-built plans, geotechnical data, dive reports, and bridge specific scour studies. Conduct site visits and drop-line surveys.
2. **Scour Analysis:** Perform scour assessment of all available bridge specific scour reports, inspections, and existing bridge plans.
3. **Countermeasure Design:** Develop detailed designs and specifications, incorporating FDOT standards and site-specific requirements.
4. **Permitting:** Secure environmental permits, coordinating with agencies like FDEP and USACE.
5. **Construction Support:** Prepare bidding documents, respond to contractor queries, and participate in pre-construction activities.



B. Anticipated Problems and Proposed Solutions

The following potential challenges and mitigation strategies are identified based on the project scope and typical scour countermeasure projects in Florida's coastal and inland waterways:

Problem: Incomplete or Outdated Historical Data

Issue: FDOT Bridge Inspection Reports may lack recent bathymetric data or detailed scour analyses, potentially underestimating current scour risks.

Solution: Conduct comprehensive field investigations, including drop line surveys (bathymetric surveys if required) and geotechnical borings (if required), to supplement historical data.

Problem: Complex Hydraulic Conditions

Issue: Lemon Bay and Ainger Creek are tidal waterways, and North Spring Lake may have variable flow regimes, complicating scour predictions and countermeasure design.

Solution: Employ advanced hydraulic modeling tools to simulate tidal and flood conditions. Design countermeasures (e.g., riprap with toe protection) to accommodate dynamic flow patterns, following FDOT and FHWA HEC-23 guidelines.

Problem: Environmental and Permitting Constraints

Issue: Lemon Bay and Ainger Creek are sensitive aquatic environments, and permitting agencies (USACE, FDEP) may impose strict conditions on construction activities.

Solution: Engage early with permitting agencies to identify constraints (e.g., turbidity control, protected species). Design countermeasures to minimize footprint and use eco-friendly materials (e.g., natural stone riprap). Prepare robust permit applications with detailed environmental impact assessments.

Problem: Constructability and Access Limitations

Issue: Limited access to bridge substructures, especially in tidal waters or urban settings, may hinder countermeasure installation.

Solution: Develop construction plans that prioritize barge-based or low-impact equipment. Specify modular countermeasures (e.g., articulated concrete blocks) to simplify installation in confined spaces. Coordinate with contractors during bidding to address access concerns.

Problem: Cost and Budget Constraints

Issue: Balancing robust scour protection with project budget limitations may be challenging, especially if extensive countermeasures are needed.

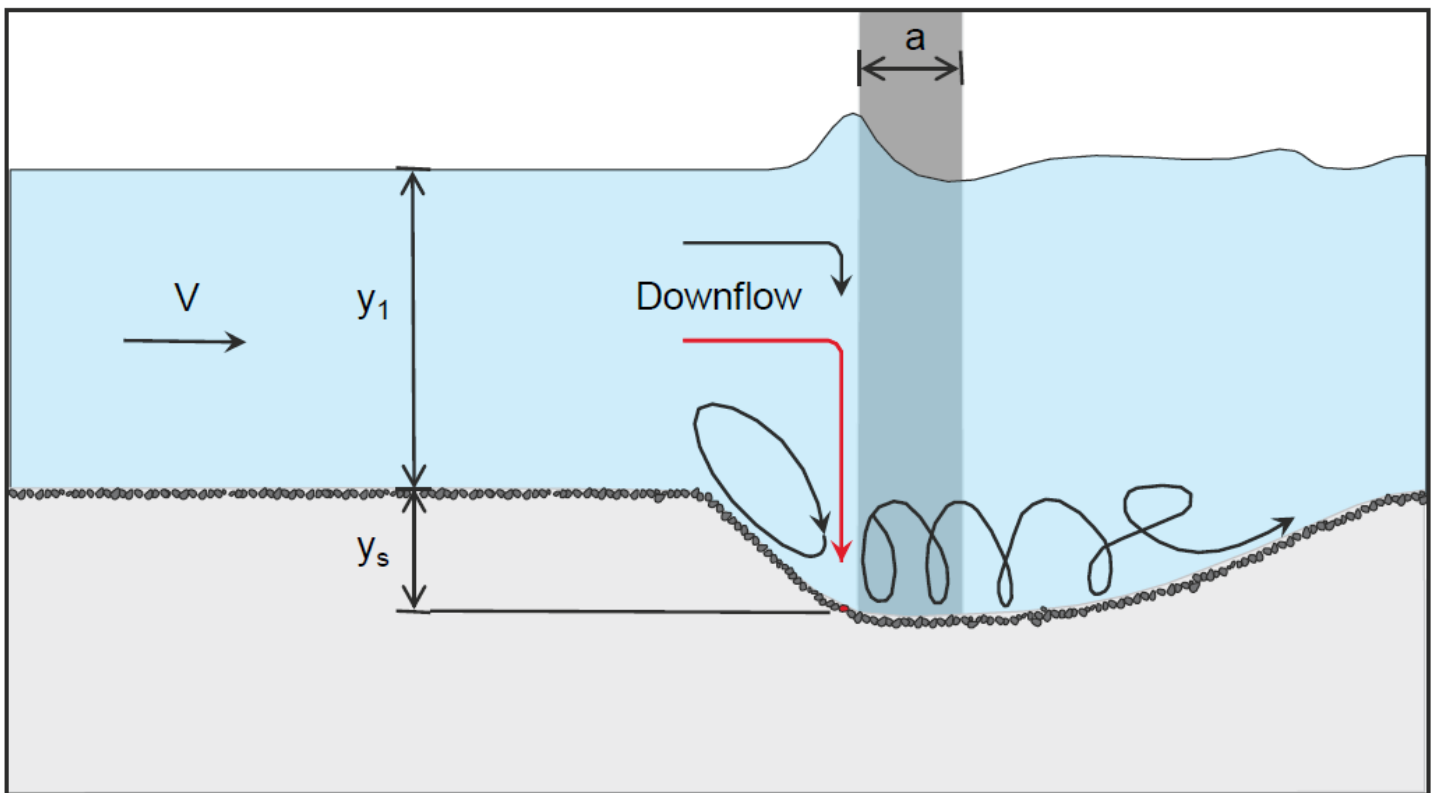
Solution: Optimize designs by prioritizing critical scour zones and using cost-effective materials (e.g., locally sourced riprap). Provide value engineering options in the design phase, such as phased implementation if feasible, while ensuring compliance with FDOT standards.

Problem: Coordination During Bidding and Construction

Issue: Miscommunication during bidding or pre-construction phases could lead to delays or cost overruns.

Solution: Prepare clear, detailed bidding documents with comprehensive specifications and drawings. Actively participate in pre-bid meetings to clarify requirements and issue addenda as needed. Attend the pre-construction meeting to align all stakeholders on project goals.

To conclude, our design approach leverages the FDOT Structures Manual and industry best practices to deliver effective, sustainable scour countermeasures for the three bridges. By addressing site-specific conditions, anticipating challenges, and providing proactive solutions, the project will achieve structural safety, regulatory compliance, and efficient execution. The consultant team is committed to close collaboration with Charlotte County, and permitting agencies to ensure project success.



Typical Pier Scour

TAB VI

PRESENT EXAMPLES OF RECENTLY ACCOMPLISHED SIMILAR PROJECTS

A. Describe the projects to demonstrate.

- 1. Schedule control.*
- 2. Cost control.*
- 3. Construction problems and means taken to solve them.*
- 4. Any additional construction costs caused by design deficiencies, not program changes.*

VI. RECENTLY ACCOMPLISHED SIMILAR PROJECTS

The following are relevant project examples showing the project experience for Arcos, WEC, JE and/or key staff. We have provided the names and contact information in some of the examples that serve as references. None of these projects included any schedule delays and/or change orders that were a result of design errors or omissions. In addition, all these projects were delivered on time and within budget. Any minor construction issues that came up were rectified in a timely fashion.

Washington Loop Bridge over Prairie Creek, Charlotte County, FL

– This project involved the replacement of the nonstandard bridge railings and the installation of approach guard railing. The existing bridge railing was damaged because of a vehicle crash that prompted the County to Mr. Corsa to prepare design plans for the installation of a new thrie-beam bridge railing system. The County also hired Mr. Corsa to conduct the emergency flood bridge inspections after Hurricane Irma (2017), and designed the ACB revetment system (2018) for the scour damage that occurred. The articulating concrete block scour countermeasure performed successfully after Hurricane's Ian (09/22), and Idalia (08/23). The County's Project Manager was Kelly Slaughter: Kelly.Slaughter@charlottecountyfl.gov, (941) 575-3657.



Relevant WEC/Apex Bridge Experience:

Project Name	Scour Countermeasures	Pile Jacketing	Misc. Bridge Repairs
Bridge 044012 - SE Airport Road over Joshua Creek	X	X	X
Bridge 044010 - CR 760A over Hawthorne Creek	X		X
Bridge 040025 - CR 761 over Peace River Overflow	X	X	X
Bridge 040005 - Brownville Street over Peace River	X		X
Bridge 040010 - CR 760 over Peace River River	X		
Bridge 040026 - Brownville Street over Peace River Overflow	X		X
Reynolds Bridge Replacement	X		
Bridge 040022 - CR 769 over Horse Creek	X	X	X

The following is the reference for the next six (6) project descriptions:

Mandy Hines, County Administrator
DeSoto County BOCC
201 East Oak St. Suite 201
Arcadia, FL 34266
863-993-4800
m.hines@desotobocc.com

CR 769 Bridge over Horse Creek Bridge Scour Countermeasures, Desoto County, FL

– WEC was contracted to design, permit and perform construction, engineering and inspection services for the scour countermeasures and other improvements to this major bridge on the only Florida Department of Emergency Management recognized evacuation route maintained by DeSoto County. The project is funded through a \$3,273,575 CDBG-MIT grant. This project scope includes the removal of the existing concrete bag rip rap, stabilization of the stream bed surrounding the existing bridge piles and abutments by utilizing articulating concrete block mat or rip rap alternatives, repairing spalling, and adding pile



jackets. The project also includes minor road and guardrail repairs and bridge deck repairs. WEC obtained a verification of exemption the Southwest Florida Water Management District (SWFWMD) because the design kept the stream elevations the same and did not propose any additional impervious area. The SWFWMD permit was obtained 31 calendar days. This project was also required to obtain a permit through the Army Corps of Engineers. WEC was able to obtain a Nationwide 14 permit in 47 calendar days. The project also requires a sovereign submerged lands lease. WEC is assisting with the finalizing of the lease approval with SWFWMD and FDEP.

Start Date: January 2024

Completion Date: Design Complete in April 2025. (Construction anticipated to start in late 2025)

Total Project Cost: \$3,273,575 (anticipated)

SE Airport Road over Joshua Creek, Desoto County, FL

– WEC was contracted to design, permit and perform construction, engineering, and inspection services for a portion of SE Airport Road over Joshua Creek. This project scope includes the removal of the existing concrete bag rip rap, stabilization of the stream bed surrounding the existing bridge piles and abutments by utilizing articulating concrete block mat, repairing spalling, and adding pile jackets. WEC provided alternatives throughout the design for the use of either riprap or articulating concrete block mat for the stabilization of the stream. These alternatives were both



within the estimated budget determined by the FDOT SCOP agreement. Due to the potential impacts to the existing flow patterns, coordination with FEMA was required to determine if any additional permits were required. It was determined that since the design kept the proposed elevations the same as the existing, there were no additional permits required. WEC obtained a verification of exemption the Southwest Florida Water Management District (SWFWMD) because the design kept the stream elevations the same and did not propose any additional impervious area. A general permit was also obtained through the Florida Department of Environmental Protection (FDEP).

Start Date: January 2022

Completion Date: Construction Complete November 2023

Total Project Cost: \$1,157,000

CR 760A over Hawthorne Creek, DeSoto County, FL – WEC was contracted to design and permitting for a portion of CR 760A over Hawthorne Creek. This project scope includes the removal of the existing sand cement bag rip rap and stabilization of the stream bed surrounding the existing bridge piles and abutments by utilizing articulating concrete block mat. Staying within budget was WEC's main goal as this project was federally funded by the Florida Department of Transportation under a SCOP agreement. WEC obtained a verification of exemption SWFWMD because the design kept the stream elevations the same and did not propose any additional impervious area. A general permit was also obtained through FDEP.



Start Date: January 2022

Completion Date: Construction Complete September 2023

Total Project Cost: \$580,500

CR 761 over Peace River Overflow, DeSoto County, FL – WEC was contracted to design and permitting services for a portion of CR 761 over Peace River Overflow. This project scope included the removal of the existing slope protection, stabilization of the stream bed surrounding the existing bridge piles and abutments by utilizing articulating concrete block mat, repairing spalling, and adding pile jackets. WEC provided alternatives throughout the design for the use of either riprap or articulating concrete block mat for the stabilization of the stream. Add alternatives for pavement markings were also included if the budget allowed for them. These alternatives were presented to keep the project within the estimated budget determined by the FDOT SCOP agreement. WEC obtained a verification of exemption the Southwest Florida Water Management District (SWFMD) because the design kept the stream elevations the same and did not propose any additional impervious area as well as a permit through ACOE.



Start Date: October 2018

Completion Date: August 2020

Total Project Cost: \$1,192,201

Brownville Street, and CR 760 over Peace River, and Brownville Street over Peace River Overflow, DeSoto County, FL – WEC was contracted to design, permit, and provide construction, engineering, and inspection services for three bridges within the County. Based on the FDOT bridge inspection reports, these three bridges required scour protection measures. The projects were funded under the Small County Outreach Program (SCOP). All three bridges were permitted through SWFWMD through an ERP and through ACOE. Each bridge had a slightly different approach to the scour countermeasures based on the individual situations. The Brownville Street bridge over Peace River required the removal and replacement of the existing riprap. The piles needed to be reinforced to prevent further damage. The design included the installation of crutch beams and reinforced concrete pile caps. The CR760 bridge required the addition of riprap around the existing piles to prevent further scouring. The existing channel grade remained the same. This Brownville Street bridge over Peace River Overflow serves as the relief bridge for the Peace River. To enhance the scour protection measures, riprap was added around each of the pilings keeping the same elevation as the existing stream bed. A concrete curb extension and replacement of the guardrail was done on either side for the bridge.



Start Date: January 2012

Completion Date: September 2013

Total Project Cost: \$1,431,117

Reynolds Bridge Replacement, DeSoto County, FL – WEC was contracted to design and permit the Reynolds Street Bridge scour countermeasures. This bridge received funding through the FDOT SCOP Agreement to provide scour countermeasures. The design included the complete removal and replacement of the existing bridge, removal of the existing wood headwall, replacement of the guardrail, installation of riprap, 2-foot dry shelves, and a retaining wall. This project was permitted through SWFWM and ACOE.

Start Date: October 2018

Completion Date: November 2021

Total Project Cost: \$1,489,478

TAB VII

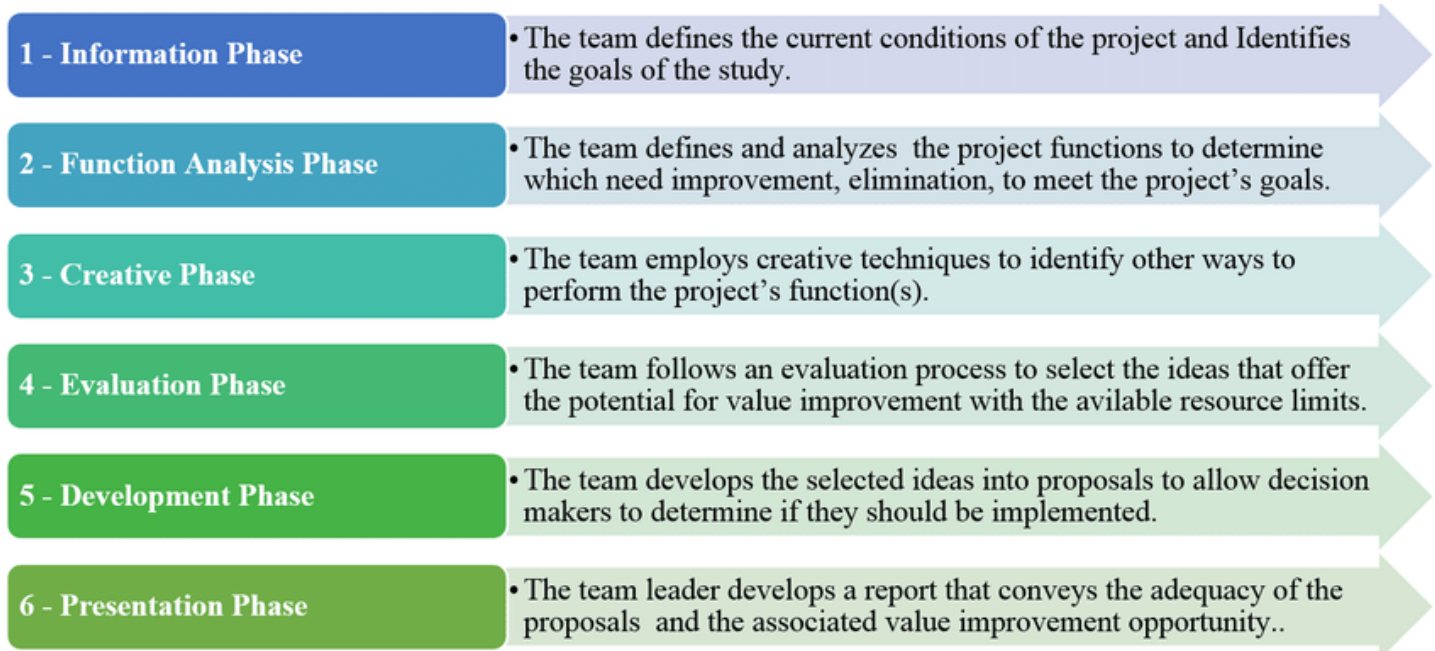
DESCRIBE YOUR EXPERIENCE AND CAPABILITIES IN THE FOLLOWING AREAS.

- A. Value Engineering.**
- B. Life Cycle Cost Analysis.**
- C. Environmental Assessment.**
- D. Specialized Experience.**

VII. EXPERIENCE AND CAPABILITIES

A. Value Engineering

Mr. Corsa's technical expertise saved Collier County hundreds of thousands of dollars on a 2018 assignment involving the Immokalee Road Bridge over a Drainage Canal (#030138) east of Immokalee. The FDOT sent a letter advising the County of significant deficiencies related to advanced deterioration of the timber piles. The consultant that had been monitoring the piles on this bridge (and all the other timber pile supported bridges in the County for the past few years), was requested to re-inspect the piles based on the FDOT letter. The consultant re-inspected the piles and concluded that the County should perform repairs which included installing crutch bents at all the bents. These crutch bents would have cost approximately \$300,000 for this bridge which was scheduled for replacement in 2 years. The County hired Mr. Corsa to review the situation and provide a value engineering evaluation. We agreed that piles appeared to be a concern based on a visual inspection which was the level of inspection performed by the FDOT and the other consultant. We recommended performing in-depth testing of the piles using a drill resistance device that would provide quantitative test results related to the condition of the piles full depth. The results of the testing showed that the outer 2" of the 12" diameter piles were compromised but the interior 8" of the piles were solid material. We performed a structural analysis of the pile based on this information and concluded that no repairs were required given the short time frame planned for the full replacement of the bridge.

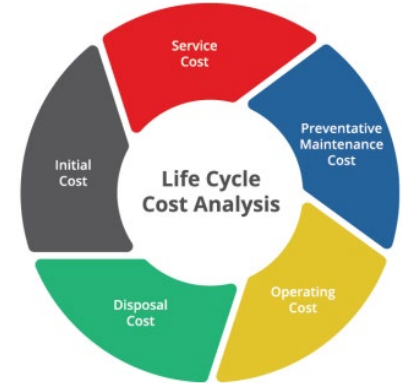


The purpose of Value Engineering for bridge scour countermeasures optimizes design and construction to enhance safety and durability while minimizing costs. By evaluating materials, methods, and technologies, our Team will identify cost-effective revetment system solutions that mitigate scour risks without compromising

structural integrity. Our systematic value engineering approach ensures efficient resource use, extends bridge lifespan, and maintains compliance with environmental and regulatory standards.

B. Life Cycle Cost Analysis

Arcos proposes conducting a Life Cycle Cost Analysis (LCCA) for the bridge repair project, following NCHRP Report 483 guidelines. LCCA estimates total ownership costs, including administrative, right-of-way, engineering, construction, maintenance, and salvage value. By comparing alternatives with varying initial and maintenance costs, LCCA identifies the option maximizing net savings. Performing LCCA early in design allows refinements to minimize life cycle costs while meeting performance requirements.



C. Environmental Assessment

The Florida Administrative Code (FAC) Section 62-330.051 *Exempt Activities* allows an exemption from permitting for bridge maintenance. Here is a specific excerpt from the FAC:

“(e) Repair, stabilization, paving, or repaving of existing roads, and the repair or replacement of vehicular bridges that are part of the road, where:

1. They were in existence on or before January 1, 2002, and have:
 - a. Been publicly-used and under county or municipal ownership and maintenance thereafter, including when they have been presumed to be dedicated in accordance with section 95.361, F.S.;
 - b. Subsequently become county or municipally-owned and maintained; or
 - c. Subsequently become perpetually maintained by the county or municipality through such means as being accepted by the county or municipality as part of a Municipal Service Taxing Unit or Municipal Service Benefit Unit;”

Our Team’s subconsultants, Weiler Engineering and Johnson Engineering, will provide permitting and environmental assessment services including verification of exemption from the Southwest Florida Water Management District (SWFMD) noting that waterway bed elevations will be restored to their original design elevations, proposing no additional impervious areas. Our team regularly obtains local, state, and federal permits, modifications, renewals, and exemptions for projects from USACE, the Florida Department of Environmental Protection (FDEP) and the Water Management Districts (e.g. Nationwide 14 permit, sovereign submerged lands lease, etc.). Additionally, our Team’s ecologist, Laura Herrero (Johnson Engineering), is an authorized gopher tortoise agent, having surveyed, excavated, and relocated multiple acres of tortoise habitat throughout Florida.

D. Specialized Experience

Mr. Corsa routinely offers technical seminars at industry conferences to provide training for other engineers about structural engineering. One of the courses that is very relevant to this project includes the course titled *Bridge Maintenance Management for Florida Municipalities*. This seminar provides practical management recommendations for the repair and replacement of the bridges owned and maintained by local municipalities in Florida. It also provides recommendations for alternative approaches to the design and construction of typical preventative maintenance repairs, including scour countermeasures. Mr. Corsa presented this course at the statewide APWA Annual Conference in 2018.

Another relevant course that we have provided at industry conferences and for local municipalities is titled *Bridge Structure Flood Emergency Training*. This seminar provides training for public works personnel that will be

assigned to perform emergency inspections during flood events for bridges and large culverts. The employees of municipal public works departments are typically the first responders in the event of a flood to determine the safety of the bridges that are owned and maintained by the municipality. They need to be trained to understand how to recognize a hazardous condition and be able to recommend/implement an immediate bridge closure, if conditions warrant it, to protect the safety of the travelling public. This seminar provides a recommended approach to preparing an emergency action plan for the municipality that includes identifying the risk associated with the various bridge types in the municipality's inventory and preparing a priority list for the performance of the inspections. It provides a basic understanding of the components of typical bridges and a working knowledge of the common failure modes caused by scour. This seminar also provides a sample inspection form to be used during an emergency food inspection and a checklist of specific inspection activities that should be performed and documented.

Another relevant course that we have provided at industry conferences and for local municipalities is titled *Accelerated Bridge Construction Using Prefabricated Components*. This training course provides a practical overview of the proprietary and non-proprietary prefabricated bridge components that are available for use on bridge replacement and rehabilitation projects. These components are manufactured using materials including concrete, steel, timber, and fiber reinforced polymers. There is a growing trend in the transportation industry to reduce the disruption to the traveling public on highway projects by minimizing the duration of construction. These high-quality products provide cost effective alternatives. Specialty structural engineers perform the final design of these products based on design criteria provided by the structural engineer of record. Typical design methods and limitations for each product are also discussed. In addition, case study projects are presented to illustrate some typical installations for the prefabricated components.

TAB VIII

VOLUME OF WORK

Total of payments received from County within the past 24 months.

VIII. VOLUME OF WORK

As reflected on the Proposal Submittal Signature Form, Arcos has received **\$264,760** from County projects for 3 projects over the past 24 months. We have recently completed the design phase of all our assignments and have only 2 minor bridge assessment projects with the County. Therefore, we are available and genuinely excited by the prospect of being selected by the County for this project to allow us to continue working with the County staff.

TAB IX

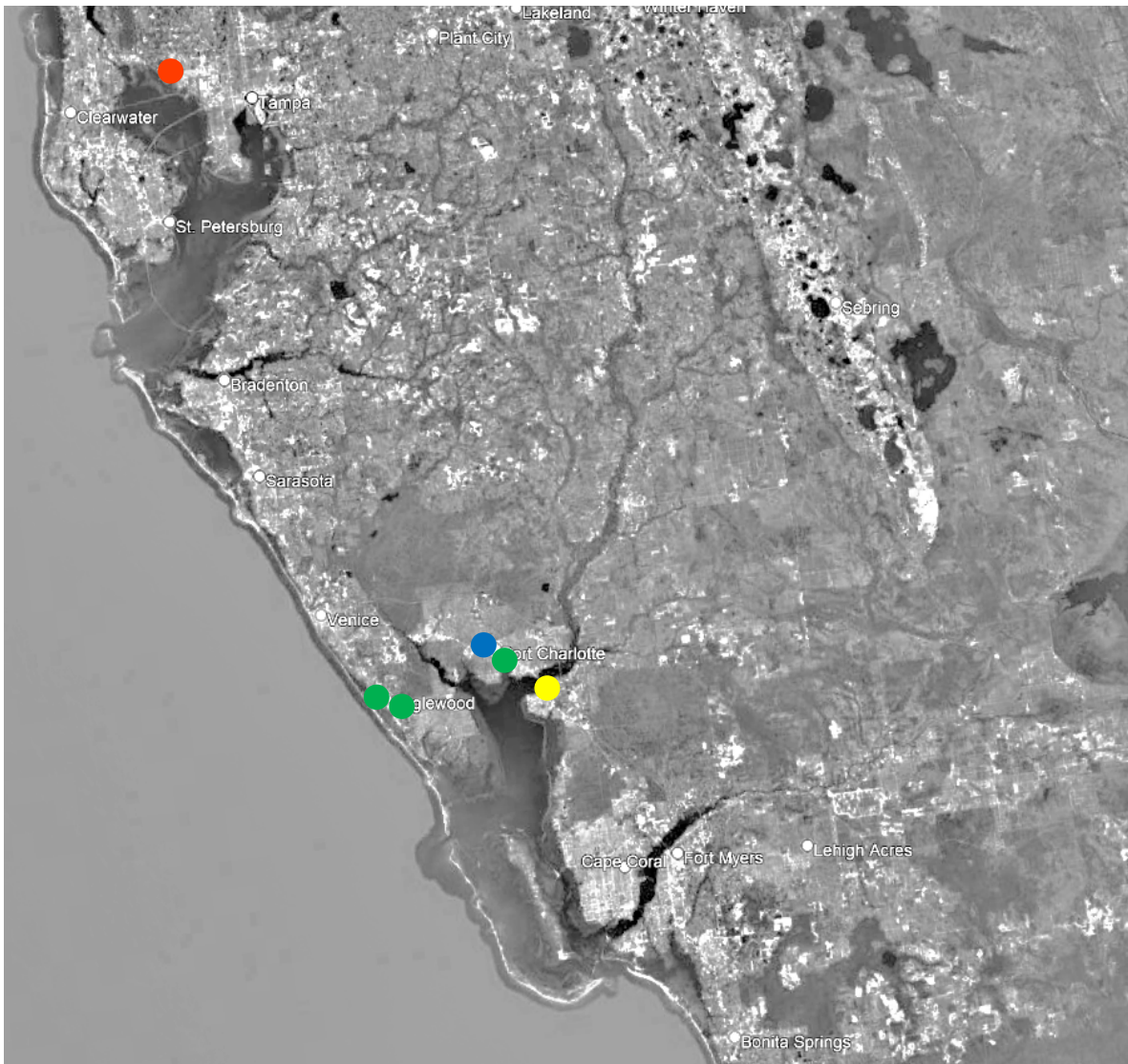
LOCATION

Describe the Prime and Sub-Consultants responsiveness as it relates to the firm's location to the project.

IX. LOCATION

Arcos Bridge, Inc. is headquartered in Tampa, FL. Our subconsultants Weiler Engineering Corporation and Johnson Engineering, LLC have offices located in Punta Gorda, FL and Port Charlotte, FL, respectively.

We are aware that the County project managers are juggling numerous assignments and need to satisfy their internal customers in other departments within the County. Our Team's location and experience on past projects with all the County departments will facilitate the efficient production and delivery of project reports, plans, specifications, and construction inspection site visit reports. Our primary goals related to this project are to be very responsive to the County's requests for assistance and to provide expert advice with the attitude that we are part owners of these County bridges. We will work with County project managers to clearly define the scope of services in our up-front proposal and deliver those services on budget and on time, every time.



Legend:

- = Arcos
- = WEC
- = JE
- = Bridges

TAB X

LITIGATION

*Have you been named as a defendant or co-defendant in a lawsuit in the last five years?
If so, describe circumstances and outcome, including Case Number, Case Name and Court.*

X. LITIGATION

Arcos Bridge, Inc. has not been named as a defendant or co-defendant in a lawsuit in the last five years.

TAB XI

MINORITY BUSINESS

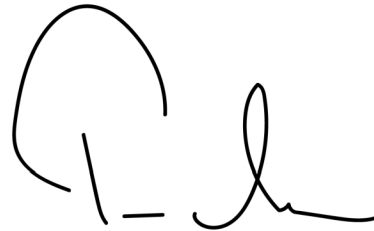
Certified MBE, Sub-Consultants Certified MBE, and/or Non-Certified MBE.

State of Florida

Minority Business Certification

Arcos Bridge, Inc.

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:
12/20/2023 to 12/20/2025



J. Todd Inman
Florida Department of Management Services

TAB XII

FORMS AND RESUMES

PART IV - SUBMITTAL FORMS
PROPOSAL SUBMITTAL SIGNATURE FORM

1.	Project Team Name and Title	Years experience	City of office individual will work out of for this project	City individual's office is normally located	City of individual's residence
	Rolando Corsa, PE, CBI / PIC / Project Manager	25	Tampa	Tampa	Tampa
	Michael J. Giardullo, PE / Deputy Project Manager	20	Punta Gorda	Punta Gorda	Punta Gorda
	Laura Herrero / Water Resources / Ecologist	31	Ft. Myers	Ft. Myers	Ft. Myers
	Robin Palmer, PE / Environmental Engineer	11	Punta Gorda	Punta Gorda	Punta Gorda
	Ashlie Maberino, PE / Permitting	5	Punta Gorda	Punta Gorda	North Port
	Brian Corso / QA/QC	14	Punta Gorda	Punta Gorda	Punta Gorda
2.	Magnitude of Company Operations				
	A) Total professional services fees received within last 24 months:			\$ 645,264	
	B) Number of similar projects started within last 24 months:			4	
	C) Largest single project to date:			\$ 110,960	
3.	Magnitude of Charlotte County Projects				
	A) Number of current or scheduled County Projects			4	
	B) Payments received from the County over the past 24 months (based upon executed contracts with the County).			\$ 264,760	
4.	Sub-Consultant(s) (if applicable)	Location	% of Work to be Provided	Services to be Provided	
	Apex Companies (WEC/JE)	Punta Gorda / P. Charlotte	30%	Permitting / QA/QC	
5.	Disclosure of interest or involvement: List below all private sector clients with whom you have an active pending contract and who have an interest within the areas affected by this project. Also, include any properties or interests held by your firm, or officers of your firm, within the areas affected by this project.				
	Firm	Address			
	Phone #	Contact Name			
	Start Date	Ending Date			
	Project Name/Description				

NAME OF FIRM Arcos Bridge, Inc.

(This form must be completed and returned)

6. Minority Business: The County will consider the firm's status as an MBE or a certified MBE, and also the status of any sub-contractors or sub-consultants proposed to be utilized by the firm, within the evaluation process.	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Comments or Additional Information:	

The undersigned attests to his/her authority to submit this proposal and to bind the firm herein named to perform as per contract, if the firm is awarded the Contract by the County. The undersigned further certifies that he/she has read the Request for Proposal, Terms and Conditions, Insurance Requirements and any other documentation relating to this request and this proposal is submitted with full knowledge and understanding of the requirements and time constraints noted herein.

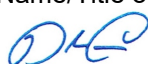
By signing this form, the proposer hereby declares that this proposal is made without collusion with any other person or entity submitting a proposal pursuant to this RFP.

In accordance with section 287.135, Florida Statutes, the undersigned certifies that the company is not on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and does not have business operations in Cuba or Syria (if applicable) or the Scrutinized Companies that Boycott Israel List, or is not participating in a boycott of Israel.

As Addenda are considered binding as if contained in the original specifications, it is critical that the Consultant acknowledge receipt of same. The submittal may be considered void if receipt of an addendum is not acknowledged.

Addendum No. <u>1</u> Dated <u>5/14/25</u>	Addendum No. <u> </u> Dated <u> </u>	Addendum No. <u> </u> Dated <u> </u>
Addendum No. <u>2</u> Dated <u>5/19/25</u>	Addendum No. <u> </u> Dated <u> </u>	Addendum No. <u> </u> Dated <u> </u>

Type of Organization (please check one):	<input type="checkbox"/> INDIVIDUAL CORPORATION <input checked="" type="checkbox"/> PARTNERSHIP <input type="checkbox"/> JOINT VENTURE	
<u>Arcos Bridge, Inc.</u>	<u>(813) 767-0538</u>	
Firm Name	Telephone	
<u> </u>	<u>93-3463673</u>	
Fictitious or d/b/a Name	Federal Employer Identification Number (FEIN)	
<u>8112 Champions Forest Way</u>		
Home Office Address		
<u>Tampa, FL 33635</u>	<u>1.67</u>	
City, State, Zip	Number of Years in Business	

<u>Address: Office Servicing Charlotte County, other than above</u>	
<u>Rolando Corsa, PE, CBI / Principal</u>	<u>(813) 767-0538</u>
Name/Title of your Charlotte County Rep.	Telephone
<u>Rolando Corsa, PE, CBI / Principal</u>	
Name/Title of Individual Binding Firm (Please Print)	
	<u>05/07/2025</u>
Signature of Individual Binding Firm	Date
<u>rcorsa@arcosbridge.com</u>	
Email Address	

(This form must be completed & returned)

DRUG FREE WORKPLACE FORM

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that Arcos Bridge, Inc.
_____ does: (name of business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5. Impose a sanction on or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.



Proposer's Signature

05/07/2025

Date

(This form must be completed & returned)

**HUMAN TRAFFICKING AFFIDAVIT
for Nongovernmental Entities Pursuant To FS. §787.06**

Charlotte County Contract #20250383

The undersigned on behalf of the entity listed below, (the "Nongovernmental Entity"), hereby attests under penalty of perjury as follows:

1. I am over the age of 18 and I have personal knowledge of the matters set forth except as otherwise set forth herein.
2. I am an officer or representative of the Nongovernmental Entity and authorized to provide this affidavit on the Company's behalf.
3. Nongovernmental Entity does not use coercion for labor or services as defined in Section 787.06, Florida Statutes.
4. This declaration is made pursuant to Section 92.525, Florida Statutes. I understand that making a false statement in this declaration may subject me to criminal penalties.

Under penalties of perjury, I declare that I have read the foregoing Human Trafficking Affidavit and that the facts stated in it are true.

Further Affiant sayeth naught.



Signature

Rolando Corsa, PE, CBI

Printed Name

Principal

Title

Arcos Bridge, Inc.

Nongovernmental Entity

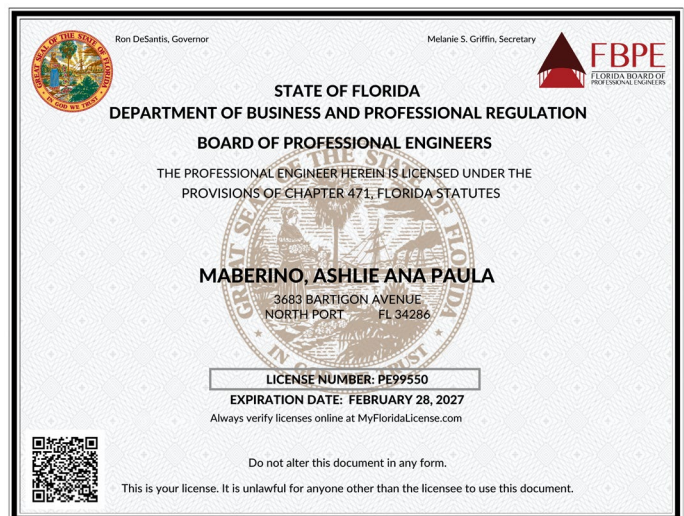
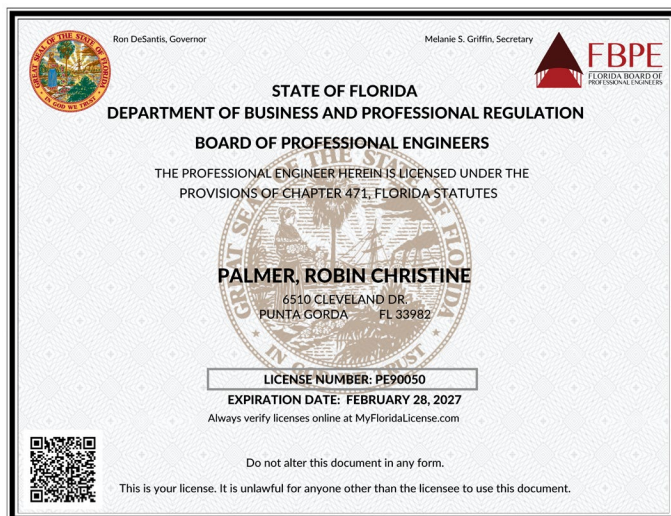
05/07/2025

Date

END OF PART IV

NAME OF FIRM Arcos Bridge, Inc.

(This form must be completed and returned)







Authorized Gopher Tortoise Agent
 FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
 Division of Habitat and Species Conservation
 Wildlife Diversity Conservation Section
 620 South Meridian Street, Mail Station 2A
 Tallahassee, Florida 32399-1600
 (850) 921-1031

Permittee Name: Laura Herrero
 Permittee Address: Johnson Engineering, Inc.
 2122 Johnson Street
 FORT MYERS, FLORIDA 33901
 UNITED STATES

Permit Number: GTA-13-00022D
 Effective Date: **June 29, 2021**
 Expiration Date: **June 28, 2025**

IS AUTHORIZED TO:

1. Conduct gopher tortoise surveys
2. Capture gopher tortoises using hand shovel excavation of gopher tortoise burrows
3. Supervise backhoe excavation of gopher tortoise burrows to capture gopher tortoises

Permittee Signature: 

Date: 6/29/2021

Not valid unless signed. By signature, confirms that all information provided to issue the permit is accurate and complete, and indicates acceptance and understanding of the provisions and conditions listed below. **Any false statements or misrepresentations when applying for this permit may result in felony charges and will result in revocation of this permit.**

Authorized By: Eric Seckinger

Authorized for: Eric Sutton, Executive Director

Authorizing Signature: 

Date: 06/29/2021

Wildlife Diversity Conservation Section

Is Authorized To (Continued)

This permit is in effect an amendment and supersedes all previous versions. All amended conditions and provisions of the previous permit (changed or new items) are indicated in bold text.

PERMIT CONDITIONS AND PROVISIONS:

1. Authorization to conduct the specified activities in association with the relocation of gopher tortoises in Florida is subject to Rules 68A-9.002 and 68A-27, Florida Administrative Code (F.A.C.), the Gopher Tortoise Permitting Guidelines (April 2008 – **revised July 2020**) [hereafter, the "Permitting Guidelines"], and subsequent revisions of these guidelines that are in effect at the time the authorized activities are conducted, and subject to the following provisions/conditions.
2. Authorized activities are also predicated and conditioned on the information and assurances provided in the Permittee's **06/23/2021 application (as supplemented)**, the assurances of which are herein incorporated by reference.
3. The Permittee shall only take, attempt to take, pursue, hunt, harass, capture, possess, or transport gopher tortoises, or molest, damage or destroy any gopher tortoise burrows when such activity is authorized by a separate permit (e.g., Conservation, 10 or Fewer Burrows, Temporary Exclusion, Recipient Site, Scientific Collecting) issued by the FWC for a specified property that authorizes the Permittee to capture and possess gopher tortoises from or within that property.
4. Gopher tortoise burrow surveys must be conducted in accordance with the Permitting Guidelines, or as amended. Surveys must be conducted no more than 90 days prior to submitting a relocation application.
5. Tortoises shall only be relocated when the low temperature at the recipient site is forecasted by the National Weather Service to be above 50° Fahrenheit for three consecutive days after release (including the day of relocation). This three-day window of milder overnight temperatures is required to allow the relocated tortoises to settle into the recipient site and to reduce the chance of cold-related stress or mortality.
6. Captured gopher tortoises that show signs of disease (i.e., nasal and ocular discharge, emaciation, etc.) shall not be relocated off-site to the authorized recipient site **and must be reported to the Gopher Tortoise Program (by phone 850-921-1031 or by email to GTPermits@MyFWC.com) within 48 hours of capture**. At the

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Permittee's discretion, symptomatic tortoises may be: relocated on-site; transported to and quarantined at a FWC-licensed wildlife rehabilitation center (list available upon request) or licensed veterinary facility for treatment and subsequent relocation of recovered, non-symptomatic gopher tortoises along with others from the population; transported and donated to a FWC-permitted disease research program; or humanely euthanized by a licensed veterinarian when disease is advanced.

- 7 Gopher tortoises released at a recipient site shall be released into an enclosure in conformance with the FWC enclosure requirements specified in the Permitting Guidelines, or as amended. Gopher tortoises should be released near existing abandoned burrows or excavated starter burrows at the recipient site.
- 8 Supervised backhoe excavation of gopher tortoise burrows shall only take place with at least two people present at each burrow. A backhoe operator and a person on the ground at the burrow is required at all times during backhoe excavation. Backhoes must be equipped with a flat blade on the bucket for digging. Excavation of a burrow should not be started unless it can be fully excavated in the same day. Burrow excavation is not complete until the burrow terminus is reached and all side chambers are found and completely excavated.
- 9 This permit does not authorize Permittee access to any public or private properties. Permission to access the property must be secured from the appropriate landholders prior to undertaking any work on such properties.
- 10 This permit is non-transferable and must be readily available for inspection at all times while engaging in the permitted activities. This permit can be suspended, revoked or not renewed for just cause pursuant to 68-1.010, Florida Administrative Code and Chapter 120, Florida Statutes. Criteria for suspension, revocation, or non-renewal of authorized agent permits and registered agents can be found in the Permitting Guidelines, or as amended.
- 11 The activities authorized under this Permit must be carried out by the Permittee or the Assistant(s) that are designated by the Permittee. The Permittee shall revise its list of designated Assistants utilizing the FWC online permitting system prior to that Assistant conducting any gopher tortoise activities authorized under this permit. The FWC reserves the right to deny a Permittee's designation of an individual as its Assistant if rights of the individual to obtain gopher tortoise permits have been suspended or revoked. All activities conducted by Assistants must be under the supervision and responsibility of the Permittee. Assistants must be directly supervised on-site by the Permittee when the Assistant(s) are collecting gopher tortoise blood samples or during backhoe excavation of gopher tortoise burrows. The Permittee shall be as fully responsible for activities conducted by Assistants and contracted backhoe operators to the same extent as if they had themselves carried out those activities under this Permit.
- 12 The Permittee and its Assistant(s) must carry with them either this original permit, or a complete copy, while engaged in the permitted gopher tortoise activities. The Assistant(s) must also be in possession of a copy of the letter of designation from the Permittee.
- 13 The Permittee, by signing this permit, specifically agrees to allow authorized Commission personnel, upon presentation of credentials as may be required by law, access to sites to inspect the activities authorized under this permit.
- 14 A request for permit renewal or extension should be submitted at least 45 days prior to the expiration date of this permit.

A person whose substantial interests are affected by FWC's action may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. A person seeking a hearing on FWC's action shall file a petition for hearing with the agency within 21 days of receipt of written notice of the decision. The petition must contain the information and otherwise comply with section 120.569, Florida Statutes, and the uniform rules of the Florida Division of Administration, chapter 28-106, Florida Administrative Code. If the FWC receives a petition, FWC will notify the Permittee. The attached Explanation of Rights statement provides additional information as to the rights of parties whose substantial interests are or may be affected by this action.

ROLANDO CORSA, PE, CBI

PRINCIPAL / BRIDGE ENGINEER

25 YEARS

TOTAL EXPERIENCE

CERTIFICATIONS & REGISTRATIONS

Professional Engineer
FL 73191

Certified Bridge Inspector
FL 00408

Certified General Contractor
FL 1514165

EDUCATION

BS Civil Engineering / University
of South Florida

Mr. Corsa graduated from the University of South Florida in 2000. He has been responsible for the design of new and replacement bridges and the inspection, evaluation, and rehabilitation design of existing bridges. His bridge experience includes the design of scour revetment systems, cast-in-place concrete box post-tensioned bridges, composite steel rolled beam and welded girder bridges, steel truss bridges, prestressed concrete AASHTO, Florida-I Beam and Florida Slab Beam bridges, cast-in-place slab bridges, Fiber Reinforced Polymer (FRP) beam bridges, Geosynthetic Reinforced Soil-Integrated Bridge System (GRS-IBS) bridges, 3 and 4 sided concrete box culverts, precast concrete frame bridges, and inspection and load rating of conventional and moveable bridges. His experience also includes designing miscellaneous transportation structures such as sign and mast arm structures, weirs, seawalls, temporary bridge steel support towers and sheet pile, cantilever, and anchored walls.

PROJECT EXPERIENCE

Ainger Creek (CR 775) Bridge Rehabilitation – Charlotte County, FL. Prepared comprehensive bridge rehabilitation design plans for this bridge. The superstructure for the Ainger Creek Bridge is a continuous, 4 span, cast-in-place concrete slab bridge with a total length of approximately 116 feet. The superstructure is supported on pile bents that consist of cast in place concrete caps and prestressed concrete piles. The bridge was constructed in 1981 and was widened in 2002. The repairs included: concrete spall repairs, rip rap repair/replacement, undermining repairs at end bents, sidewalk repair/replacement, guard rail replacement, pedestrian railing replacement, expansion joint replacement, and bridge deck repairs.

Washington Loop Bridge over Prairie Creek – Charlotte County, FL. Mr. Corsa was the Bridge EOR on several assignments for Bridge 010009, including having designed the thrie-beam retrofit (2017), conducted the emergency flood bridge inspections after Hurricane Irma (2017), and designed the ACB revetment system (2018).

Biscayne Drive over Jupiter & Apollo Waterway Bridges – Charlotte County, FL. Bridge EOR. Perform design, permitting, and construction oversight services for the rehabilitation of two (2) three-span-continuous adjacent slab beam bridges supported on prestressed concrete piles.

Rotonda Circle over Broadmoor Creek S. & Long Meadow Creek N. Bridges – Charlotte County, FL. Bridge EOR. Perform design, permitting, and construction oversight services for the rehabilitation of two (2) three-span-continuous adjacent slab beam bridges supported on prestressed concrete piles.

Bermont Road Box Culverts – Charlotte County, FL. Bridge EOR. Perform design, permitting, and construction oversight services for the rehabilitation of four (4) box culvert structures.

Emil Sweptson (CR 776) Bridge Rehabilitation – Charlotte County, FL. Prepared comprehensive bridge rehabilitation design plans for this bridge. The superstructure for the Emil Sweptson Bridge is a continuous, 12 span, cast-in-place concrete slab bridge with a total length of approximately 390 feet. The superstructure is supported on pile bents that consist of cast in place concrete caps and prestressed concrete piles. The bridge was constructed in 1980. The repairs included: concrete spall repairs, rip rap repair/replacement, undermining repairs at end bents, sidewalk repair/replacement, guard rail replacement, pedestrian railing replacement, expansion joint replacement, and bridge deck repairs.

Caloosa Shores Bridge – Sanibel Island, FL. Bridge EOR. The existing entrance bridge crossing Bowen Bayou to the Caloosa Shores community located in Sanibel, FL was damaged by Hurricane Ian in September of 2022. The Caloosa Shores

HOA awarded Arcos the preliminary/final design and construction engineering inspection (CEI) services for this bridge replacement.

Picayune Strand Restoration (US 41 and CR 92/San Marco Road) – Collier County, FL. Bridge EOR. structural engineering design and construction plans for three single barrel 12-foot-wide by 4-foot-high concrete box culverts under US 41, one double barrel 10-foot-wide by 3-foot-high concrete box culvert under County Road 92 (San Marco Road), and temporary critical walls required to support the structure excavations to facilitate the maintenance of traffic (MOT) during construction.

Bridgeway Lane Bridge Timber Superstructure Replacement – Naples, FL. Bridge EOR. Bridge inspection and load rating for this timber entrance bridge into a private community. The design services also included performing preliminary design plans for the replacement of the timber superstructure with new steel rolled beams and a composite concrete deck.

Lee County, Complete Streets Initiative – Lee County, FL. Bridge EOR. The proposed pathway on the portion of the project on Daniels Parkway from Six Mile Cypress Parkway to I-75 includes two bridge crossings over Six Mile Cypress. The options we considered to carry the pathway over Six Mile Cypress included widening the existing bridges or constructing new single span pedestrian bridges immediately adjacent and to the south of the existing bridges. We proposed to design and construct new single span pedestrian bridges using prefabricated steel trusses with a cast-in-place concrete deck and cast-in-place concrete abutments and wingwalls. We dismissed the alternative to widen the existing bridges from consideration for reasons that include higher cost, additional risk, increased impacts to the travelling public, and increased safety concerns.

City of Bonita Springs Bridge Program – Lee County, FL. Bridge EOR. This project included the inspection and rehabilitation of 8 bridge structures for the City of Bonita Springs. Mr. Corsa offered the city a cost savings delivery method of using Performance Specifications as bidding deliverables in lieu of full-blown repair plans. The typical repairs included patching of spalls, sidewalk reconstruction, milling, waterproofing and repaving of the roadway over the bridges, removal of vegetation, and scaling resurfacing.

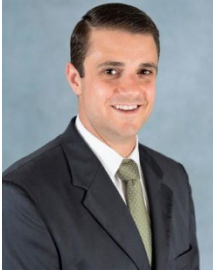
Charlotte County, Midway Boulevard Pedestrian Bridge over North Spring Lake – Charlotte County, FL. Bridge EOR. This project includes the design, permitting, and construction of the approach sidewalks and a new pedestrian bridge to carry the new sidewalk on the northwest side of Midway Boulevard over North Spring Lake. The existing Midway Boulevard Bridge is a four span, cast in place concrete slab bridge supported on prestressed pile bents. The total length is approximately 102 feet and it provides four lanes of traffic and shoulders. The new pedestrian bridge is a 124-foot span prefabricated steel truss with stringers and floor beams on pile supported concrete abutments. The bridge was designed to support numerous Charlotte County utilities.

Charlotte County, Babcock Ranch Entrance Bridge – Charlotte County, FL. Bridge EOR. Hired by Kitson & Partners to design the signature entrance bridge for this new town in Charlotte and Lee Counties that is planned to have 19,000 new homes. The bridge was designed with numerous aesthetic embellishments including steel trusses on the bridge fascia to provide the appearance of a historic bridge.

Design Build Project for Replacement of Melbourne Street Bridge – Charlotte County, FL. Project Engineer. Performed final design calculations and prepared final construction drawings for this 53-foot span bridge replacement that consists of composited prestressed concrete slab units supported on pile supported end bents.

Design Build Project for Replacement of Rock Ridge Rd. Bridge – FDOT District 1, Lakeland, FL. Bridge EOR. Performed final design calculations and prepared final construction drawings for this 38-foot span bridge replacement that consists of prestressed concrete slab units supported on GRS/IBS abutments.

Bridge Program Study Reports – Collier County, FL. This assignment involved the inspection and evaluation of 66 bridges that included box culverts, prestressed concrete slab, prestressed AASHTO beam, and prestressed tee beam type bridges. They varied from simple single spans over 20 feet to complex multi span bridges over 500 feet long.

**MICHAEL GIARDULLO, P.E.:** DIRECTOR OF CIVIL ENGINEERING

EDUCATION: BACHELOR OF SCIENCE, CIVIL ENGINEERING, LOYOLA MARYMOUNT UNIVERSITY,
 MASTER OF SCIENCE, CIVIL ENGINEERING, COLORADO STATE UNIVERSITY,
 MASTER OF BUSINESS ADMINISTRATION, UNIVERSITY OF MASSACHUSETTS;

Mr. Giardullo has been with Weiler Engineering for 19 years and currently serves as a Principal and the Director of Civil Engineering. Mike has performed design, permitting, and project management services for many municipalities including countless roadway, bridge, and stormwater projects in South and Southwest Florida. He has worked closely with FDOT, FDEP, SWFWMD, ACOE, and other regulatory agencies to complete project for both local government and state agencies. He is an expert in many types of funded projects and completing requirements to receive funding, design, construct, and meet stated requirements of the funding source.

CR 769 Bridge Scour Counter Measures—DeSoto County, FL

Mr. Giardullo was the project manager and engineer of record for the design of this project funded with a \$3,273,575 CDBG-MIT grant. WEC assisted with obtaining funding, maximizing the funding for improvements, design, permitting through SWFWMD and ACOE and obtaining a sovereign submerged lands lease. The design included the scour countermeasures of articulated concrete block mats and pile jacketing and numerous other bridge improvements including spill repairs, minor roadway repairs, and guardrail improvements.

SE Airport Road Bridge Scour Countermeasures – DeSoto County, FL

Mr. Giardullo served as a project manager for the design and permitting of Bridge 044012 along Airport Road over Joshua Creek. This grant funded project includes design, permitting, and construction, engineering, and inspection services. The improvements to this bridge included scour countermeasures, pile jacketing, and miscellaneous bridge repairs due to Hurricane Irma in 2017. This project was permitted through SWFWMD and FDEP and coordination with FEMA was required to indicate the intent to maintain the pre-storm profile by removing the corresponding depth of the existing creek bottom and installing articulating concrete block mat or riprap to the same top elevation.

County Road 760A Bridge Scour Countermeasures

Mr. Giardullo served as a project manager for the design and permitting of Bridge 044010 along CR 760A over Hawthorne Creek. This grant funded project includes design, permitting, and construction, engineering, and inspection services. The improvements to this bridge included scour countermeasures and miscellaneous bridge repairs due to Hurricane Irma in 2017. This project was permitted through SWFWMD and FDEP and coordination with FEMA was required to indicate the intent to maintain the pre-storm profile by removing the corresponding depth of the existing creek bottom and installing articulating concrete block mat or riprap to the same top elevation.

Reynolds Street Bridge Replacement – DeSoto County, FL

Mr. Giardullo served as the project manager and Engineer of Record for this project. The project included the replacement of the existing wooden pile structure and raising the elevation of the bottom chord. The new design maintained the cross-sectional channel area. This project was funded by FDOT through the Small County Outreach Program and was pertinent to providing enhanced safety benefits to the citizens that utilize this bridge daily.

County Engineer/Continuing Services—DeSoto County, FL

Mr. Giardullo currently serves in the role of County Engineer for DeSoto County. In this role, Mike provides recommendations and direction to the Board for County projects, development review, and supervises the Engineering Dept. staff. Since August of 2011, WEC has provided a range of engineering services to DeSoto, which include construction management and inspection services, project management, development of an annual CIP and road repaving program, coordination with various state and federal agencies on County projects, administration of grant funds, assistance with utility project design and master planning, and providing technical guidance to the Administrator and County Commissioners. The projects range from under \$5,000 to over several hundreds of thousands of dollars.



**ROBIN PALMER, P.E.:** ENVIRONMENTAL ENGINEER**EDUCATION:** BACHELOR OF SCIENCE ENVIRONMENTAL ENGINEERING FLORIDA GULF COAST UNIVERSITY

Ms. Palmer is a Professional Engineer. She is the Past President of the local Peace River Engineering Society. Ms. Palmer served for 4 years on the conference planning committee for the annual Southwest Florida Water Resource Conference held in Ft. Myers. In 2015, Ms. Palmer was recognized by the Governor for her first place award in technical writing at the ASCE Florida Section Annual Conference. She has served as the project manager for over 60 projects for the FDEP since 2016.

Fletcher Street Drainage Improvements-Charlotte County, FL- Ms. Palmer was the Design Engineer for the stormwater portion of the proposed project, which involved roadway and drainage improvements for a 4,920 linear feet roadway project on SW Fletcher St. extending from US Hwy 17 to Hillsborough Ave. Mrs. Palmer completed the stormwater modeling with ICPR to determine pipe sizes and inverts to provide underground piping in addition to regrading the swales to promote positive drainage without increasing the existing flowrate downstream. She was responsible for the permitting for the project through the FDOT and SWFWMD.

Lakeside RV Resort- Punta Gorda, FL- Ms. Palmer served as the Engineer of for the civil design a new RV resort. This 289 site RV resort utilized (2) large stormwater lakes to stormwater management. As part of the project, off site stormwater flowed through an existing swale. To mitigate this, the stormwater design had to account for an additional 152 acres of contributing area to avoid any off site impacts. This project was permitted through Charlotte County Stormwater and SWFWMD.

Spring Lake Stormwater Study-Lake Suzy, FL- Ms. Palmer served as the Design Engineer for the Spring Lake Stormwater Study. Ms. Palmer conducted multiple site visits, interviews with residents, and modeled the 2.5mi section of the drainage swale for recommendations on relieving the flooding of nearby residential neighborhoods. Ms. Palmer used ICPR to assess various options for solutions to the flooding at local subdivision. Ms. Palmer analyzed multiple ditch obstructions to determine which items impacted the flow of the 12sq mi. watershed through the drainage ditch. Ms. Palmer assisted with the grant application process through the Cooperative Funding Initiative with SWFMWD and completed the Benefit Cost Analysis for the project to obtain State funding. Ms. Palmer examined existing elevation, flood zone information, property ownership, property values, environmental impacts, and permitting requirements to determine which solution was the most cost effective.

Linger Lodge RV Resort-Bradenton, FL

Ms. Palmer served as the Design Engineer and Project Manager for a redevelopment project at a campground in Manatee County. The project included the redevelopment of a RV resort along the Braden River. Ms. Palmer conducted all stormwater management calculations and completed the civil site design for new campsites, parking, roadways, buffers, and utilities. The project required permitting through the Southwest Florida Water Management District, Florida Department of Environmental Protection, and Manatee County.

FDEP Bahia Honda State Park Repair: Ms. Palmer served as the Project Manager and Design Engineer for multiple projects at Bahia Honda State Park. The first project entailed the civils site work, utility connections, and structural foundation for (2) prefabricated restrooms at a day use beach area and campground. The second project involved the replacement of a large day use beach area including the restroom, parking, sidewalks, and shoreline stabilization. Shoreline stabilization included both a vegetated buffer and rip rap. Ms. Palmer also served as the Project Manager for the replacement of a beach front campground. Shoreline stabilization was complete along the coastal campsites to protect against future storm events. This project required a redesign of the existing campground, utilities, boardwalk, and repair to an existing bathhouse.

**BRIAN CORSO:** STRUCTURAL DEPARTMENT MANAGER**EDUCATION:** BACHELOR OF DESIGN, UNIVERSITY OF FLORIDA SCHOOL OF ARCHITECTURE

- Total of 14 years design experience
- 10 years with WEC
- 9 years experience heading the structural department
- Structural Department Manager

Mr. Corso has worked as the lead structural designer on many projects that require an understanding of schematic design, design development, material selection, and cost engineering. Mr. Corso has done many different types of projects throughout South and Southwest Florida that include private entities and government agencies. Mr. Corso's attention to detail and communication with his clients has allowed him to maintain working relationships with many of his clients. During his time at WEC, Mr. Corso has displayed economical practices by achieving the goals of the project while implementing cost saving techniques during the design phase of his projects.

SE Airport Road Bridge Scour Countermeasures —DeSoto County, FL

Mr. Corso assisted Mr. Giardullo with the design of this project. This project consisted of coordination with FDEP, ACOE, and SWFWMD for permitting. This included the stabilization of the stream bed which surrounded the existing bridge piles and abutments. Mr. Corso assisted in deciding the means of stabilization by either installing riprap or articulating concrete block revetment mat. This decision was aided by Mr. Corso's knowledge of the different materials while comparing cost and longevity.

Reynolds Street Bridge Replacement—DeSoto County, FL

Mr. Corso worked on the replacement of FDOT Bridge #044034 over Hawthorn Creek in 2018. This project consisted of the replacement of the existing wooden pile structure with a concrete support structure. During design, Mr. Corso was able to maintain the current cross-sectional channel to ensure disturbance was left to a minimum. This project was attended to in great detail as this bridge replacement was an important safety measure for the community to allow for longevity of the bridge and more suitable materials for a bridge of this size and condition. WEC worked closely with FDOT to maintain traffic standards and compliance with the Small County Outreach Program which provided funding for this project.

DeSoto County Fire station #1—DeSoto County, FL

Mr. Corso worked as the Structural Designer on this project leading the schematic design, design development, materials selection, and design criteria specification phase of the project. Mr. Corso also reviewed the Architect's Construction Documents for consistency, errors, and coordination with the design criteria package. Construction administration included submittal review, contractor alternate approvals, and conflict troubleshooting.

Harborwalk at Gilchrist Park—Punta Gorda, FL

Mr. Corso worked as the Structural Designer on this project leading the design development and creating the Construction Documents for the restroom facility. He worked closely with The City of Punta Gorda during the design phase to insure the project met requirements from the varying branches of the local government and has continued to do so into the construction phase.

Veterans Memorial Park Boat Ramp —DeSoto County, FL

Mr. Corso assisted Mike Giardullo on the design of the Veterans Memorial Park Boat Ramp and Park Improvements. These improvements consisted of the construction of a parking lot, boat ramp, floating dock, and the stormwater management system. Mr. Corso incorporated important elements to prevent soil erosion near the boat ramp. He also was integral in the design of the floating dock and incorporated steel piles, wing wall, and other elements.



ASHLIE MABERINO, P.E.: CIVIL ENGINEERING PROJECT MANAGER
EDUCATION: BACHELOR OF SCIENCE, CIVIL ENGINEERING, FLORIDA GULF COAST UNIVERSITY

- Total of 6 years design experience
- 5 years with WEC

Mrs. Mabertino is a graduate from Florida Gulf Coast University with a Bachelor of Science in Civil Engineering. Mrs. Mabertino has over 6 years of engineering experience. Mrs. Mabertino's experience is in site design, permitting, utility studies, utility management, and stormwater design. Through her role as a Design Engineer, Mrs. Mabertino has worked with local governmental agencies and municipalities on site design and permitting. Mrs. Mabertino has worked with SWFWMD, ACOE FDOT, FDEP, and other permitting agencies on numerous projects.

CR 769 Bridge Scour Counter Measures—DeSoto County, FL

Mrs. Mabertino was the lead designer for this project funded with a \$3,273,575 CDBG-MIT grant. WEC assisted with obtaining funding, maximizing the funding for improvements, design, permitting through SWFWMD and ACOE and obtaining a sovereign submerged lands lease. The design included the scour countermeasures of articulated concrete block mats and pile jacketing and numerous other bridge improvements including spall repairs, minor roadway repairs, and guardrail improvements.

SE Airport Road Bridge Scour Countermeasures – DeSoto County, FL

Mrs. Mabertino was the lead designer for this design and permitting of Bridge 044012 along Airport Road over Joshua Creek. This grant funded project includes design, permitting, and construction, engineering and inspection services. The improvements to this bridge included scour countermeasures, pile jacketing, and miscellaneous bridge repairs due to Hurricane Irma in 2017. This project was permitted through SWFWMD and FDEP and coordination with FEMA was required to indicate the intent to maintain the pre-storm profile by removing the corresponding depth of the existing creek bottom and installing articulating concrete block mat or riprap to the same top elevation.

Harborwalk Phase 2b – Punta Gorda, FL

WEC was contracted to modify an existing ERP permit through the SWFWMD on phase 2b of the Harborwalk within the City of Punta Gorda. As the Design Engineer, Mrs. Mabertino assisted with modifying the stormwater management system and modeling it within ICPR 3. Mrs. Mabertino also updated the engineering report and submitted permits to the required permitting agencies. Mrs. Mabertino was responsible for verifying the underground utilities for conflicts within the park.

Sunset Blvd East Sidewalk and Marathon Blvd Pathway, Charlotte County, FL

Mrs. Mabertino recently completed the design and permitting for the Sunset Blvd East Sidewalk and the Marathon Blvd Pathway Projects. She was responsible for the permitting and is currently responsible for the construction Engineering and Inspection for both roadway sidewalks and Pathways. Mrs. Mabertino has been responsible for the design as well as the coordination with the utilities and regulatory agencies. She also was integral in coordinating with SWFWMD to determine that the swale volumes were not being decreased by construction of the sidewalk.

William R. Gaines Veterans Memorial Park, Charlotte County, FL

Mrs. Mabertino is currently working on the permitting for the mulch-trail and boardwalks through William R. Gaines Veterans memorial Park. This project requires permits from both SWFWMD and ACOE. Mrs. Mabertino has been responsible for coordinating with the regulatory agencies and responding to RFIs as well as the design of the mulch trail, boardwalks, educational signage, and exercise stations.

South County Regional Park, Charlotte County, FL

Mrs. Mabertino was responsible for the design and permitting of the improvements to South County Regional parks. She obtained a minor modification from SWFWMD and coordinated with County staff. She recently assisted Michael Giardullo on the construction, engineering and inspection for this project addressing and RFIs and submittals that were sent throughout the project.



LAURA BRADY HERRERO

Environmental Permitting



lherrero@johnsoneng.com
239.461.2457

Years Experience

31 years

Education/Training

B.S. Ecology (1993),
University of Illinois

Master's Work in Env. Sciences
University of Alaska Anchorage
(1997-1999)

Certified Ecologist, ESA

FAA Qualified Wildlife Biologist

Authorized Gopher Tortoise Agent
with the FWC (GTA-13-00022)

Professional Affiliations

Ecological Society of America

Florida Association of
Environmental Professionals (Past
Chapter President)

Florida Airports Council
Environmental Advisory
Committee Member

Laura joined the firm in 2000 and serves as director of the firm's environmental consulting team, whose ecologists have more than 100 years of combined experience. As a certified ecologist, her duties include State and Federal wetland jurisdictional determinations, protected species surveys, habitat and species management plans, coordination and permitting with the Florida Fish and Wildlife Conservation Commission (FWC) and U.S. Fish and Wildlife Service (FWS), FWS Biological Assessments and Biological Opinions, wetland/listed species mitigation proposals and mitigation monitoring, Environmental Resource Permit and Federal Dredge and Fill applications, as well as follow-through to permit issuance and post-permit compliance. She is also an FWC Authorized Gopher Tortoise Agent, Federal Aviation Administration Qualified Wildlife Biologist, and FWS qualified caracara observer with over 1,600 hours of caracara survey experience and 40 nests found to date. Laura has served as the Project Manager and/or environmental lead for the permitting of many private and public sector projects and has provided expert witness testimony regarding ecological issues related to Lee and Collier County zoning cases.

Relevant Experience

Babcock Ranch Community - Conducted wetland delineations and functional assessments of both wetland impacts and mitigation areas on approximately 17,800 acres; freshwater biomonitoring utilizing fish and macroinvertebrates; wildlife surveys; Environmental Resource Permitting; preparation of the mitigation plan which includes 6,800 acres of onsite mitigation and 5,900 acres of mitigation on the State owned portion of the Babcock Ranch Preserve.

Town of Ft. Myers Beach - Lead ecologist on the Phase 1A watermain and drainage improvement project (sub-consultant to Mitchell & Stark) performing jurisdictional determinations, eagle monitoring, Coastal Construction Control Line (CCCL) permitting with the DEP, and assisting in evaluation of design changes to avoid impacts to mangroves and Estero bay.

SFWMD Crested Caracara Monitoring - Served as lead field ecologist working on the Kissimmee River Post-Restoration Monitoring of the Crested Caracara along the Kissimmee River Restoration Corridor; trained by Joan Morrison, Ph. D., and permitted by FWS under Dr. Morrison's permit, to capture and fit sub-adult caracaras with a radio transmitter (2000-2003); C-43 West Storage Reservoir caracara nest location surveys and productivity monitoring, assistance with trapping and banding and post-tagging monitoring (2015 – current); C-139 Annex Restoration nest location surveys and productivity monitoring (Phase 1 and portions of Phase 2, January 2018-current nesting seasons).

Joel Boulevard Park, Lee County - Johnson Engineering laid the ground work with a wetland determination, complete survey and site analysis services necessary before beginning the park concept plan. The Park Concept plan has been designed to include the elements the County envisioned for this passive park which include: a signed entry, parking lot facility and parking for school buses, picnic areas, tot lot and playground, a restroom, an outdoor environmental classroom, acres of agricultural operations for both uplands and marsh crops, acres of created wet marsh for wildlife habitat and environmental education, an area of existing Gopher Tortoise preserve, and miles of accessible trail throughout all areas of the park.

Lee County DOT - Wetland delineations, wetland functional assessments, mitigation proposals, listed species surveys, and State and federal permitting for Alico Road Corridor Study, Alico Road Widening, Gladiolus Drive Widening, Six-Mile Cypress Parkway Widening, A&W Bulb Road Safety Improvements, and Fiddlesticks Bike Path.

Lee County Public Works - Permitted and oversaw construction and monitoring of the Section 33 Regional Mitigation Site; designed and permitted the Wild Turkey Strand Site 90 Mitigation Area just north of Alico Road; both of these projects included coordination with U.S. Fish and Wildlife Service for determination of available panther and wood stork mitigation.

Lee County Port Authority - Provided environmental analysis to assist with the RSW Comprehensive Plan Amendment to support permitting of 200 acres of non-aviation development; State and Federal environmental permitting for Skyplex Boulevard and Phases I and II of the RSW Remediation of Hazardous Wildlife Areas; assisted with the permitting of the Midfield Terminal Expansion and Mitigation Park, the RSW and FMY Wildlife Hazard Assessments; and the implementation of the associated Wildlife Hazard Management Plans.