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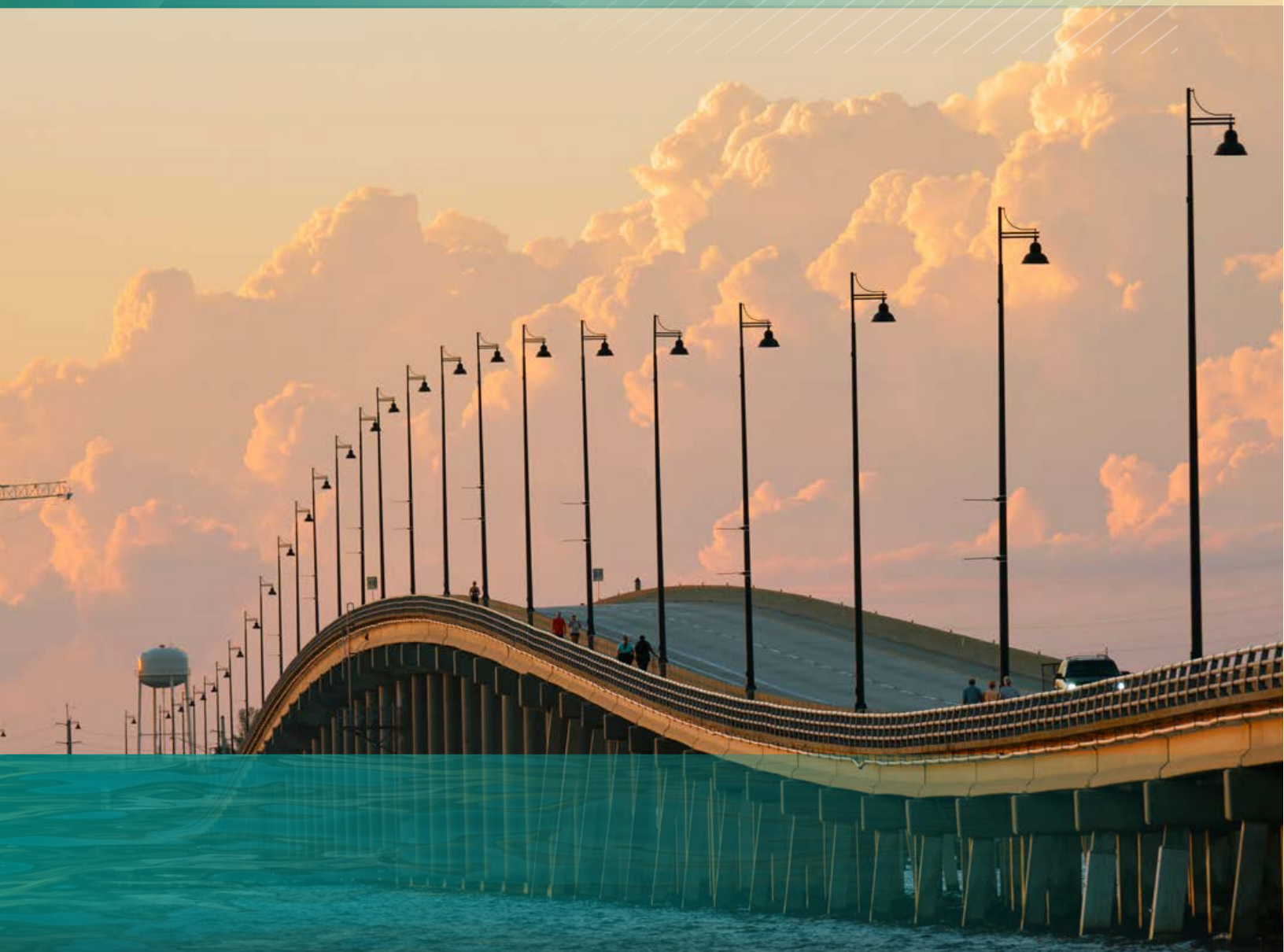
CHARLOTTE COUNTY

Design-Bridge Scour Study and Countermeasures Response to RFP No. 20250383



DRMP TAMPA OFFICE | 15310 Amberly Drive, Suite 310 | Tampa, FL 33647 ·
PROJECT MANAGER: Leo Rodriguez, PE | **EMAIL:** LRodriguez@DRMP.com | **PHONE:** 239.206.5093

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TAB I

Team Proposed For This Project

15310 Amberly Drive, Suite 310, Tampa, FL 33647
Phone: 813.462.2661
Primary Contact: Leo Rodriguez, PE | Email: LRodriguez@drmp.com
1.833.811.3767 | www.DRMP.com

May 29th, 2025
Charlotte County Administrative Center
18500 Murdock Circle, Suite 344
Port Charlotte, FL 33948

Subject: DESIGN – BRIDGE SCOUR STUDY AND COUNTERMEASURES | RFP 20250383

Dear Selection Committee:

DRMP, Inc. (DRMP) appreciates the opportunity to submit our qualifications and project approach to Charlotte County (County) Design – Bridge Scour Study and Countermeasures.

For the past two years, DRMP has been working with the County to deliver multiple bridge projects. It has been both an honor and a rewarding experience. Together, we've delivered **modern**, **safe**, and **cost-effective** bridges that will benefit the community for years to come. The DRMP Team will bring the same enthusiasm and proactive approach to the Bridge Scour Study and Countermeasures project.

When we commited to respond to this RFP, we recognized the County's ability to successfully secure funding and provide an economical and safe bridge design hinges on putting together an excellent team of professionals with relevant local and state-wide experience. This team must possess unique qualifications and a thorough understanding of the County, its mission, processes and most importantly, the limited resources in which it operates.

PROJECT MANAGER

Leo Rodriguez, PE
Structures Group Leader
17 Years of Experience

VICE PRESIDENT

Amanda E. Woods, PE
Vice President/Director of Transportation
27 Years Of Experience

We have assembled our "A-Team" with **Leo Rodriguez, PE**, as Project Manager (PM). As the PM for several bridge repairs and Charlotte County bridge projects, Mr. Rodriguez has a unique understanding of overlapping complex bridge and environmental issues. With our skilled team, we are well-positioned to identify innovative solutions that will advance the project efficiently and effectively for the County. Mr. Rodriguez is an invaluable asset, bringing expertise and insight that will ensure the successful delivery of this project.

Our team is unmatched at being able to navigate projects through the federal and state environmental processes and is well-prepared to support this bridge scour study and countermeasures project.

Respectfully submitted,
DRMP, Inc.

Leo Rodriguez, PE
LRodriguez@drmp.com
PM/POC

Amanda E. Woods, PE
Vice President/Director of Transportation

A. BACKGROUND OF PERSONNEL

LEO RODRIGUEZ, PE | Project Manager | Structures EOR | Construction Services

Leo will be the DRMP Team Project Manager and primary point-of-contact throughout the life of this contract. Mr. Rodriguez has led bridge rehabilitation and replacement projects. He is responsible for coordination, budget/schedule control, progress reporting, quality delivery and overseeing post design services and project construction. Mr. Rodriguez is a hands-on Project Manager and Structural Engineer. He will ensure the County successfully receives a timely, economical, efficient and safe design. Leo has been involved in several Charlotte County bridges as indicated below. The lead designer will not be substituted without the express permission of the County.

RELEVANT PROJECT EXPERIENCE

- ***2017 Tom Adams Bridge Rehabilitations – Structures Lead***
- Cape Haze Bridge Rehabilitation – Project Manager and Structures EOR
- Englewood East/Gulf Cove MSBU's Bridge Rehabilitations – Project Manager and Structures EOR
- South Gulf Cove FY24 Bridge Rehabilitations – Project Manager and Structures EOR
- Northwest Port Charlotte MSBU Bridge Rehabilitations – Project Manager and Structures EOR
- Shore Drive Bridge Replacement, Pinellas County - PM and Structures EOR
- 13th Street Bridge Replacement, Pinellas County - PM and Structures EOR
- County Line Road Bridge Replacement, Martin County - PM and Structures EOR

2. OTHER KEY PERSONNEL

AMANDA WOODS, PE | Vice President-in-Charge

Leadership and accountability start at the top and begin with the involvement of Amanda. She has been involved in all phases of design, from preliminary engineering to the final design of highway-related structures for conventional and design-build projects. Ms. Woods has been responsible for the preparations of preliminary and final design calculations and plans production on many single and multiple bridge projects involving rehabilitation, bridge widening, bridge replacement and new bridges.

RELEVANT PROJECT EXPERIENCE

- Cape Haze Bridge Rehabilitation – Vice President-in-Charge
- Englewood East/Gulf Cove MSBU's Bridge Rehabilitations – Vice President-in-Charge
- South Gulf Cove FY24 Bridge Rehabilitations – Vice President-in-Charge
- Northwest Port Charlotte MSBU Bridge Rehabilitations – Vice President-in-Charge

PAVAN PAIAVULA, PE | Roadway Design and Maintenance of Traffic

Pavan is responsible for the design of simple to complex roadway designs, maintenance of traffic (MOT), pedestrian/ADA, safety improvements, drainage, Signing & Pavements Markings and utility relocation. He has extensive experience with County and FDOT policies, criteria, specifications, design standards, and in innovative designs (including roundabouts and Full Depth Reclamation-FDR). Mr. Paiavula has been assisting with Charlotte County projects.

RELEVANT PROJECT EXPERIENCE

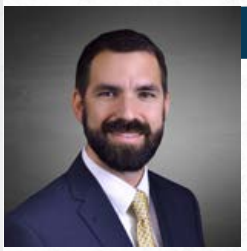
- Northwest Port Charlotte MSBU Bridge Rehabilitations
- Shore Drive Bridge Replacement, Pinellas County
- 13th Street Bridge Replacement, Pinellas County
- County Line Road Bridge Replacement, Martin County

RACHEL SCHMIDT, PWS | Environmental | Permitting Assistance

Rachel L. Schmidt, PWS, serves as the Environmental Department Manager for DRMP's Transportation Market Sector. She has extensive experience in Florida conducting wetland delineations, protected species surveys and relocations, state and local permitting and preparing documentation to assist various clients in the project planning, design, and permitting process. Her combined knowledge of the regional ecosystems and the federal, state and local agency permitting brings a solution-oriented approach throughout the duration of a project. Mrs. Schmidt has been leading permitting for Charlotte County projects.

RELEVANT PROJECT EXPERIENCE

- Cape Haze Bridge Rehabilitation, Charlotte County
- Englewood East/Gulf Cove MSBU's Bridge Rehabilitations, Charlotte County
- South Gulf Cove FY24 Bridge Rehabilitations, Charlotte County
- Northwest Port Charlotte MSBU Bridge Rehabilitations, Charlotte County



CHRISTOPHER WILD, PSM | Surveying | Mapping | SUE

Chris serves as a Project Manager for surveying and mapping projects specializing in design surveys, control surveys, topographic and boundary surveys, plats, legal descriptions and right-of-way mapping. His responsibilities include contract administration and project coordination, technical oversight and professional development of staff, budget and schedule coordination and quality assurance/quality control of survey deliverables.

RELEVANT PROJECT EXPERIENCE

- Shore Drive Bridge Replacement, Pinellas County
- Northwest Port Charlotte MSBU Bridge Rehabilitations, Charlotte County

THOMAS E. MUSGRAVE, PE | Geotechnical Engineer

Mr. Musgrave has over 13 years of experience in Structural and Geotechnical Engineering, covering structural damage assessment, analysis, and forensic investigation. His work includes FDOT roadway projects, subsidence investigations, bridge analysis, pavement evaluation, and corrosion testing. He has also conducted structural testing, including GPR evaluation of concrete and steel reinforcement.

RELEVANT PROJECT EXPERIENCE

- Big Carlos Pass Bridge Reconstruction, Lee County and FDOT District 1 - Geotechnical Engineer
- I-75 over Salt Marsh, Manatee County, FDOT District 1 - Geotechnical Engineer
- Darst Park Seawall Replacement, Charlotte County - Geotechnical Engineer
- Harbor Heights Park Seawall Replacement, Charlotte County - Geotechnical Engineer
- Live Oak Point Boardwalk Seawall Assessment, Charlotte County - Geotechnical Engineer

DAVID JOHNSON, PE | Structures | Scour

David Johnson, PE serves as a Structures Senior Engineer for DRMP's Transportation Market Sector. He has 14 years of structural design and project management experience, including bridge replacements, bridge repairs, seawalls, traffic signal mast arms, span wires, piers, boardwalks, and vertical structures. He has extensive technical knowledge in scour evaluation for unknown foundation bridges, scour countermeasure design, and finite element analysis on dual cable span wire structures. His experience also includes bridge inspections, fracture critical inspections, and emergency response events.

RELEVANT PROJECT EXPERIENCE

- Summer Haven Design Build
- Hillsborough County Bridge Continuing Services Contract
- Unknown Foundations Scour Elevation & Analysis, FDOT Districts 2,5 & 7
- FDOT District 2 & District 5 Local Bridge Inspections - Bridge Load Ratings (Superstructure, Substructure & IBLR

MARK GOSSELIN, PHD, PE | Hydraulics | Scour

Mark Gosselin has nearly three decades of experience in coastal processes, nearshore and open channel hydrodynamics, and sediment transport. Dr. Gosselin has served as project manager on hundreds of scour and hydraulics assessments of bridges and coastal structures throughout the country and has served as project manager on numerous coastal engineering studies that have involved wave, hurricane storm surge, riverine flooding, and dam break hydraulic modeling. His experience covers the southeastern U.S., Virginia, Washington, and Puerto Rico, and clients such as state departments of transportations, the Federal Highway Administration, U.S. Army Corps of Engineers districts, the Federal Emergency Management Agency (FEMA), and NASA. He has applied SWAN+ADCIRC, RMA2, FESWMS, AdH, HEC-RAS and other analytical techniques to support Dr Gosselin has authored design guidelines at both the state and federal level for clients including NCHRP, FDOT, SCDOT, and NCDOT.

RELEVANT PROJECT EXPERIENCE

- Hydraulic and Scour Analysis for the Periwinkle Way Bridge over Joey Canal, City of Sanibel, Lee County, FL. 2024 - Present.
- Pine Island Roadway – Permanent Repairs, Florida Department of Transportation - District 1, Lee County, FL. 2023.
- Sanibel Causeway Bridge, Lee County, Emergency Procurement, Florida Department of Transportation – District 1, Lee County, FL. 2022-2023.

3. SUBCONSULTANTS

DRMP will be supported by qualified subconsultants that we have found to be beneficial on similar projects. These subconsultants have been selected based on their experience, extensive structural capabilities and availability of resources to provide cost-effective and creative solutions for the County.

Tierra, Inc. (Tierra)
Project Role: Geotechnical Engineering and Material Testing/Hazardous Waste/ Contamination

Tierra is a full-service consulting geotechnical, environmental, and construction materials testing engineering firm. Tierra was formed as a geotechnical engineering, contamination assessment, and materials engineering firm with the intent of building upon the many years of combined experience of its founding principles. Tierra is committed to providing quality, responsive service establishing a reputation for sound approaches and professional competence in a wide range of technically demanding areas. Tierra is a State of Florida-certified MBE. Tierra began operations in Florida in May 1992 and has offices in Tampa, Winter Garden, and Pensacola.

Tierra's staff of more than 180 professionals includes principal engineers and technicians certified through CTQP, ACI, and state programs with five to more than 40 years of experience in contamination assessments, geotechnical, construction, laboratory and field materials testing, and inspection services.

Intera Incorporated
Project Role: Hydraulics Analysis

INTERA Incorporated has a three-decade-long, proven track record of providing bridge scour and coastal engineering related services in support of infrastructure design. These services have included scour and wave force research, development of state and federal guidance documentation, disaster response, historical hindcasting of hurricane hydrodynamics, and development of design hydraulic and scour parameters at bridges in support of design, design/build, and scour evaluation studies. Our personnel have completed bridge hydraulics reports, bridge hydraulics analyses, and/or scour assessments for hundreds of individual riverine and tidal bridges across the Florida as well as LA, MS, NY, NC, SC, TX, VA, and WA. These applications have included prediction of design hydraulic and scour conditions during both hurricane storm surge and riverine flooding events for design, evaluation, and hindcasting projects. Examples of INTERA's work on several high-profile bridges include the Choctawhatchee Bay Bridge, the new Tacoma Narrows Bridge in Washington, and the John James Audubon Bridge over the Mississippi River in Louisiana. INTERA's experience in the area includes work on restoring the Sanibel Causeway following Hurricane Ian, the Matlacha causeway, the Big Carlos Pass Bridge, and the Cape Coral Bridge.

As the premier hydraulics firm in Florida, Intera Incorporated has recent hydraulic models of Florida considering the most recent hurricanes.

TAB II

Proposed Management Plan

CHARLOTTE COUNTY
Purchasing Division

Vice President-In-Charge
Amanda Woods, PE

Project Manager/Point of Contact
Leo Rodriguez, PE

Quality Assurance/Quality Control
DRAINAGE - Donald Brown, PE
STRUCTURES - Scott Benson, PE
PERMITTING - George McLatchey, PWS, CEP
SURVEY - Joseph Di Benedetto, PLS
CONSTRUCTIBILITY- Mark Gosselin, PhD, PE

Structural Engineering
Leo Rodriguez, PE
Jocelyn Haisch-Linn, PE
David Johnson, PE
Darshan Devaraja, PE
Ruthvik Pendayala, EI

Utility Coordination
Arnesa Zunic

Surveying & Mapping/Subsurface Utility Engineering (SUE)/ Right-of-Way Mapping
Chris Wild, PSM
David Paul Charles, PSM

Bridge Hydraulics/Coastal & Hydraulic Engineering
Mark Gosselin, PhD, PE (2)
Huseyin Demir, PhD, PE (2)
Miao Tian, PhD, PE (2)

Drainage Design
Ryan Harrison, EI
Zak Keller, PE
Mike Jaroch, PE

Permitting Assistance
Rachel Schmidt,PWS
Brady Hart

Geotechnical Engineering
Tom Musgrave, PE (1)
Larry Moore, PE (1)

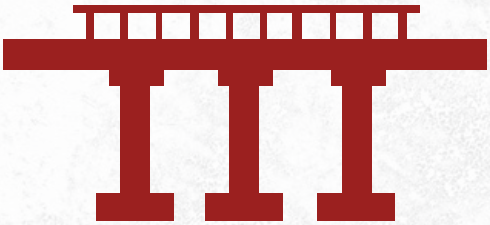
Roadway Design/ Maintenance of Traffic
Pavan Paiavula, PE
Christopher Perez, PE

Public Involvement Support
Leo Rodriguez, PE

(1) Tierra, Inc. **MBE**
(2) Intera Incorporated

Key Staff - Resumes included

1. DESIGN PHASE



DRMP's management philosophy is to do whatever it is required to fulfill the needs of the County to design and construct an economical and reliable structure with minimal interruption to the public. Our Project Manager, **Leo E. Rodriguez, PE**, will be the primary point-of-contact and will be fully responsible for coordination, budget/schedule control, progress reporting, quality delivery of each task word order, overseeing post design services and project construction.

The design phase will include survey, right-of-way, geotech, MOT, bridge design, independent design review, utility coordination and extensive environmental permitting. Please refer to our project approach on how we will address each of these items.

PROJECT MANAGEMENT PLAN (PMP)

After the kick-off meeting, DRMP will submit a PMP addressing project execution and controls of quality, schedule, budget and project risks. This PMP will control time and budget while putting in place a robust Quality Control Plan that minimizes construction change orders.

This PMP will include:

- **Communication:** Mr. Rodriguez will be the primary point of contact and maintain clear and constant communication with the County.
- **Risk management:** DRMP will perform risk analysis for each task and closely monitor risks with a risk register. All risks will be thoroughly discussed with the County, along with our mitigation strategy and plan of action.
- **Checklists:** All County's sufficiency checklist for each phase submittal and bid package preparation.
- **Schedule and Budget Control:** Identifies task-level budgets, dates of key milestones, and critical path activities.

QUALITY CONTROL/QUALITY ASSURANCE (QC/QA)

DRMP's quality control process starts from day one and continues until the project is finished. A Project Quality Control Plan (QCP) will be developed and submitted to the County after the Notice to Proceed is issued. It includes procedures, checklists and individuals responsible for reviewing the various design disciplines. The primary focus of this plan will be to implement policies that provide internal means for control and review so that the investigative, analysis, and design work performed by DRMP staff and its subconsultants meets accepted professional standards.

Our goal is to minimize the County's review effort, construction RFIs and eliminate construction claims and delays. Ultimately, **It is our responsibility to provide you with a high-quality product.**

QUALITY CONTROL PLAN

The section below defines our quality control (QC) process for each type of deliverable (e.g., reports, plans, specifications, estimates, models, etc.). **Our unique nine-step QC process consists of the following:**

- **Production Check**: Four-step process where the Lead Technical Professional Engineer and Production Control Reviewer ensure the documents are checked and ready for Quality Control.
- **Quality Control Check**: Five-step process where the Lead Technical Professional submits the documents to the Quality Control Reviewer (not involved in Production Check) for complete independent quality review.

ADDITIONAL INDEPENDENT QUALITY CONTROL REVIEWS

- **Peer Review**: Engages senior staff not involved in the project to vet design solutions and identify complexity, potential liability exposure and other sensitive items.
- **Constructability Review**: Engages our CEI staff to help avoid errors and omissions in specifications and drawings and identify any potential construction constraints.
- **Biddability Review**: Ensures contract documents are sufficiently detailed to allow reasonable bidding by Contractors.
- **Additional Reviews**: Our team also performs maintainability, safety and plans-in-hands field reviews.

QUALITY ASSURANCE PLAN

Quality Assurance is a company-wide process that confirms that the proper processes are in place to assure that our services and products meet the standard of care. Our Quality Assurance Plan identifies procedural shortfalls and recommends changes to improve our processes.

The QA form contains the following:

- Executive Summary
- Evaluation Method
- Findings and Observations
- Recommendations

Quality Assurance Managers will perform QA on all of our submittals including our subconsultants' documents.

QUALITY CONTROL STAFF AND DOCUMENTATION/CHECKLISTS AND CERTIFICATE OF COMPLIANCE

Defines a list of required deliverables and associated discipline area leads and staff. By doing so, DRMP commits staff to the project and ensures a consistent level of quality. Our QCP will identify the following staff:

- Engineer of Record (EOR) per Discipline
- Lead Technical Professional per Discipline
- Quality Control Reviewer per Discipline
- Quality Assurance Manager
- Checklists and Certificate of Compliance
- Checklists and Certificate of Compliance
- Discipline Checklists

COMMITMENT TO QUALITY

As prime consultant, DRMP will perform Quality Assurance on each deliverable, including our subconsultants, and verify the quality levels meet the standard of care. Additionally, DRMP performs a unique quarterly audit where our QC/QA process along with repeated comments and lessons learned from our design-build and CEI staff are reviewed. This has resulted in an internal "Lessons Learned" database and updated discipline checklists to ensure the highest quality deliverable is provided to our clients.

2. CONSTRUCTION PHASE

Our Project Manager, **Leo E. Rodriguez, PE,** will remain on board to oversee the Post Design Services during construction. Additionally, the same design staff will remain to ensure consistency and continuity when handling Post Design tasks. Our team knows how time-sensitive construction tasks are and the cost impacts of not resolving in an expedited manner. We will acknowledge requests upon receipt with the goal of **resolving RFIs and RFMs within one day and submittal reviews within 10 days.**

RESUMES

On the following pages, you will find the resumes of our key team members, outlining their relevant experience and qualifications. These documents provide a detailed overview of the expertise and background that each individual brings.

LEO RODRIGUEZ, PE

Project Manager

17 Years of Experience | **5** Years at DRMP

Experience Summary

Leo Rodriguez, PE, serves as a Structures Project Manager for DRMP's Transportation Market Sector. He has experience with the replacement, widening and rehabilitation of fixed and movable bridges, design of new tolling facilities and building structures, and design of miscellaneous structures including sheet pile walls in coastal environments. He is responsible for planning, developing, quality control and delivery of studies, designs, plans, specifications and estimates for design build, conventional and complex transportation projects. Additionally, Mr. Rodriguez has provided inspections and construction support services.

Professional Registration
Professional Engineer
No. 78493, Florida, 2015
No. 0044201, Louisiana, 2019

Education
Master of Science in Civil Engineering, Utah State University, 2012
Bachelor of Science in Civil Engineering, INTEC, Santo Domingo, Dominican Republic, 2008

Software Aptitude
AutoCAD Civil 3D
CSI Bridge
MDX
MicroStation
Midas
OpenBridge Modeler
OpenRoads Designer (ORD)

Professional Affiliation
American Concrete Institute (ACI)
American Council of Engineering Companies (ACEC), Florida Structural Committee Member
American Institute of Steel Construction (AISC)
American Society of Civil Engineers (ASCE)
American Society of Highway Engineers (ASHE)
Florida Engineering Society (FES)

Relevant Project Experience

Northwest Port Charlotte MSBU Bridge Rehabilitations, Charlotte County, Florida: Project Manager and Engineer of Record responsible for the design, plans preparation and specifications for the bridge widening along Chamberlain Blvd over the Jupiter and Apollo Waterways. The bridges will be widened to incorporate a five foot sidewalk on the north side, traffic railing replacement and several repair/ rehabilitation items to extend the life span of the bridges.

South Gulf Cove FY24 Bridge Rehabilitations, Charlotte County, Florida: Project Manager and Engineer of Record responsible for the design, plans preparation and specifications for the repair/rehabilitation St. Paul Boulevard over Zephyr Waterway, San Domingo Boulevard over Santa Cruz Waterway and Ingraham Boulevard over Santa Cruz Waterway.The goal of this project is to extend the life span of these bridges by performing targeted repairs such as pile jacket, joint repairs, milling and resurfacing of the bridge asphalt layer.

Englewood East/Gulf Cove MSBU's Bridge Rehabilitations, Charlotte County, Florida: Project Manager and Engineer of Record responsible for the design, plans preparation and specifications for the repair/rehabilitation David Blvd. over Newgate Waterway - Bridge andJennings Blvd. over Lafitte Waterway. The goal of this project is to extend the life span of these bridges by performing targeted repairs such as crack repairs, slope pavement repairs, joint repairs, guardrail repairs. DRMP was able to secure USCG and SWFWMD permit exemptions.

Cape Haze Drive Over Capstan Waterway, Charlotte County, Florida: Project Manager and Engineer of Record responsible for the design, plans preparation and specifications for the repair of this single (1) span bridge with a total length of ± 21.7-feet. The superstructure is comprised of precast concrete arches supported behind bulkhead walls. This bridge provides a 25.3-ft roadway clear width and is not currently load posted. DRMP provided a Bridge Repair Memorandum (BRM) with repair

Leo Rodriguez, PE, Continued

recommendations, Repair Plans, Specifications and Permitting for Charlotte County. Repair scope included spall repairs, slope protection replacement, bridge painting, joint sealing and milling and resurfacing. DRMP was able to secure USCG and SWFWMD permit exemptions.

13th Street/Sands Point Drive Bridge Replacement, Pinellas County, Florida: Project Manager and Structures Engineer of Record responsible for the replacement of the existing 13th Street/Sands Point Drive bridge over Pine Key Cutoff Canal in Tierra Verde. The proposed roadway typical section for the 13th Street bridge includes two 12-foot travel lanes, two 6-foot (minimum) buffered bicycle lanes and sidewalk on both sides of the roadway. This bridge serves as the only access to Pine Key community and will require phased construction. Services being provided include bridge design, roadway analysis and plans, drainage, utility coordination, utility design, geotechnical, survey, public involvement and post-design services. Permitting was also required from Pinellas County, the Southwest Florida Water Management District (SWFWMD), the US Army Corps of Engineers (USACE) and the Florida Department of Environmental Protection (FDEP).

Shore Drive Bridge Replacement, Pinellas County, Florida: Project Manager and Engineer of Record responsible for the replacement of Shore Drive over Booker Creek. The new bridge that replace the existing structurally deficient and functionally obsolete arched bridge. The project will provide 0.25 miles of sidewalks to connect portion of the Ozona community to the Fred Marquis Pinellas Trail. The replacement structure is anticipated to be a simple span Florida Slab Beam (FSB) bridge with deep foundations at the end bents. The existing bridge will be removed and replaced in a highly constrained work zone within an established neighborhood.

Tom Adams Bridge over ICWW, Charlotte County, Florida: Structures Engineer responsible for structural design and plan development of a new four-story control house. Additional responsibilities included project engineering, coordination with different specialties and writing technical specifications. Post design services included responding to requests for information and requests for modification, reviewing and approving shop drawings, development of plan revisions and monthly progress reports for invoicing. Project included preparation of architectural, structural, mechanical and electrical plans to repair/rehabilitate this Hopkins trunnion twin double-leaf bascule span bridge. The rehabilitation included hydraulic machinery repairs, electrical system upgrades and complete relocation and replacement of the control house.

SR 31 Improvements from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) PD&E Study, Lee County, Florida: Structures Engineer for this project where DRMP conducted a PD&E Study for FDOT District One in accordance with the NEPA to evaluate capacity, operational, structural, and modal improvements to about 1.4 miles SR 31 in northeastern Lee County. DRMP served as the prime consultant, coordinating all planning and preliminary engineering activities and oversaw subconsultant activities, including public involvement, traffic analyses, and cultural resource investigations. The project will address future travel demand, resolve bridge mechanical malfunctions and design deficiencies, enhance regional connectivity, and improve emergency evacuation and response times. The study included the evaluation of capacity improvements, pedestrian and bicycle accommodations, repair/rehabilitation and replacement options for the existing bascule Wilson Pigott Bridge over the Caloosahatchee River, and alternatives for the SR 31/SR 80 intersection. As a result of the study, the existing two-lane undivided roadway will be widened to a six-lane divided roadway from SR 80 to SR 78. The Wilson Pigott Bridge will be replaced with a high-level fixed bridge, minimizing impacts to a Florida Gas Transmission line, the nearby Sweetwater Marina, and natural resources. Additionally, the SR 31/SR 80 intersection will be reconfigured to a grade-separated intersection with two flyover bridges for SR 31 and SR 80. Section 106 and Section 4(f) resources included the National Register-eligible Caloosahatchee River Canal, Great Calusa Blueway, and the Caloosahatchee Trail. The State Historic Preservation Officer (SHPO) determined no adverse effects on the Canal and that it would remain eligible for inclusion in the National Register due to its importance to drainage in the Everglades. Although the Canal qualified for protection under Section 4(f) because of its eligibility for the National Register, the project met the requirements for a temporary occupancy exception and the resource was determined to be exempt. The Trail was also deemed exempt based on regulatory qualifications and the determination for the Blueway was "no use". A sociocultural evaluation was completed to identify potential community impacts and to assess potential effects on land use, aesthetics, economic resources, mobility, and farmland. The project included an Alternatives Public Workshop and a formal Public Hearing to gather feedback and to aid in identifying the Preferred Alternative. DRMP recently completed a Type II Categorical Exclusion (CE) and Preliminary Engineering Report (PER).

AMANDA WOODS, PE

Vice President-In-Charge

27 Years of Experience | **27** Years at DRMP

Experience Summary

Amanda E. Woods, PE, serves as a Vice President and the Director of Transportation for DRMP's Transportation Market Sector. She has been involved in all phases of design, from preliminary engineering to the final design of highway-related structures for conventional and design-build projects. Ms. Woods has been responsible for the preparations of preliminary and final design calculations and plans production on many single and multiple bridge projects involving rehabilitation, bridge widening, bridge replacement, new bridges, and bridge mounted sign design as well as load rating, shop drawing review and proposal preparation.

Professional Registrations
Professional Engineer
No. 58816, Florida, 2002
No. 33631, Mississippi, 2023

Education
Bachelor of Science in Civil Engineering, University of Central Florida, 1996

Professional Affiliation
American Society of Civil Engineers (ASCE)
Florida Engineering Society (FES)
Florida Engineering Leadership Institute (FELI), Class of 2016
Women's Transportation Seminar (WTS)

Relevant Project Experience

CR 241 over Olustee Creek – Bridge Replacement, FDOT District Two, Columbia County, Florida: Deputy Project Manager responsible for finalizing the PD&E study and completing final design of this $3.7 million bridge replacement project. The facility is a 2-lane rural arterial with two, 12-foot wide travel lanes with 8-foot wide unpaved outside shoulders. The roadway was reconstructed in the vicinity of the proposed bridge in order to raise the profile to provide additional vertical clearance over the creek for the scour critical bridge. The project also included right-of-way acquisition and plans for a detour route during construction of the bridge. She also served as the Engineer of Record for the bridge replacement which consisted of a four-span 372-foot Florida-I Beam structure over Olustee Creek with sloped abutments protected by riprap and MSE walls at each end bent. The typical section of the bridge consisted of two 12-foot lanes, two 8-foot shoulders and traffic railing for an overall out-to-out of 43-foot 1-inch.

CR 456 (Gulf Boulevard) over Lewis Pass – PD&E Study and Bridge Replacement, FDOT District Two, Levy County, Florida: Deputy Project Manager responsible for the PD&E study of this $2.3 million bridge replacement project. Responsibilities during the PD&E phase included identifying and investigating project issues and designing approved concepts from prior studies, identifying bridge repair alternatives for feasibility and establishing replacement alternatives and alignments to be analyzed and documented in the PD&E study. Also served as Structures Quality Reviewer for the final design of the bridge replacement project. The project is a 2-lane rural roadway with two 10-foot wide travel lanes. The replacement bridge consisted of a three span flat slab bridge 70 feet in length with a typical section of two 10-foot lanes, 3-foot outside shoulders with a 6-foot sidewalk and traffic railing on each side of the bridge. A temporary ACROW bridge was constructed to provide maintenance of traffic while the existing structure was replaced. Tidal influences played a critical role in design of the structure and determination of the superstructure type and vertical clearance of the bridge. This project included public meeting coordination, Coast Guard coordination, environmental permitting, right-of-way acquisition, utility relocation, roadway, drainage, coastal hydraulics, geotechnical and structures design.

PAVAN
PAIAVULA, PE
Roadway Engineer

19 Years of Experience | **19** Years at DRMP

Experience Summary

Pavan Paiavula, PE, serves as the Tampa Roadway Group Leader and a Project Manager for DRMP's Transportation Market Sector. Mr. Paiavula manages the roadway team, business development, and leads production efforts for projects ranging from simple to complex roadway designs, pedestrian/ADA safety improvements, signing and pavement markings, drainage and utility relocation. Mr. Paiavula has extensive experience with both FDOT and municipalities, where he has gained extensive knowledge of FDOT's policies, criteria, specifications, and design standards; in addition to, utility coordination and maintenance of traffic procedures.

Professional Registration
Professional Engineer
No. 73589, Florida, 2011

Education
Master of Science in Civil Engineering, University of Alabama in Huntsville, 2005
Bachelor of Science in Civil Engineering, Regional Engineering College, India, 2002
Florida Engineering Leadership Institute (FELI) Graduate, 2024

Certification
FDOT Advanced Maintenance of Traffic
No. 77246

Software Aptitude
AutoCAD Civil 3D
AutoTURN
GEOPAK
MicroStation
MS Project Schedule
OpenRoads Designer (ORD)

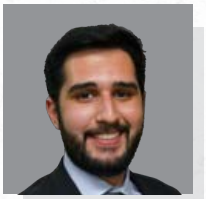
Professional Affiliation
American Society of Highway Engineers (ASHE), Tampa Bay Chapter, Regional Director
Florida Engineering Society (FES), Pinellas Chapter, Vice President 2024 - 2025

Relevant Project Experience

Port Sutton Road Bridge Replacements, Hillsborough County, Florida: Lead Roadway Engineer for the replacement of two bridges over the TECO Gannon Station Discharge Flumes, numbers 1 and 2. Professional services include a preliminary engineering report, bridge design, roadway design, bridge hydraulics report, geotechnical investigation, environmental permitting, maintenance of traffic, specifications and services during construction.

13th Street/Sands Point Drive Bridge Replacement, Pinellas County, Florida: Roadway Engineer of Record responsible for roadway design for the replacement of the existing 13th Street/Sands Point Drive bridge over Pine Key Cutoff Canal in Tierra Verde. The proposed roadway typical section for the 13th Street bridge includes two 12-foot travel lanes, two 6-foot (minimum) buffered bicycle lanes and sidewalk on both sides of the roadway. This bridge serves as the only access to Pine Key community and will require phased construction. Services being provided include bridge design, roadway analysis and plans, drainage, utility coordination, utility design, geotechnical, survey, public involvement and post-design services. Permitting was also required from Pinellas County, the Southwest Florida Water Management District(SWFWMD), the US Army Corps of Engineers (USACE) and the Florida Department of Environmental Protection (FDEP).

Northwest Port Charlotte MSBU Bridge Rehabilitations, Charlotte County, Florida: Roadway Engineer of Record responsible for the design, plans preparation and specifications for the bridge widening along Chamberlain Blvd over the Jupiter and Apollo Waterways. The bridges will be widened to incorporate a five foot sidewalk on the north side, traffic railing replacement and several repair/ rehabilitation items to extend the life span of the bridges.



CHRISTOPHER PEREZ-BORROTO, PE

Roadway Engineer

5 Years of Experience | **3** Years at DRMP

Experience Summary

Christopher Perez-Borroto, PE, serves as a Roadway Engineer for DRMP's Transportation Market Sector. He is currently responsible for plans production for engineering design projects in addition to aiding in drainage design.

Professional Registration
Professional Engineer
No. 100644, Florida, 2025

Education
Bachelor of Science in Civil Engineering, University of South Florida, 2020
Master of Science in Construction Management, Florida International University, 2022

Software Aptitude
AutoCAD Civil 3D
MicroStation
OpenRoads Designer (ORD)

Relevant Project Experience

13th Street/Sands Point Drive Bridge Replacement, Pinellas County, Florida: Roadway Engineer responsible for plans production for the replacement of the existing 13th Street/Sands Point Drive bridge over Pine Key Cutoff Canal in Tierra Verde. The proposed roadway typical section for the 13th Street bridge includes two 12-foot travel lanes, two 6-foot (minimum) buffered bicycle lanes and sidewalk on both sides of the roadway. This bridge serves as the only access to Pine Key community and will require phased construction. Services being provided include bridge design, roadway analysis and plans, drainage, utility coordination, utility design, geotechnical, survey, public involvement and post-design services. Permitting was also required from Pinellas County, the Southwest Florida Water Management District(SWFWMD), the US Army Corps of Engineers (USACE) and the Florida Department of Environmental Protection (FDEP).

Erie Road Widening (West Segment) 69th Avenue East to Martha Road, Manatee County, Florida: Roadway Engineer responsible for plans production, design layout of project including plan, profile, and cross sections to support the widening of Erie Road from 69th Avenue East to Martha Road. The project corridor is approximately three miles long. The northside of Erie Road is constrained by a Florida Power & Light railroad and Duke Power easement. All widening will be to the south and hold the north right-of-line. Widening will include a 22-foot median with median lighting, four 12-foot lanes, and a multi-use trail on the southside of Erie Road. The existing Erie Road is flush shoulder with drainage going to roadside ditches. The road will be converted from a rural section to an urban curb and gutter with closed drainage. Services provided for the Erie Road widening include pavement design, roadway design, traffic control, reconstruction, new stormwater drainage system, regional stormwater modeling, geotechnical services, signalization, signing/pavement markings, utility design/coordination, survey/SUE, right-of-way acquisition, environmental permitting, public outreach, FDOT coordination, railroad permitting, expert witness, and services supporting construction.

Shore Drive Bridge Replacement, Pinellas County, Florida: Roadway Engineer responsible for the replacement of Shore Drive over Booker Creek. The new bridge that replace the existing structurally deficient and functionally obsolete arched bridge. The project will provide 0.25 miles of sidewalks to connect portion of the Ozona community to the Fred Marquis Pinellas Trail. The existing bridge will be removed and replaced in a highly constrained work zone within an established neighborhood.

Northwest Port Charlotte MSBU Bridge Rehabilitations, Charlotte County, Florida: Roadway Engineer responsible for the design, plans preparation and specifications for the bridge widening along Chamberlain Blvd over the Jupiter and Apollo Waterways. The bridges will be widened to incorporate a five foot sidewalk on the north side, traffic railing replacement and several repair/rehabilitation items to extend the life span of the bridges.

RACHEL SCHMIDT, PWS

Permitting Assistance

10 Years of Experience | **6** Years at DRMP

Experience Summary

Rachel Schmidt, PWS, serves as the Florida Environmental Services Lead for DRMP's Transportation Market Sector. She has extensive experience in Florida conducting wetland delineations, protected species surveys and relocations, state and local permitting and preparing documentation to assist various clients in the project planning, design, and permitting process. Mrs. Schmidt's combined knowledge of the regional ecosystems and the federal, state and local agency permitting brings a solution-oriented approach throughout the duration of a project. Her responsibilities also include wetland assessments, Geographic Information Systems (GIS) mapping and analyses, habitat evaluation, vegetation monitoring, and mitigation planning.

Education
Bachelor of Science in Environmental Science, University of Central Florida, 2014

Certification
Professional Wetland Scientist, No. 3530, Florida, 2022
Authorized Gopher Tortoise Agent No. GTA-17-00059, Florida Fish and Wildlife Conservation Commission
ACF Freshwater Mussel Training Certification, 2017
Wetland Delineation Training Program, US Army Corps of Engineers
Bat Acoustics and Exclusion Training, FDOT

Software Aptitude
ArcGIS Pro

Professional Affiliation
Central Florida Association of Environmental Professionals (CFAEP), Treasurer 2022-2024
Tampa Bay Association of Environmental Professionals (TBAEP), Member

Relevant Project Experience

County Line Road Bridge Replacement, Martin County, Florida: Environmental Scientist for the replacement of County Line Road over north fork Loxahatchee river. The new bridge that will replace the existing structurally deficient and functionally obsolete 6-span sonovoid slab bridge. The replacement bridge includes provisions for bike lanes and sidewalks. The replacement structure is anticipated to be a 3-span Florida Slab Beam (FSB) bridge with deep foundations at the end and intermediate bents.

13th Street Bridge Replacement, Pinellas County, Florida: Environmental Scientist for Pinellas County to prepare contract documents for a bridge replacement project in Tierra Verde. The design featured phased construction to maintain traffic and emergency routes, long-term low maintenance, safer pedestrian and bicycle facilities, traffic safety improvements, minimal environmental impact, and a wider channel opening for better hydraulics. Permitting and agency coordination involved Pinellas County, SWFWMD, USACE, USCG, and FDEP.

Shore Drive Bridge Replacement, Pinellas County Government, Pinellas County, Florida: Senior Environmental Scientist responsible for the environmental studies and state and federal permitting services for the replacement and reconstruction of Shore Drive Bridge. The bridge provides access to local residents and business located along Shore Drive and Ozona Drive and was determined to be insufficient. Mrs. Schmidt is responsible for the environmental resource permitting, report preparation, coordination with state and federal agencies, GIS analysis, wetland delineation and threatened and endangered species surveys including mangrove and seagrass surveys for the bridge replacement and one mile of new sidewalk in Ozona to support the replacement of Shore Drive over Booker Creek.

Northwest Port Charlotte MSBU Bridge Rehabilitations, Charlotte County, Florida: Environmental Scientist responsible for the permitting for the bridge widening along Chamberlain Blvd over the Jupiter and Apollo Waterways. The bridges will be widened to incorporate a five foot sidewalk on the north side, traffic railing replacement and several repair/rehabilitation items to extend the life span of the bridges.

South Gulf Cove FY24 Bridge Rehabilitations, Charlotte County, Florida:Environmental Scientist responsible for the permitting of the repair/rehabilitation St. Paul Boulevard over Zephyr Waterway, San Domingo Boulevard over Santa Cruz Waterway and Ingraham Boulevard over Santa Cruz Waterway. The goal of this project is to extend the life span of these bridges by performing targeted repairs such as pile jacket, joint repairs, milling and resurfacing of the bridge asphalt layer.

Cape Haze Drive Over Capstan Waterway, Charlotte County, Florida: Environmental Scientist responsible for the permitting of the repair of this single (1) span bridge with a total length of ± 21.7-feet. The superstructure is comprised of precast concrete arches supported behind bulkhead walls. This bridge provides a 25.3-ft roadway clear width and is not currently load posted. DRMP provided a Bridge Repair Memorandum (BRM) with repair recommendations, Repair Plans, Specifications and Permitting for Charlotte County. Repair scope included spall repairs, slope protection replacement, bridge painting, joint sealing and milling and resurfacing. DRMP was able to secure USCG and SWFWMD permit exemptions.

Erie Road Widening (East Segment) Martha Road to US 301, Manatee County, Florida: Senior Environmental Scientist responsible for the environmental resource permitting, report preparation, coordination with several agencies including state, federal, and local agencies, GIS analysis, threatened and endangered species surveys to support the widening of Erie Road from Martha Road to US 301. The project corridor is approximately 1.03 miles long. The northside of Erie Road is constrained by a Florida Power & Light railroad and Duke Power easement. All widening will be to the south and hold the north right-of-line. Widening will include a 22-foot median with median lighting, four 12-foot lanes, and a multi-use trail on the southside of Erie Road. The existing Erie Road is flush shoulder with drainage going to roadside ditches. The road will be converted from a rural section to an urban curb and gutter with closed drainage. Services provided for the Erie Road widening include pavement design, roadway design, traffic control, reconstruction, new stormwater drainage system, regional stormwater modeling, geotechnical services, signalization, signing/ pavement markings, utility design/coordination, survey/subsurface utility engineering, right-of-way acquisition, environmental permitting, public outreach, FDOT coordination, railroad permitting, expert witness, and services supporting construction.

SR 31 Improvements from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) PD&E Study, Lee County, Florida: Senior Environmental Scientist responsible for the preparation of the Natural Resources Evaluation Report, agency and stakeholder coordination, technical document review, and preparation of the state, federal, and local permits for this project where DRMP conducted a PD&E Study for FDOT District One in accordance with the NEPA to evaluate capacity, operational, structural, and modal improvements to about 1.4 miles SR 31 in northeastern Lee County. DRMP served as the prime consultant, coordinating all planning and preliminary engineering activities and oversaw subconsultant activities, including public involvement, traffic analyses, and cultural resource investigations. The project will address future travel demand, resolve bridge mechanical malfunctions and design deficiencies, enhance regional connectivity, and improve emergency evacuation and response times. The study included the evaluation of capacity improvements, pedestrian and bicycle accommodations, repair/rehabilitation and replacement options for the existing bascule Wilson Pigott Bridge over the Caloosahatchee River, and alternatives for the SR 31/SR 80 intersection. As a result of the study, the existing two-lane undivided roadway will be widened to a six-lane divided roadway from SR 80 to SR 78. The Wilson Pigott Bridge will be replaced with a high-level fixed bridge, minimizing impacts to a Florida Gas Transmission line, the nearby Sweetwater Marina, and natural resources. Additionally, the SR 31/SR 80 intersection will be reconfigured to a grade-separated intersection with two flyover bridges for SR 31 and SR 80. Section 106 and Section 4(f) resources included the National Register-eligible Caloosahatchee River Canal, Great Calusa Blueway, and the Caloosahatchee Trail. The State Historic Preservation Officer (SHPO) determined no adverse effects on the Canal and that it would remain eligible for inclusion in the National Register due to its importance to drainage in the Everglades. Although the Canal qualified for protection under Section 4(f) because of its eligibility for the National Register, the project met the requirements for a temporary occupancy exception and the resource was determined to be exempt. The Trail was also deemed exempt based on regulatory qualifications and the determination for the Blueway was "no use". A sociocultural evaluation was completed to identify potential community impacts and to assess potential effects on land use, aesthetics, economic resources, mobility, and farmland. The project included an Alternatives Public Workshop and a formal Public Hearing to gather feedback and to aid in identifying the Preferred Alternative. DRMP recently completed a Type II Categorical Exclusion (CE) and Preliminary Engineering Report (PER).

BRADY HART

Permitting Assistance

10 Years of Experience | **4** Years at DRMP

Experience Summary

Brady Hart serves as an Environmental Scientist for DRMP's Transportation Market Sector. His responsibilities include wetland assessments, federal, state and local agency permitting, protected species surveys and relocations, GIS mapping and analyses, land use/cover classification and habitat evaluation, vegetation monitoring and mitigation planning. He also has experience in environmental compliance, erosion control and stormwater pollution prevention.

Education
Bachelor of Science in Geology, Georgia Southern University, 2013

Certification
Authorized Gopher Tortoise Agent, No. GTA-22-00107, Florida Fish & Wildlife Conservation Commission

Software Aptitude
ESRI ArcGIS Pro
ESRI ArcMap
Trimble GeoExplorer 6000
Trimble TDC650 GNSS Handheld

Professional Affiliations
Central Florida Association of Environmental Professionals (CFAEP)

Relevant Project Experience

Shore Drive Bridge Replacement, Pinellas County, Florida: Environmental Scientist responsible for wetland flagging, general wildlife assessments, and permitting for the bridge replacement and one mile of new sidewalk in Ozona to support the replacement of Shore Drive over Booker Creek. The new bridge that replace the existing structurally deficient and functionally obsolete arched bridge. The project will provide 0.25 miles of sidewalks to connect portion of the Ozona community to the Fred Marquis Pinellas Trail. The replacement structure is anticipated to be a simple span Florida Slab Beam (FSB) bridge with deep foundations at the end bents. Project includes bridge hydraulics, sidewalk location study and agency permitting. The existing bridge will be removed and replaced in a highly constrained work zone within an established neighborhood.

County Line Road Bridge Replacement, Martin County, Florida: Environmental Scientist responsible for wetland flagging, general wildlife surveys, mangrove and submerged aquatic vegetation (SAV) surveys, and environmental permitting and coordination with South Florida Water Management District, United States Army Corps of Engineers and the United States Coast Guard for the replacement of County Line Road over north fork Loxahatchee river. The new bridge that will replace the existing structurally deficient and functionally obsolete 6-span sonovoid slab bridge. The replacement bridge includes provisions for bike lanes and sidewalks. The replacement structure is anticipated to be a 3-span Florida Slab Beam (FSB) bridge with deep foundations at the end and intermediate bents. The existing bridge will be removed and replaced in a highly constrained work zone within an established neighborhood.

13th Street Bridge Replacement, Pinellas County, Florida: Environmental Scientist for Pinellas County to prepare contract documents for a bridge replacement project in Tierra Verde. The 13th Street (Sands Point Drive) bridge, serving as the sole access to the mainland for the Sands Point subdivision, required comprehensive services including bridge design, roadway analysis, drainage, utility coordination and design, geotechnical work, survey, public involvement, and post-design services. The design featured phased construction to maintain traffic and emergency routes, long-term low maintenance, safer pedestrian and bicycle facilities, traffic safety improvements, minimal environmental impact, and a wider channel opening for better hydraulics. Permitting and agency coordination involved Pinellas County, SWFWMD, USACE, USCG, and FDEP.

Brady Hart, Continued

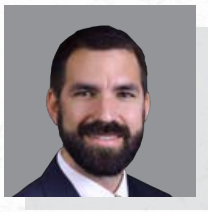
South Gulf Cove FY24 Bridge Rehabilitations, Charlotte County, Florida: Environmental Scientist responsible for the permitting of the repair/rehabilitation St. Paul Boulevard over Zephyr Waterway, San Domingo Boulevard over Santa Cruz Waterway and Ingraham Boulevard over Santa Cruz Waterway. The goal of this project is to extend the life span of these bridges by performing targeted repairs such as pile jacket, joint repairs, milling and resurfacing of the bridge asphalt layer.

Northwest Port Charlotte MSBU Bridge Rehabilitations, Charlotte County, Florida: Environmental Scientist responsible for the permitting for the bridge widening along Chamberlain Blvd over the Jupiter and Apollo Waterways. The bridges will be widened to incorporate a five foot sidewalk on the north side, traffic railing replacement and several repair/rehabilitation items to extend the life span of the bridges.

Englewood East/Gulf Cove MSBU's Bridge Rehabilitations, Charlotte County, Florida: Environmental Scientist responsible for the permitting of the repair/rehabilitation David Blvd. over Newgate Waterway - Bridge and Jennings Blvd. over Lafitte Waterway. The goal of this project is to extend the life span of these bridges by performing targeted repairs such as crack repairs, slope pavement repairs, joint repairs, guardrail repairs. DRMP was able to secure USCG and SWFWMD permit exemptions.

Cape Haze Drive Over Capstan Waterway, Charlotte County, Florida: Environmental Scientist responsible for the permitting of the repair of this single (1) span bridge with a total length of ± 21.7-feet. The superstructure is comprised of precast concrete arches supported behind bulkhead walls. This bridge provides a 25.3-ft roadway clear width and is not currently load posted. DRMP provided a Bridge Repair Memorandum (BRM) with repair recommendations, Repair Plans, Specifications and Permitting for Charlotte County. Repair scope included spall repairs, slope protection replacement, bridge painting, joint sealing and milling and resurfacing. DRMP was able to secure USCG and SWFWMD permit exemptions.

SR 31 Improvements from SR 80 (Palm Beach Boulevard) to SR 78 (Bayshore Road) PD&E Study, Lee County, Florida: Environmental Scientist responsible for wetland flagging and general wildlife assessments of design alternatives for this project where DRMP conducted a PD&E Study for FDOT District One in accordance with the NEPA to evaluate capacity, operational, structural, and modal improvements to about 1.4 miles SR 31 in northeastern Lee County. DRMP served as the prime consultant, coordinating all planning and preliminary engineering activities and oversaw subconsultant activities, including public involvement, traffic analyses, and cultural resource investigations. The project will address future travel demand, resolve bridge mechanical malfunctions and design deficiencies, enhance regional connectivity, and improve emergency evacuation and response times. The study included the evaluation of capacity improvements, pedestrian and bicycle accommodations, repair/rehabilitation and replacement options for the existing bascule Wilson Pigott Bridge over the Caloosahatchee River, and alternatives for the SR 31/SR 80 intersection. As a result of the study, the existing two-lane undivided roadway will be widened to a six-lane divided roadway from SR 80 to SR 78. The Wilson Pigott Bridge will be replaced with a high-level fixed bridge, minimizing impacts to a Florida Gas Transmission line, the nearby Sweetwater Marina, and natural resources. Additionally, the SR 31/SR 80 intersection will be reconfigured to a grade-separated intersection with two flyover bridges for SR 31 and SR 80. Section 106 and Section 4(f) resources included the National Register-eligible Caloosahatchee River Canal, Great Calusa Blueway, and the Caloosahatchee Trail. The State Historic Preservation Officer (SHPO) determined no adverse effects on the Canal and that it would remain eligible for inclusion in the National Register due to its importance to drainage in the Everglades. Although the Canal qualified for protection under Section 4(f) because of its eligibility for the National Register, the project met the requirements for a temporary occupancy exception and the resource was determined to be exempt. The Trail was also deemed exempt based on regulatory qualifications and the determination for the Blueway was "no use". A sociocultural evaluation was completed to identify potential community impacts and to assess potential effects on land use, aesthetics, economic resources, mobility, and farmland. The project included an Alternatives Public Workshop and a formal Public Hearing to gather feedback and to aid in identifying the Preferred Alternative. DRMP recently completed a Type II Categorical Exclusion (CE) and Preliminary Engineering Report (PER).



CHRISTOPHER **WILD, PSM**

Survey & Mapping/SUE/Right-of-Way Mapping

19 Years of Experience | **18** Years at DRMP

Experience Summary

Christopher Wild, PSM, serves as a Vice President and the Tampa Survey Department Manager for DRMP's Survey and Mapping/Geospatial Market Sector. He serves as a Project Manager for surveying and mapping projects specializing in design surveys, control surveys, terrestrial LiDAR, topographic and boundary surveys, plats, legal descriptions and right-of-way mapping. His responsibilities include contract administration and project coordination, technical oversight and professional development of staff, budget and schedule coordination and quality assurance/quality control of survey deliverables.

When serving in a leadership role, Mr. Wild enacts a proactive approach to the management of both the field and office aspects of project delivery. His other focus while leading projects is maintaining an open line of communication not only with his staff and subconsultants but serving as a single point of contact to clients, keeping them abreast of a project's status. Mr. Wild has employed this leadership style on continuing contract projects as well as major transportation projects.

Professional Registration
Professional Surveyor and Mapper No. 6893, Florida, 2012

Education
Bachelor of Science in Geomatics, University of Florida, 2007

Certification
FDOT Maintenance of Traffic
OSHA 1910.146 Permitted Confined Space
CPR/First Aid
CSX Roadway Worker Protection
E-RAILSAFE
IdenTrust Digital Certificate

Software Aptitude
ArcGIS
AutoCAD Civil 3D
Electronic Field Book Processing
GEOPAK
MicroStation
OpenRoads Designer
TopoDOT
Trimble Business Center

Professional Affiliation
Florida Surveying and Mapping, Tampa Bay Chapter, (President, 2016-2018), (Secretary, 2013-2015)
National Society of Professional Surveyors (NSPS)
American Society of Civil Engineers (ASCE)

Relevant Project Experience

SR 10 (US 90) over Yellow River Bridge Replacement, Santa Rosa County, Florida: Survey Technician responsible for specific-purpose survey for sovereign submerged lands easement (TIITF Easement) for design of the replacement of the existing 1,617-foot-long bridge over the Yellow River. Included medium spans to accommodate difficult construction access. Challenges included scour, constructability issues with shallow water depths, environmental constraints and existing remnant pile removal.

I-75 (SR 93) from Collier County Line to Gator Crossing Canal Bridge, FDOT District One, Lee County, Florida: Project Surveyor responsible for the design survey to support the milling and resurfacing of this 13.8-mile, 6-lane facility extending from Collier County Line to Gator Crossing Canal Bridge on 1-75 (SR 93). The work includes milling and resurfacing the emergency median crossovers, existing frontage roads, ramps, shoulders, northbound and southbound lanes of I-75. It also includes bringing the existing Traffic Monitoring Systems into compliance as well as guardrail relocation/ replacement and shoulder gutter replacement. Terrestrial Mobile LiDAR was used to safely collect roadway features and pavement data, including detailed pavement cross-slope data. Obscured areas were located using RTK GPS and merged with the extracted LiDAR data to provide a seamless digital terrain model of the corridor. Overall project includes bridge inspection, load rating, traffic related

Christopher Wild, PSM, Continued

structures design, 3D Laser scanning, subsurface utility engineering, topographic, wetland delineation, resurfacing, restoration and rehabilitation, ATMS, intelligent transportation systems, lighting, maintenance of traffic, pavement design, signing and pavement marking, public involvement, utility coordination and a 3D model completed in OpenRoads Designer (ORD).

Shore Drive Bridge Replacement, Pinellas County, Florida: Project Surveyor the bridge replacement and one mile of new sidewalk in Ozona to support the replacement of Shore Drive over Booker Creek. The new bridge replaces the existing structurally deficient and functionally obsolete arched bridge. The project will provide 0.25 miles of sidewalks to connect portion of the Ozona community to the Fred Marquis Pinellas Trail. The replacement structure is anticipated to be a simple span Florida Slab Beam (FSB) bridge with deep foundations at the end bents. Project includes bridge hydraulics, sidewalk location study and agency permitting.

Northwest Port Charlotte MSBU Bridge Rehabilitations, Charlotte County, Florida: Project Surveyor responsible for the design, plans preparation and specifications for the bridge widening along Chamberlain Blvd over the Jupiter and Apollo Waterways. The bridges will be widened to incorporate a five foot sidewalk on the north side, traffic railing replacement and several repair/rehabilitation items to extend the life span of the bridges.

SR 600, FDOT District Five, Volusia County, Florida: Project Surveyor for surveying and mapping services for widening of SR 600 for from east of the I-4 ramp area to Tomoka Farms Road. Performed mapping for right-of-way control survey and right-of-way maps. The design survey included horizontal and vertical control, aerial targets for low altitude mapping photography (LAMP), drainage survey, jurisdictional line survey, sectional/grant survey, property line and parent tract boundary. The project was widened from 4-lanes to 6-lanes for project length of 2.2 miles. [Client: TranSystems Corporation]

I-75 at SR 64 Interchange, FDOT District One, Manatee County, Florida: Project Surveyor for design and subsurface utility engineering tasks for the reconstruction of the I-75/SR 64 Interchange. The design survey included vertical control, aerial targets for LAMP, subsurface utility engineering designating and locating, drainage survey, bridge survey of two bridges and jurisdictional line survey. [Client: Transystems Corporation]

SR 589 (Suncoast Parkway 2) from US 98 to South of W. Grover Cleveland Boulevard (MP 54.7-63.3), Florida's Turnpike Enterprise, Hernando and Citrus Counties, Florida: Survey Manager for a 100 acre boundary survey to support the transfer of state-owned lands from the Florida Department of Transportation to the Florida Department of Environmental Protection for environmental mitigation purposes for this new 4-lane limited access all-electronic toll facility. Included Bridge Development Reports, structural calculations and plans production for five sites along SR 589 and one pedestrian bridge site over US 98 all using Florida-I Beams. Three of the sites consist of twin overpass structures along SR 589. One site consists of a 2-span structure over SR 589 with aesthetic piers. The final site consists of twin bridges over a Wildlife Crossing. All sites include the design of MSE retaining walls. Plans included the design of roadway, drainage, signing and pavement markings, structures, lighting, signals, intelligent transportation systems, environmental permitting and surveying.

I-175/SR 594 Concrete Rehabilitation, FDOT District Seven, Pinellas County, Florida: Project Surveyor responsible for the design survey to support this concrete rehabilitation project on I-175 from E. 16th Street South to 4th Street South in the City of St. Petersburg, Florida. The concrete rehabilitation improvements will include rigid pavement rehabilitation for concrete pavement slabs of the existing mainline and ramps with milling and resurfacing of the asphalt portions of the mainline roadway, shoulders and ramp lanes. Terrestrial Mobile LiDAR was used to safely collect roadway features and detailed pavement data, including concrete slab joints and major cracks while minimizing the need for design staff to conduct site visits to analyze the slabs. In addition, high-resolution photos were obtained with the LiDAR data to provide georeferenced imagery that was tied to the survey data.

DAVID JOHNSON, PE

Structural Engineering

14 Years of Experience | **2** Years at DRMP

Experience Summary

David Johnson, PE serves as a Structures Senior Engineer for DRMP's Transportation Market Sector. He has 14 years of structural design and project management experience, including bridge replacements, bridge repairs, seawalls, traffic signal mast arms, span wires, piers, boardwalks, and vertical structures. He has extensive technical knowledge in scour evaluation for unknown foundation bridges, scour countermeasure design, and finite element analysis on dual cable span wire structures. His experience also includes bridge inspections, fracture critical inspections, and emergency response events.

Relevant Project Experience

South Gulf Cove Bridges, Charlotte County, Florida: Structural Engineer responsible for design of minor bridge repairs for the repair/rehabilitation of St. Paul Boulevard over Zephyr Waterway, San Domingo Boulevard over Santa Cruz Waterway, and Ingraham Boulevard over Santa Cruz Waterway. The goal of this project is to extend the life span of these bridges by performing targeted repairs such as pile jacket, joint repairs, milling and resurfacing of the bridge asphalt layer. Scope includes site visits for both structures, preparation of engineering evaluation memo, construction plans, technical specifications, and post design support. Design repairs include pile jackets, reflective deck crack repairs, spall repairs, anti-graffiti coating, expansion joint replacement, mill and resurface bridge asphaltic concrete overlay, approach guardrail repairs, and concrete slope protection repairs.

Chamberlain Boulevard Bridge and Utility Design, Charlotte County, Florida: Structural Engineer responsible for the design of minor bridge repairs, railing upgrades, and bridge widenings to support the concrete rehabilitation of bridge sites Nos. 014044 and 014045 over Jupiter and Apollo creek waterways. The rehabilitated bridge sites will replace the existing structurally deficient and functionally obsolete bridges. Both bridge sites will include a new sidewalk and adjusted traffic rails along the bridge corridor to allow for safer pedestrian walkways across each bridge structure. The existing bridge will be widened by 4 feet to include a sidewalk along the north side of the bridge. The existing superstructure consists of prestressed concrete hollowcore slab units. The widened section is designed as a cast-in-place

Professional Registrations
Professional Engineer
No. 79354, Florida, 2015
No. 44844, Wisconsin, 2016
No. 91761, Oregon, 2017

Education
Master of Science in Structural Engineering, University of Wisconsin, 2011
Bachelor of Science in Civil and Environmental Engineering, University of Wisconsin, 2009

Certifications
Advanced Project Management Training, 2021
Lift Truck Training
NHI Fracture Critical Inspection Techniques for Steel Bridges

Software Aptitude
Bluebeam Revu
FB-MultiPier
GTSTRUDL
LEAP Bridge Enterprise
Mathcad
MDX
MicroStation
OpenBridge Modeler
OpenRoads Designer (ORD)
RISA 2D/3D
Shoring8
SPW911
STAAD

Professional Affiliation
American Council of Engineering Companies (ACEC), Transportation Structures Committee Member
American Society of Civil Engineers (ASCE)

David Johnson, PE, Continued

reinforced concrete beam to resist pedestrian loading and future vehicle loading. To minimize demolition efforts and need for additional piles, bent cap extensions are designed with a steel plate connection utilizing undercut anchors and threaded dowels. This connection allows for full transfer of shear and flexural forces for the proposed bent cap overhang. Existing metal railings will be replaced with 42-inch ornamental concrete railings on both sides of the bridge. Design repairs include pile jackets, crack and spall repairs, expansion joint replacement, mill and resurface bridge asphaltic concrete overlay, minor railing, and structural supports for 12-inch watermain attached to bridge.

Englewood East/Gulf Cove MSBU Bridges, Charlotte County, Florida: Structural Engineer responsible for designing minor bridge repairs of two existing bridges for Charlotte County. Scope included site visits for both structures, preparation of engineering evaluation memo, construction plans, technical specifications, and post design support. Design repairs include crack and spall repairs, anti-graffiti coating, expansion joint replacement, mill and resurface bridge asphaltic concrete overlay, minor railing and approach guardrail repairs, and drainage flumes for the repair/rehabilitation of David Boulevard over Newgate Waterway Bridge and Jennings Boulevard over Lafitte Waterway. The goal of this project is to extend the life span of these bridges by performing targeted repairs such as crack repairs, slope pavement repairs, joint repairs, guardrail repairs. DRMP was able to secure USCG and SWFWMD permit exemptions.

S-155 Fender System Rehab Design, Southwest Florida Water Management District, Hernando County, Florida: Structures Engineer responsible for the design replacement of existing timber fender system at Structure No. S-155 along the Hillsborough River for Southwest Florida Water Management District (SWFWMD). This structure is located within the Lower Hillsborough Flood Detention Area which includes water control structures such as S-155 to divert flood waters to the Tampa Bypass Canal. The fender replacement is designed to resist glancing blows of small, recreational vessels. The proposed fender utilizes 14-inch prestressed concrete piles and FRP composite lumber for the wales. The fender system will be anchored to the existing bridge concrete abutments. The new fender system will be built on the same alignment, and it is not expected to reduce horizontal clearances. The new fender materials shall be optional in the form of timber or Fiber Reinforced Polymer (FRP) with stainless steel connections, and concrete or timber piles (depending on final budget). The fender system to be replaced serves structure S-155, operated by SWFWMD, andlocated on the Hillsborough River along the L-112 alignment, approximately 700 feet upstream of I-75 at river mile 25.7. Other components for this project included geotechnical investigation to obtain structural design parameters for the new fender system.

General Engineering Support Services, Hillsborough County, Florida: Deputy Project Manager responsible for bridge rehabilitation design and site visits for this three-year, TWO-based continuing contract. DRMP assists the County with managing their bridge inventory by providing a variety of consultant services. The county will assign bridge repair and rehabilitation projects as well as bridge replacement studies, bridge inspections and emergency response. DRMP will provide structural design and analysis as well as roadway, maintenance of traffic, design, hydraulic/scour analysis, and environmental/permitting services.

Safety Harbor Marina Basin – Dock Replacement, City of Safety Harbor, Pinellas County, Florida: Structures Engineer responsible for the bridge design and steel sheet pile wall design to support professional civil engineering services for the replacement of the existing marina located within Veterans Memorial Marina Park in the City of Safety Harbor. The existing marina, constructed around 2006, comprises timber walkways and docks with 44 slips. The project scope encompasses conducting a topographic survey to provide essential survey data and CADD files, performing structural and civil design for a timber marina replacement, considering alternatives for decking materials, and coordinating with utility companies to avoid conflicts with existing utilities. The environmental permitting aspect involves delineating wetlands and surface waters, assessing potential protected species, and preparing permit applications for regulatory agencies. This project aims to replace the marina while adhering to structural integrity and environmental compliance within the existing footprint.

LARRY P. MOORE, P.E.

Principal Geotechnical Engineer

TIERRA GEOTECHNICAL • MATERIALS ENVIRONMENTAL • ENGINEERING

Summary of Capabilities
Roadway, Corridor and Bridge Studies
Geotechnical Engineering
Project Management
Deep Foundation Evaluation
Embankment Design
Construction Monitoring
Land Subsidence Investigations
Mine Tailings and Dredge Material Disposal
Planning

Years of Experience
With Tierra: 17 Years
With Other Firms: 18 Years

Education
BS, Civil Engineering, University of South Florida, 1987

Professional Organizations/Registrations
Florida Professional Engineer, No. 47673
American Society of Highway Engineers

Mr. Moore has been the Project Manager for numerous roadway soil surveys and bridge foundation designs and construction projects. He has managed test and production pile and drilled shaft installations involving timber, steel and prestressed concrete piles and drilled shafts for numerous bridge foundations and industry and building construction applications.

Mr. Moore has managed geotechnical services for districtwide bridge scour evaluation contracts for FDOT Districts I, VII and Florida's Turnpike Enterprise. As part of managing the geotechnical services for scour evaluation studies, Mr. Moore has managed geotechnical activities including the following tasks: review of bridge inspection reports, review of bridge plans and pile driving records, coordination with structural and bridge hydraulics engineers, completion of field explorations, field testing and sampling, completion of laboratory testing to provide input to the scour analyses, completion of sonic/PIT testing to estimate pile lengths for unknown bridge foundations, completion of pile capacity analyses (lateral and axial) and preparation of geotechnical reports and recommendations.

Mr. Moore managed the test pile program for the 15-mile Florida's Turnpike Veterans Expressway in Tampa/Hillsborough County, Florida. His duties included managing the Pile Dynamic Testing with the Pile Driving Analyzer (PDA) and determination of production pile lengths and driving criteria for more than 50 bridge structures. The project was constructed in seven sections involving separate contracts and several contractors. Various pile types were used within the bridge foundations including steel pipe and H-piles and 18 and 24-inch prestressed concrete (PSC) piles. Mr. Moore completed initial review of the Contractor's hammer systems utilizing Wave Equation (WEAP) analyses and Florida Department of Transportation (FDOT) guidelines. Hammer systems ranged from open-ended diesel hammers to hydraulic and air hammer systems. Instrumentation used to monitor the Expressway pile installation included Pile Integrity (PIT) testing, Hammer Performance Analyzer (HPA) testing and testing with the PDA. Subsurface conditions were often extremely variable requiring variable pile lengths and driving criteria within individual bridge locations.

He managed the geotechnical design and test load programs for both the Ringling Causeway Bridge in Sarasota and the Ernest Lyons Bridge in Stuart. Both of these bridges cross Florida's Intracoastal Waterway. The Ringling Bridge is founded on nine-foot diameter drilled shafts socketed into the underlying limestone; while the Ernest Lyons bridge was founded on driven 24-inch prestressed concrete piles. These two bridges satisfy the FDOT Structures Design Category 2 bridge project requirements.

PROJECT EXPERIENCE INCLUDING GEOTECHNICAL EVALUATIONS FOR BRIDGE DESIGN AND/OR CONSTRUCTION
FDOT Districtwide Scour Evaluation for Bridges with Unknown Foundations Contracts – Districts I, VII and Turnpike Enterprise
FDOT Districtwide Geotechnical Contracts – Districts I, II, V and VII

FDOT District I
Green Bridge over the Manatee River Non-Destructive Testing, Manatee County
SR 90 (US 41) Bridge Unknown Foundation Evaluations, Collier County
John Ringling Boulevard Causeway and Bridge Replacement *Design/Build*, Sarasota County
Marco Island Bridge, Collier County

Florida's Turnpike Enterprise
Veterans Expressway-Pile Dynamic Testing with the Pile Driving Analyzer (PDA) and determination of production pile lengths and driving criteria for in excess of 50 bridge structures, Hillsborough County
North System Scour and Evaluation and Bridge Inspection, Various Counties in Florida
Suncoast Parkway Design, Sections 1, 2, 3, 4 & 6, Pasco and Hernando Counties
Suncoast Parkway 2 Design, from US 98 to US 19/98, Hernando and Citrus Counties

Thomas E. Musgrave, P.E.

Geotechnical Engineer

TIERRA GEOTECHNICAL • MATERIALS ENVIRONMENTAL • ENGINEERING

Summary of Capabilities
Geotechnical Engineering
Structural Engineering
Structural Damage Evaluations
Structural and Geotechnical Analysis
Project Management
Numerical Modeling of Soft Soil Embankments
Numerical Modeling of Soil-Structure Interaction

Years of Experience
With Tierra: 12 Years
With Other Firms: 1 Year

Education
B.S., Civil Engineering, University of South Florida, 2011

Professional Organizations/Registrations/Awards
Florida Professional Engineer, License No. 81669
American Society of Civil Engineers

Mr. Musgrave has worked in the field of Structural and Geotechnical Engineering for more than 11 years, starting as an intern and gaining experience in structural damage assessment, structural analysis, ground subsidence, water intrusion, roof inspection, cause and origin forensic investigation, and soils and materials testing. His experience includes working on structural forensic investigations as well as FDOT roadway projects, subsidence investigations, structural bridge analysis, pavement evaluation, MSE wall analysis, corrosion testing and research. He has performed FDOT projects for Districts I, V, VII and the Florida's Turnpike Enterprise. Mr. Musgrave also has extensive experience in structural testing including GPR evaluation of concrete and steel reinforcement.

FDOT PROJECT EXPERIENCE

District I
Districtwide Scour Evaluation for Bridges with Unknown Foundations Contract
Districtwide Bridge Engineering Contract
Green Bridge over the Manatee River Non-Destructive Testing, Manatee County
US 98 over Lorida Creek Bridge Repair, Highlands County
SR 90 (US 41) Bridge Unknown Foundations Evaluations, Collier County
Estero Parkway over I-75 Bridge Inspection, Lee County
Pine Island Road Causeway and Bridge Replacement, Emergency Repair, Lee County
McGregor Boulevard / Sanibel Causeway (CR 867) Emergency Repairs, Lee County
SR 31 from SR 78 to Cook Brown Road, Lee and Charlotte Counties
Harborview Road from Melbourne Road to I-75, Charlotte County
I-75 (SR 93) at CR 876 / SR 876 / Daniels Parkway, Lee County
SR 25 (US 27) from Shoreline Drive to Davis Gaines Road, Highlands County
I-75 (SR 93) at US 301 Interchange Design/Build, Manatee County
SR 35 (US 98) from North of West Socrum Loop Road to South of CR 54, Polk County
I-75 (SR 93) Widening from SR 951 to North of Golden Gate Parkway, Collier County
SR 29 from SR 82 to Hendry County Line, Collier County
I-75 (SR 93) Widening over the Manatee River from US 301 to SR 64, Manatee County
I-75 (SR 93) Widening at SR 70 Interchange, Manatee County
I-75 (SR 93) at SR 72 (Clark Road), Sarasota County

Florida's Turnpike Enterprise
Geotechnical and Survey Design Support Districtwide Contract
Resurface and Safety Improvements at Turnpike Mainline, MP 169.3 to 173 and MP 173 to 178.3, St. Lucie and Indian River Counties
SR 91 (Florida's Turnpike) Improvements for Bridge Approach Slabs, Palm Beach County

District VII
Districtwide Scour Evaluation for Bridges with Unknown Foundations Contract

Mark Gosselin, PhD, PE

Vice President of Coastal Engineering – Gainesville, FL Office

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS

Years of Experience: 35

Education:

- PhD, 1997, Coastal and Oceanographic Engineering, University of Florida
- MS, 1992, Naval Architecture and Offshore Structures, University of California at Berkley

Professional Registrations/Affiliations:

- Professional Engineer (Civil), FL, 1999, No. 54594
- Professional Engineer (Civil), LA, 2006, No. 32466
- Member, Florida Engineering Society
- Member, Florida Institute of Consulting Engineers Transportation Committee
- Member, Florida Coastal Hydraulics Council
- Member, American Shore and Beach Preservation Association

Professional History:

2013 – Present	Vice President of Coastal Engineering – INTERA Incorporated, Gainesville, FL
2002 – 2013	Vice President – Ocean Engineering Associates, Inc., Gainesville, FL
1997 – 2002	Chief Engineer – Taylor Engineering, Jacksonville, FL

Mark Gosselin has nearly three decades of experience in coastal processes, nearshore and open channel hydrodynamics, and sediment transport. Dr. Gosselin has served as project manager on hundreds of scour and hydraulics assessments of bridges and coastal structures throughout the country and has served as project manager on numerous coastal engineering studies that have involved wave, hurricane storm surge, riverine flooding, and dam break hydraulic modeling. His experience covers the southeastern U.S., Virginia, Washington, and Puerto Rico, and clients such as state departments of transportations, the Federal Highway Administration, U.S. Army Corps of Engineers districts, the Federal Emergency Management Agency (FEMA), and NASA. He has applied SWAN+ADCIRC, RMA2, FESWMS, AdH, HEC-RAS and other analytical techniques to support Dr Gosselin has authored design guidelines at both the state and federal level for clients including NCHRP, FDOT, SCDOT, and NCDOT.

Project Experience

Hydraulic and Scour Analysis for the Periwinkle Way Bridge over Joey Canal, City of Sanibel, Lee County, FL. 2024 - Present. *QC Reviewer.* This project involved developing the bridge hydraulic report (BHR) for the replacement of the Periwinkle Bridge over Joey Canal in Sanibel, Lee County, FL. Work involved construction of an ADCIRC model to simulate the 50-, 100, and 500-year storm surge events based on Hurricane Ian (2022), and calculation of scour depths based on Florida Department of Transportation (FDOT) and HEC-18 methodologies. Responsibilities included quality review of all work and the final submittal.

Pine Island Roadway – Permanent Repairs, Florida Department of Transportation - District 1, Lee County, FL. 2023. *Project Manager and Engineer of Record*. As part of the team tasked with the emergency design to repair damage from Hurricane Ian, INTERA was assigned with developing the hydraulic and coastal engineering support. Analysis required hindcasting Hurricane Ian to develop the associated hydraulics and waves conditions and applying those conditions to assist in the design. Work included hydraulic design for both the causeway which had been breached during the storm and the Pine Island Road over Little Pine Island Pass Bridge.

Sanibel Causeway Bridge, Lee County, Emergency Procurement, Florida Department of Transportation – District 1, Lee County, FL. 2022-2023. *Project Manager.* Project manager for the emergency and permanent repair project to address the damage done to the Sanibel Island Causeway corridor during the landfall of Hurricane Ian. Project involved forensic investigation into the mechanisms causing the failure, hindcasting Hurricane Ian, and developing the design of the protection for the seawalls and roadway throughout the project.

I-275 at Sunshine Skyway Seawall Phase II – Wave Attenuation Device Design-Build, Florida Department of Transportation - District 1, Manatee County, FL. 2022 - Present. *Quality Control Reviewer.* Project includes design, permitting, and construction of two breakwaters located approximately 200 feet offshore the south Skyway fishing pier access road. The breakwaters intend to limit wave energy reaching the recently repaired seawall and fishing pier access road and provide an area for seagrasses to grow behind the breakwater as future environmental impact mitigation. Reviewed all technical work associated with the design and final documentation.

Stan Gober Bridge over Marco Channel, Collier County, FL. 2021. *QC Reviewer.* The project involved development of the scour countermeasures design for several of the interior bents, armor stone size calculation based on HEC-23 methodologies and documentation.

Huseyin Demir, PhD, PE

Senior Engineer – Gainesville, FL Office

INTERA GEOSCIENCE & ENGINEERING SOLUTIONS

Years of Experience: 25

Education:

- PhD, 2007, Civil and Environmental Engineering, Georgia Institute of Technology
- MS, 2002, Civil Engineering, Bogazici University
- BS, 1999, Civil Engineering, Bogazici University

Professional Registrations/Affiliations:

- Professional Engineer (Civil), FL, 2010, No. 71494
- Reviewer, Journal of Hydraulic Engineering
- Reviewer, Canadian Journal of Civil Engineering
- Member, American Society of Civil Engineers

Professional History:

2013 – Present	Senior Engineer – INTERA Incorporated, Gainesville, FL
2007 – 2013	Various positions including Project Engineer – Ocean Engineering Associates, Inc., Gainesville, FL
2002 – 2007	Graduate Research Assistant – Georgia Institute of Technology, Savannah, GA

Huseyin Demir has two decades of experience developing, modifying, coupling, and running wave, circulation, and sediment transport models. His experience also includes bridge scour analysis and statistical methods such as extreme value analysis and artificial neural networks. He applies his expertise to design and evaluate coastal conditions for bridges, roadways, and other coastal structures including revetments and seawalls. He has participated in many field campaigns surveying beaches and measuring waves and currents. His expertise and research in development of met-ocean conditions, linear and non-linear sea surface simulations, statistical methods, and programming created new capabilities and software for his clients. The Federal Highway Administration's HEC-18 Scour Evaluation Manual, Florida Department of Transportation's Scour Manual and Unknown Foundations Evaluation Methodology, and scholarly journals have incorporated the results of his research. He has worked on coastal projects in Florida, Georgia, Louisiana, South Carolina, North Carolina, New York, Mississippi, and Texas. He applies the numerical modeling tools SWAN, WAM, REF/DIF-S, ROMS, ADCIRC, HEC-RAS, RMA2, SED2D, GENESIS, and SBEACH, and the programming languages Fortran, R, and MATLAB to help provide an understanding of coastal conditions. He has managed various coastal projects including Bridge Hydraulic Reports and roadway protection.

Project Experience – Coastal Engineering

Hurricane Milton and Helene Hindcast, Confidential Client, FL. 2024. *Engineer.* Conducted ADCIRC simulations, calibrated model results, and carried out post-processing of data. Insurance company used the products for resource allocation during hurricane response.

Bridge Hydraulics for Fort Hamer Bridge, Manatee County, FL. 2024 – 2025. *Project Manager and Engineer of Record.* Developed ADCIRC/SWAN model to calculate surge and scour conditions required for the bridge design. Conducted FEMA NO RISE Study. Analyzed RETA results for rock scour.

Probabilistic Sea Level Rise Guidance for FDOT Bridge Design, Florida Department of Transportation. 2023 –Current *Project Manager*. Employed stochastic simulations, utilizing efficient sampling procedures, to simulate lifetime risks for coastal infrastructure. Developed lifetime predictions for Florida Bridges by applying survival analysis on National Bridge Inventory Data. Developed guidance and software tools that enable practitioners to calculate risk-based design for sea level rise.

Bridge Hydraulics for San Martin Blvd. over Riviera Bay, Pinellas County, Pinellas County, FL. 2021 – 2022. *Project Manager and Engineer of Record.* Developed ADCIRC/SWAN model to calculate surge and scour conditions required for the bridge design. Developed design SLR using Monte Carlo simulations of bridge life.

Coastal Hydraulics for Big Carlos Pass Bridge, Lee County, FL. 2016 – 2022. *Project Manager and Engineer of Record.* Developed ADCIRC/SWAN model to calculate surge, wave forces and scour conditions. Examined different inlet configurations and their impact on design conditions. Calculated scour for non-cohesive sediments and rock using results of RETA tests. Examined possible impacts of boat wakes on shoreline erosion. Developed Bridge Hydraulics Report.

Bridge Hydraulics Analysis Report for the Little Ringling Bridge Replacement Project, Florida Department of Transportation District 1, Sarasota County, FL. 2021-2022. *Engineer.* Updated previous INTERA study using the latest FEMA surge elevations. Provided alternative design sea level rise elevations using a novel approach involving Monte Carlo simulations to combine the non-stationary storm surge and sea level rise processes.

Miao Tian, PhD, PE
Coastal Engineer – Gainesville, FL Office

Years of Experience: 17

Education:

- PhD, 2014, Coastal and Oceanographic Engineering, University of Florida
- MS, 2010, Coastal and Oceanographic Engineering, University of Florida
- BS, 2008, Oceanology, Hohai University

Professional Registrations/Affiliations:

- Professional Engineer, FL, 2019
- Engineer-in-Training, CA, 2013

Professional History:

2016 – Present	Coastal Engineer – INTERA Incorporated, Gainesville, FL
2015 – 2016	Postdoctoral Fellow – Woods Hole Oceanographic Institute, Woods Hole, MA
2015	Postdoctoral Associate – University of Florida, Gainesville, FL
2010 – 2014	Graduate Research Assistant – University of Florida, Gainesville, FL
2010	Undergraduate Teaching Assistant – University of Florida, Gainesville, FL

Dr. Miao Tian has over a decade of experience encompassing coastal modeling, nearshore processes, and sediment transport. His doctoral research involved numerical simulation and data analysis to study the shoaling and breaking of tsunami over a short-wave field. His study also investigated nonlinear coastal infragravity waves. As a postdoctoral researcher, he was involved in the numerical simulation of the coupling between internal solitary waves and gravity current. He has experience with the application of the numerical modeling tools SWAN, ADCIRC, HEC-RAS, SRH-2D, SBEACH, ROMS, AdH, SMS and the programming languages Fortran, MATLAB, and Python to practical coastal engineering projects. His current work is focused on storm surge modeling, beach nourishment, and bridge hydraulics analysis.

Project Experience – Coastal Engineering

Hydraulic Study for I-75/SR 93A at Gibsonton Drive, Department of Transportation, Hillsborough County, FL. 2023 – Present. *Coastal Engineer.* The project involved developing the BHR and No-Rise Certificate for the replacement of the I-75 bridge over Alafia River and the widening of the I-75 bridge over Bullfrog Creek in Hillsborough County, FL. Applying both 1D (HEC-RAS) and 2D (ADCIRC) hydraulic models to develop the design hydraulics at the bridges. Performing bridge scour calculation based on FDOT and HEC-18 methodology. Conducting no-rise study based on existing SWMM and ICPR models.

Hydraulic Study for Rotonda Bridge over Rotonda River, Charlotte County, FL. 2023 – Present. *Hydraulic Engineer.* The project involved developing the BHR for the replacement of the Rotonda Bridge over Rotonda River in Charlotte County, FL. Applying an 1D (HEC-RAS) model to develop the design hydraulics at the bridge. Performing bridge scour calculation based on FDOT and HEC-18 methodology. Extracting the boundary conditions from an existing ICPR model.

Hydraulic and Scour Analysis for the Deer Prairie Creek Pedestrian Trail Bridge, Venice, Sarasota County, FL. 2022. *Hydraulic Engineer.* The project involved developing the BHR for the design of the Deer Prairie Creek Pedestrian Trail Bridge in Venice, FL. Constructed a HEC-RAS model to simulate the 10-, 25, and, 50-year riverine runoff events in steady-state mode. Calculated scour depths based on FDOT and HEC-18 methodology.

Replacement of Shore Drive Bridge over Shore Drive Canal, Pinellas County, FL. 2022 - 2023. *Coastal Engineer.* The project involved developing the BHR and BHRS for the design of the replacement of the Shore Drive Bridge over Shore Drive Canal. Designed hydraulic conditions at the bridge associated with storm surges given its location near the Gulf of Mexico. Applied the 2-dimensional hydrodynamics model ADCIRC and wave model SWAN to develop the design hydraulics and wave climate at the bridge. Conducted scour depths calculation based on Florida Department of Transportation (FDOT) and HEC-18 methodology.

Wave Climate Assessment and Structure Design in Summer Haven, St. Johns County, FL. 2022. *Coastal Engineer.* The project involved developing wave climate for the design of shore protection structures at Summer Haven, St. Johns County, FL. Applied the 2D wave model SWAN to assess the wave climate at the shoreline.

Stan Gober Bridge over Marco Channel, Collier County, FL. 2021. *Coastal Engineer.* The project involved development of the scour countermeasures design for several of the interior bents. Conducted armor stone size calculation based on HEC-23 method. Prepared the technical letter report.

TAB III

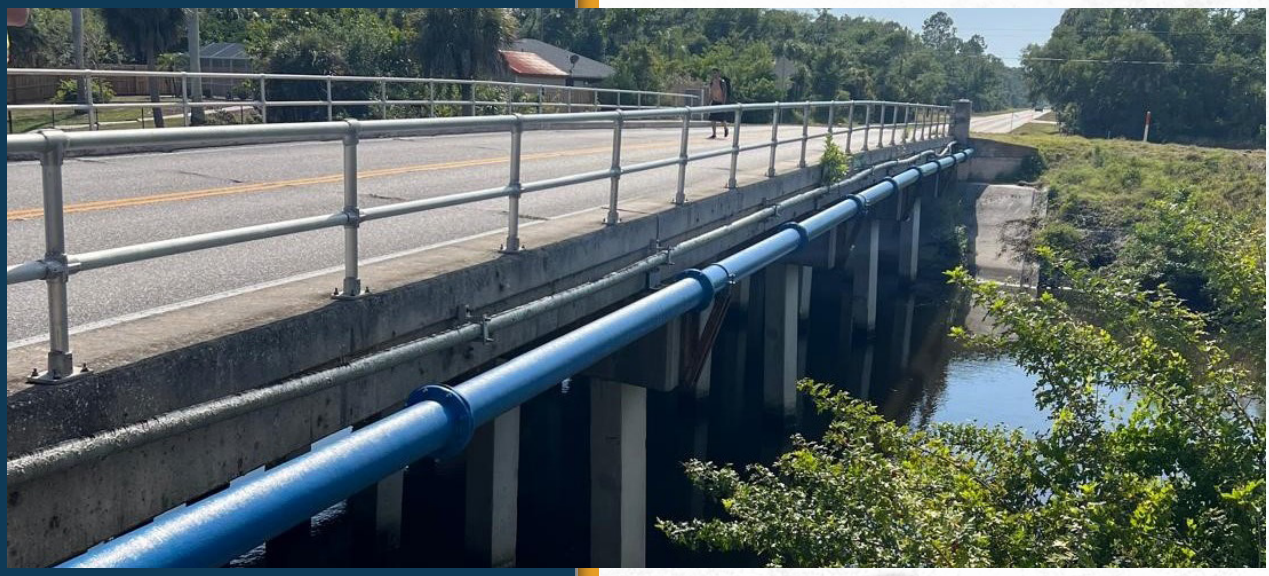
Previous Experience Of Team Proposed For The Project

A. Describe Projects

DRMP has designed over 150 vehicular bridges for various clients, including cities, counties, private clients, and FDOT. Our experience includes temporary, wood, and concrete bridges (cast-in-place, prestressed, post-tensioned), as well as steel plate and box girder bridges, in coastal, urban, and rural settings.

Below you can find a list of representative projects similar to the Bridge Scour Study and Countermeasures.

DRMP'S Partial List of Recent Similar Projects	PD&E	Design & Permitting	Water Crossing	Pedestrian Facilities	Utility Coordination	Constrained Right-of-Way (R/W)	Owned by Local Agency	100 Year Life Span	Public Outreach	FDOT	U.S. Coast Guard (USCG)	U.S. Army Corps of Engineers (USACE)	South Florida Water Management Dist (SFWMD)	U.S. Fish & Wildlife Service (USFWS)	National Marine Fisheries Services (NMFS)	Florida Fish & Wildlife Conservation Commission	State Historic Preservation Officer (SHPO)
5th Street Bridge Replacement	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C Street Cedar Key Channel | C-9A14	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
Port Sutton Bridge Replacement	X	X	X		X	X	X	X	X	X			X	X	X	X	
CR 229 over Gum Creek		X	X	X			X			X							
Micco Road over Sans Sebastian Canal	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X
CR 456 (Airport Blvd) over Daughtry Bayou	X	X	X	X	X				X	X	X	X		X	X	X	X
CR 456 (Gulf Boulevard) over Lewis Pass	X	X	X	X	X	X			X	X	X	X		X	X	X	X
Gasparilla Island Bridge Authority		X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
Pollard Road Bridge		X	X		X		X			X			X	X	X	X	
SR 397 over Toms Bayou		X	X	X	X	X			X	X	X	X		X	X	X	X
SR 10 (US 90) over Yellow River		X	X		X	X			X	X		X		X	X	X	
Apollo Boulevard over Eau Gallie River		X	X						X	X	X		X	X	X	X	
SR 9 over Fellsmere Canal		X	X			X				X		X	X	X	X	X	
Country Line Road Bridge Replacement	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
13th Street Bridge Replacement		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
Shore Drive Bridge Replacement		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X
CR 241 over Olustee Creek	X	X	X		X				X	X		X		X	X	X	X



NORTHWEST PORT CHARLOTTE MSBU BRIDGE REHABILITATIONS

CHARLOTTE COUNTY, FLORIDA

DRMP is preparing the design, plans preparation and specifications for the bridge widening along Chamberlain Blvd over the Jupiter and Apollo Waterways. The bridges will be widened to incorporate a five-foot sidewalk on the north side, traffic railing replacement and several repair/rehabilitation items to extend the life span of the bridges. A new water main will be provided along at the Jupiter Waterway bridge. The existing bridge will be widened with a detour in a highly constrained work zone within an established neighborhood. Services provided include bridge design, roadway analysis and plans, drainage, utility coordination, utility design, survey, and post-design services. Permitting and agency coordination are required from the South Florida Water Management District (SFWMD), the U.S. Army Corps of Engineers (USACE), the U.S. Coast Guard (USCG) and the Florida Department of Environmental Protection (FDEP).

Client: Charlotte County, FL

Kelly Slaughter
941.628.1216
Kelly.Slaughter@Charlotte-CountyFL.gov
410 Taylor Street, Unit 104
Punta Gorda, FL 33950

Dates: 2024-Present

Cost: $195k (design) / $2.6M (estimated construction)

Team members:

- Leo Rodriguez, PE (PM – Structures EOR)
- Pavan Paiavula, PE (Roadway EOR)
- Rachel Schmidt, PWS (Permitting Lead)
- David Johnson, PE (Structures Lead)

Similar Experience:

- Municipal Project
- Bridge Widening
- Permit Approach
- Active Community
- Utility Coordination
- Utility Design
- Bridge Technical Memo

ENGLEWOOD EAST/GULF COVE MSBU'S BRIDGE REHABILITATION

CHARLOTTE COUNTY, FLORIDA

DRMP prepared the design, plans preparation and specifications for the repair/rehabilitation David Boulevard over Newgate Waterway - Bridge and Jennings Boulevard over Lafitte Waterway. The goal of this project is to extend the life span of these bridges by performing targeted repairs such as crack repairs, slope pavement repairs, joint repairs, guardrail repairs. DRMP was able to secure USCG and SWFWMD permit exemptions. Permitting and agency coordination were performed to acquire exemptiosn from the South Florida Water Management District (SFWMD), the U.S. Army Corps of Engineers (USACE), the U.S. Coast Guard (USCG) and the Florida Department of Environmental Protection (FDEP).

Client: Charlotte County, FL

Kelly Slaughter
941.628.1216
Kelly.Slaughter@Charlotte-CountyFL.gov
410 Taylor Street, Unit 104
Punta Gorda, FL 33950

Dates: 2023-2024

Cost: $92k (design) / $188k (construction)

Team members:

- Leo Rodriguez, PE (PM – Structures EOR)
- Rachel Schmidt, PWS (Permitting Lead)
- David Johnson, PE (Structures Lead)

Similar Experience:

- Municipal Project
- Bridge Construction
- Permit Approach
- Active Community
- Utility Coordination
- Bridge Technical Memo

CAPE HAZE DRIVE OVER CAPSTAN WATERWAY

CHARLOTTE COUNTY, FLORIDA

DRMP was responsible for the design, plans preparation and specifications for the repair of this single (1) span bridge with a total length of ± 21.7-feet. The superstructure is comprised of precast concrete arches supported behind bulkhead walls. This bridge provides a 25.3-ft roadway clear width and is not currently load posted. DRMP provided a Bridge Repair Memorandum (BRM) with repair recommendations, Repair Plans, Specifications and Permitting for Charlotte County. Repair scope included spall repairs, slope protection replacement, bridge painting, joint sealing and milling and resurfacing. DRMP was able to secure USCG and SWFWMD permit exemptions.

Client: Charlotte County, FL

Kelly Slaughter
941.628.1216
Kelly.Slaughter@Charlotte-CountyFL.gov
410 Taylor Street, Unit 104
Punta Gorda, FL 33950

Dates: 2023-2024

Cost: $65.5k (design) / $235k (construction)

Team members:

- Leo Rodriguez, PE (PM – Structures EOR)
- Rachel Schmidt, PWS (Permitting Lead)

Similar Experience:

- Municipal Project
- Bridge Construction
- Permit Approach
- Active Community
- Utility Coordination
- Bridge Technical Memo

13TH STREET BRIDGE REPLACEMENT

PINELLAS COUNTY, FLORIDA

DRMP provided professional engineering services for Pinellas County to prepare contract documents for a bridge replacement project in Tierra Verde. The 13th Street (Sands Point Drive) bridge, serving as the sole access to the mainland for the Sands Point subdivision, required comprehensive services including bridge design, roadway analysis, drainage, utility coordination and design, geotechnical work, survey, public involvement, and post-design services.

The design featured phased construction to maintain traffic and emergency routes, long-term low maintenance, safer pedestrian and bicycle facilities, traffic safety improvements, minimal environmental impact, and a wider channel opening for better hydraulics. Permitting and agency coordination involved Pinellas County, SWFWMD, USACE, USCG, and FDEP.

Client: Pinellas County, FL

Rob Meador
727.464.8731
RMeador@pinellas.gov
14 S. Ft Harrison Ave
Clearwater, FL 33756

Dates: 2022-2024

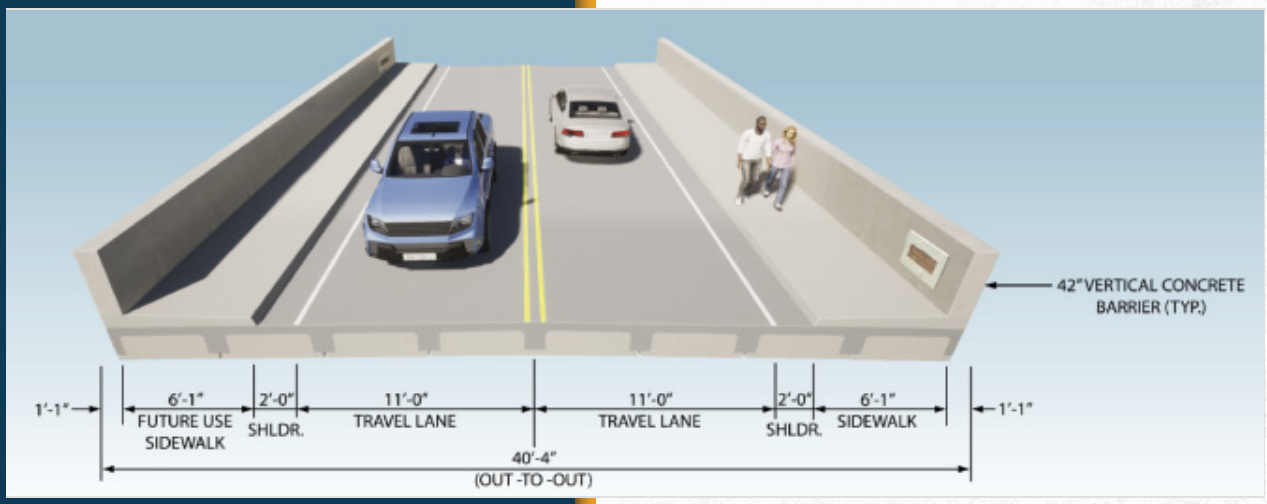
$900k (Consultant fee) $9M (estimated construction cost)

Team members:

- Leo Rodriguez, PE (PM – Structures EOR)
- Rachel Schmidt, PWS (Permitting Lead)
- Pavan Paiavula, PE (Roadway EOR)
- Intera Incorporated (Hydraulic EOR)

Similar Experience:

- Municipal Project
- Coasta Bridge Replacement
- Permit Approach
- Active Community
- Utility Coordination



SHORE DRIVE BRIDGE REPLACEMENT

PINELLAS COUNTY, FLORIDA

DRMP provided professional engineering services for Pinellas County to prepare contract documents, including plans, specifications, supporting engineering analysis, calculations, and other technical documents for a bridge replacement project in the Ozona Community within Palm Harbor. The project replaced the 100-year-old Shore Drive bridge over Brooker Creek and added approximately 0.25 miles of new sidewalks to connect part of the Ozona community to the Fred Marquis Pinellas Trail. The replacement structure was a simple span Florida Slab Beam (FSB) bridge with deep foundations at the end bents. The project included bridge hydraulics, a sidewalk location study, and agency permitting. The existing bridge was removed and replaced in a highly constrained work zone within an established neighborhood.

- Bridge design
- Roadway analysis and plans
- Drainage
- Utility coordination/design
- Geotechnical
- Survey
- Permitting
- Public involvement
- Post-design services

Services provided also included:
Permitting and agency coordination involved Pinellas County, the Southwest Florida Water Management District (SWFWMD), the U.S. Army Corps of Engineers (USACE), the U.S. Coast Guard (USCG), and the Florida Department of Environmental Protection (FDEP).

Client: Pinellas County, FL

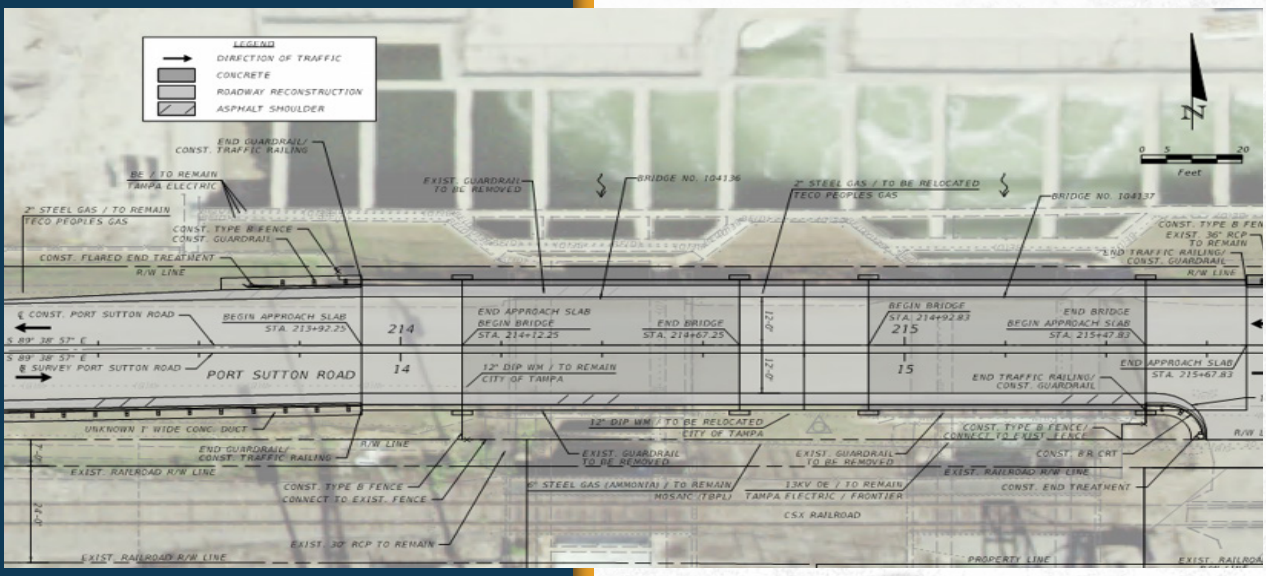
Rob Meador
727.464.8731
RMeador@pinellas.gov
14 S. Ft Harrison Ave
Clearwater, FL 33756

Dates: 2022-2024

$550k (Consultant fee) $5M (estimated construction cost)

Team members:
- Leo Rodriguez, PE (PM – Structures EOR)
- Rachel Schmidt, PWS (Permitting Lead)
- Pavan Paiavula, PE (Roadway EOR)
- David Johnson, PE (Structures Lead)
- Intera Incorporated (Hydraulic EOR)

Similar Experience:
- Municipal Project
- Coastal Bridge Replacement
- Permit Approach
- Active Community
- Utility Coordination



PORT SUTTON BRIDGE REPLACEMENT

HILLSBOROUGH COUNTY, FLORIDA

Port Sutton Road in Hillsborough County served as the sole access to industrial facilities, including the Tampa Port Authority, Tampa Electric Company (TECO), and Kinder Morgan. This project replaced two structurally deficient bridges that carried Port Sutton Road over the TECO Gannon Station Discharge Flumes 1 and 2. With no detour options and the need to maintain traffic to avoid major economic impacts to key industries in the Tampa Bay area, DRMP developed an innovative phased construction plan.

The plan addressed the existing transversely post-tensioned Sonovoid Slab superstructure, maintained active aerial and buried utilities, and avoided the Railroad corridor on the south side. It also managed vibration and settlement control while meeting the concerns of major stakeholders. The old bridges were replaced with Florida Slab Beams, using stainless steel reinforcing and spanning approximately 55 feet each, and founded on drilled shafts. The new bridges were constructed to straddle the existing ones, preventing undermining of the bridge foundations.

Client: Hillsborough County, FL

Steffanie L. Workman, PE
813.307.1893
WorkmanS@HCFL.gov
601 E. Kennedy Blvd., Tampa, FL 33602

Dates: 2018-2023

$700k (Consultant fee) $8M (estimated construction cost)

Team members:

- Leo Rodriguez, PE (Structures EOR)
- Pavan Paiavula, PE (Roadway Lead)
- Intera Incorporated (Hydraulic EOR)

Similar Experience:

- Municipal Project
- Phased Construction
- Coastal Bridge Replacement
- Preliminary Engineering Report
- Permit Approach
- Active Community
- Utility Coordination

COUNTY LINE ROAD BRIDGE REPLACEMENT

MARTIN COUNTY, FLORIDA

DRMP prepared a shovel-ready set of contract documents including plans, specifications, supporting engineering analysis, Cultural Resource Assessment Report (CRAS) and other technical documents for this bridge replacement project in Tequesta. The County Line Road Bridge serves as a critical connection for the community of Tequesta to the Jonathan Dickinson State Park, Girl Scout Camps and other recreational facilities. It is also the main connection between Fire Station No. 36 and multiple 50+ assisted living communities. The replacement bridge includes provisions for bike lanes and a sidewalk. The replacement structure is a 4-span Florida Slab Beam (FSB) bridge with deep foundations at the end and intermediate bents. The existing bridge will be removed and replaced with a detour in a highly constrained work zone within an established neighborhood.

Services provided included:

DRMP's replacement bridge design features a full detour, low-maintenance structure, and improved safety with better pedestrian and bicycle facilities.

- Grant support
- Bridge design
- Roadway analysis and plans
- Drainage
- Utility coordination
- Geotechnical
- Survey
- Post-design services

It avoids conflicts with existing piles, minimizes environmental impact (with permit exemption), and enhances hydraulic performance with a wider channel opening. Permitting and coordination involve Martin County, SFWMD, USACE, USCG, and FDEP.

Client: Martin County, FL

Keith J. Baker, PE
772.463.2848
kbaker@martin.fl.us
2401 SE Monterey Road
Stuart, FL 34996

Dates: 2022-2024

$400k (Consultant fee) $6M (estimated construction cost)

Team members:

- Leo Rodriguez, PE (PM – Structures EOR)
- Evhen Kyj, PE (Roadway EOR)
- Rachel Schmidt, PWS (Permitting)
- David Johnson, PE (Structures Lead)
- Ardaman & Associates (Geotech EOR)
- Intera Incorporated (Hydraulic EOR)
- Chronicle Heritage (CRAS)

Similar Experience:

- Municipal Project
- Coastal Bridge Replacement
- Grant Funding
- Permit Approach
- Active Community
- Utility Coordination

5TH STREET BRIDGE REPLACEMENT

NEW SMYRNA BEACH, FLORIDA

This project involved replacing the existing Bridge No. 795701 over the Yacht Club Cut in New Smyrna Beach, Florida. The scope included a PD&E study and final design. The facility was a 2-lane roadway providing access from the mainland to an island community and marina. The bridge's typical section featured two 9-foot lanes, 2.5-foot shoulders, and a 5-foot sidewalk with traffic railings. The superstructure consisted of a 3-span Florida Slab Beam (FSB) using stainless steel reinforcing and spanning 54 feet. The roadway was reconstructed on each side of the bridge, with a temporary ACROW bridge providing access during the replacement. Scour and tidal influences were critical in the structure's design.

The project also included PD&E study, public meeting coordination, Coast Guard coordination, environmental permitting, geotechnical investigations, survey, R/W mapping, utility relocation, roadway, drainage, coastal hydraulics, structures, lighting, signing, and pavement markings. It was a LAP project between the City of New Smyrna Beach and FDOT District Five. **PD&E-related tasks included:**

- Developing the purpose and need
- Preliminary Environmental Discussion
- Natural Resources Evaluation Report
- Informal consultations with USFWS/NMFS
- Preparing the environmental documents

Originally qualifying for a Type 2 Categorical Exclusion (CE), the project was later approved as a Type 1 CE by District Five due to last-minute changes.

Client: City of New Smyrna Beach, FL

Kyle Fegley
386.410.2800
kfegley@cityofnsb.com
214 Sams Ave, New Smyrna Beach, FL 32168

Dates: 2018-2022

$850k (Consultant fee) $3.5M (estimated construction cost)

Team members:

- Leo Rodriguez, PE (Structures Engineer)
- Rachel Schmidt, PWS (Permitting Lead)
- Intera Incorporated (Hydraulic EOR)

Similar Experience:

- Municipal Project
- Coastal Bridge Replacement
- LAP Project
- PD&E/NEPA
- Active Community
- Utility Coordination
- Scour Countermeasures

CR 456 (GULF BOULEVARD) OVER LEWIS PASS BRIDGE REPLACEMENT AND PD&E STUDY | C-9A14

CEDAR KEY, FLORIDA

DRMP was responsible for the PD&E study for this bridge replacement project. Our responsibilities during the PD&E phase included designing approved concepts from prior studies, identifying bridge repair alternatives for feasibility and establishing replacement alternatives and alignments to be analyzed and documented in the PD&E study. The project is a 2-lane rural roadway with two, 10-foot wide travel lanes.

The replacement bridge consisted of a three-span flat slab bridge 70-feet in length with a typical section of two 10-foot lanes, 3-foot outside shoulders with a 6-foot sidewalk and traffic railing on each side of the bridge. A temporary ACROW Series 300 Triple Truss bridge was used to provide maintenance of traffic while the existing bridge is replaced. Tidal influences played a critical role in design of the structure and determination of the superstructure type and vertical clearance of the bridge.

This project included:

- Roadway
- Drainage
- Environmental/permitting
- Structures
- Coastal hydraulics
- Geotechnical
- Public meeting coordination
- Coast Guard coordination
- R/W acquisition
- Utility relocation

Client: FDOT District Two

Will Lyons, PE
904.360.5574
will.lyons@dot.state.fl.us
2198 Edison Ave
Jacksonville, FL, 32204

Date Completed: 2020

$990k (Consultant fee) $5M (estimated construction cost)

Team members:

- DRMP (Lead Designer)
- Intera Incorporated (Hydraulic EOR)

Similar Experience:

- PD&E/NEPA
- Bridge Replacement
- Active Community
- ACROW Temporary Bridge

CR 456 (AIRPORT BOULEVARD) OVER DAUGHTRY BAYOU BRIDGE REPLACEMENT AND PD&E STUDY | C-9A14

FDOT DISTRICT TWO, LEVY COUNTY, FLORIDA

DRMP was responsible for the PD&E study for this bridge replacement project. Our responsibilities during the PD&E phase included designing approved concepts from prior studies, identifying bridge repair alternatives for feasibility and establishing replacement alternatives and alignments to be analyzed and documented in the PD&E study. The project is a 2-lane rural roadway with two, 10-foot-wide travel lanes.

The replacement bridge consisted of a four-span flat slab bridge approximately 172-feet in length with a typical section of two 10-foot lanes, 3-foot outside shoulders with 6-foot sidewalks and traffic railing on each side of the bridge. An ACROW Series 300 Triple Truss temporary bridge was used to provide maintenance of traffic while the existing bridge was replaced. Tidal influences played a critical role in design of the structure and determination of the superstructure type and vertical clearance of the bridge.

Client: FDOT District Two

Will Lyons, PE
904.360.5574
will.lyons@dot.state.fl.us
2198 Edison Ave
Jacksonville, FL, 32204

Date Completed: 2020

$990k (Consultant fee) $5M (estimated construction cost)

Team members:

- DRMP (Lead Designer)
- Intera Incorporated (Hydraulic EOR)

Similar Experience:

- PD&E/NEPA
- Bridge Replacement
- Active Community
- ACROW Temporary Bridge

TAB IV

Project Control

A. Schedule

1. WHAT TECHNIQUES ARE PLANNED TO ASSURE THAT SCHEDULE WILL BE MET?

The DRMP Team is **dedicated to meeting time and budget constraints while delivering excellent service**. We prioritize scheduling, which directly influences project costs, and have the expertise and resources to ensure timely completion within budgetary limits. Similar to other projects, we will work with the County to ensure budget, schedule, and funds are managed judiciously to ensure a successful project.

WILLINGNESS TO MEET SCHEDULE REQUIREMENTS

DRMP's consultant statewide schedule scores (3.8/5) are proof of **our ability to keep projects on schedule and within budget.** Our ability to meet schedules and set budgets is by performing a detailed review of the scope of services alongside field reviews and construction cost estimate. When scope/field/cost estimate comparisons take place, unique milestones, approvals, review periods and potential design delays are revealed. Special events are inserted into the schedule to identify potential additional delays. This allows the County and our team to address schedule conflicts proactively. We can allocate extra resources, initiate reviews earlier, and plan decision-making milestones well ahead of critical path deadlines.

PROJECT TECHNIQUES

ASSIGNED PROJECT PERSONNEL

The success of any project depends on the right personnel. DRMP will ensure the initial project organization and set-up is completed before developing the Project Management Plan (PMP). The PMP will provide a clear definition of individual tasks to be performed, including schedule and budget parameters for each phase of the project.

DESIGN TEAM MEETINGS

Bi-weekly team meetings will track progress and establish 30, 60 and 90-day lookaheads. During these meetings, we'll review staffing needs and decide on additional support if required. **We will maintain constant communication between DRMP and the County.**

MONTHLY MEETINGS WITH COUNTY

Monthly meetings with the County's Project Manager will ensure ongoing project advancement. DRMP will submit progress reports well ahead of these meetings for thorough review.

Progress reports Include:

- Key activities, issues and resolution status
- Risk identification and mitigation status
- Submittal status
- Schedule Status
- Budget Status
- Agency Coordination and Permitting Status

CRITICAL TASK DRIVING THE SCHEDULE

The environmental permitting effort will drive the schedule on this project. As part of our research and discussion with permit agencies, DRMP has confirmed the need for **early efforts:**

DRMP will hold an early coordination meeting with the necessary permitting agencies to discuss our permit approach. Our goal is to apply for an ERP to SWFWMD to ensure simplified and efficient agency correspondence. DRMP will initiate permitting early in the design process to avoid project delays.

See Tab V. PRESENT PROPOSED DESIGN APPROACH FOR THIS PROJECT" for an in-depth discussion.

2. WHO WILL BE RESPONSIBLE TO ASSURE THAT SCHEDULE WILL BE MET?

Our project manager, Mr. Rodriguez, will be responsible to assure the schedule is met.

B. Cost

1. WHAT CONTROL TECHNIQUES ARE PLANNED?

A successful project hinders on establishing a good plan from day one and executing that plan, while making prompt adjustments as situations arise.

PROJECT PLANNING

- SCOPE MEETING: During negotiations, we will hold a meeting with the County PM and team members. This meeting will strengthen our work plan by increasing our understanding of the County's goals, objectives, deliverables, schedule, and budget. Additionally, this meeting will serve as a "brainstorming session" enabling our team the ability to eliminate unnecessary efforts and needless costs.

- SCOPE OF SERVICES: Additionally, we work diligently to streamline the scope of work necessary to accomplish project objectives and strictly control budgeted service hours. Cost control is a priority during project development.

- BUDGET AND DESIGN FEE: We understand the budget constraints of public works projects and keep overall costs and service fees in check by assigning appropriately skilled personnel to each task.

PROJECT EXECUTION

- INTEGRATED COST CONTROL SOFTWARE: DRMP uses the Deltek Vision program for project accounting, budgeting and monitoring. Upon contract execution, DRMP, will establish the level of detail to be used and how negotiated staff hours will be monitored.

- COST MONITORING: We begin by assessing the budget and creating detailed preliminary estimates based on current County unit prices. If differences emerge, we adjust estimates as needed and, when necessary, collaborate with the County's project manager to identify cost-saving solutions.

- COST SAVING MEASURES: DRMP will apply cost-saving measures throughout the project to maintain budget alignment, including evaluating alternatives during the study phase. Once an approach is approved, we will manage the scope and design to avoid cost increases.

- POST CONSTRUCTION COST: We will collaborate with the construction engineer, addressing issues promptly and working closely with the County and contractor to prevent delays.

2. DEMONSTRATE ABILITY TO MEET PROJECT COST CONTROL

CONTROLS TO MEET BUDGET REQUIREMENTS

DRMP uses the Deltek Vision program for project accounting, budgeting and monitoring. Upon contract execution, **Project Manager, Mr. Rodriguez**, will establish the level of detail to be used and how negotiated staff hours will be monitored. Our electronic timesheet system and expenses system are automatically linked to Vision allowing close monitoring of a project on a weekly basis.

Our team is sensitive to the budget limitations of public works projects, including overall costs and our service fees. We minimize fees by selecting the appropriate project personnel required for each assignment. Additionally, we work diligently to streamline the scope of work necessary to accomplish project objectives and strictly control budgeted service hours.

Cost control is a priority during project development. We start by evaluating the budget and preparing detailed preliminary estimates using current County unit prices. If discrepancies arise, we work to align estimates with the budget and, if needed, collaborate with the County's project manager to develop cost reduction strategies.

COST SAVING MEASURES

DRMP will implement cost-saving measures throughout the project to stay on budget, including considering alternatives during the study phase. Once approved, **DRMP will manage scope and design to prevent cost increases**. During construction, we will collaborate with the construction engineer, addressing issues promptly and working closely with the County and contractor to prevent delays.

3. WHO WILL BE RESPONSIBLE FOR COST CONTROL?

Our Project Manager, Mr. Rodriguez, will handle cost control. He will be supported by a skilled and experienced team, all of whom have worked on similar projects.

C. Recent, Current, and Projected Workload

TEAM COMMITMENT

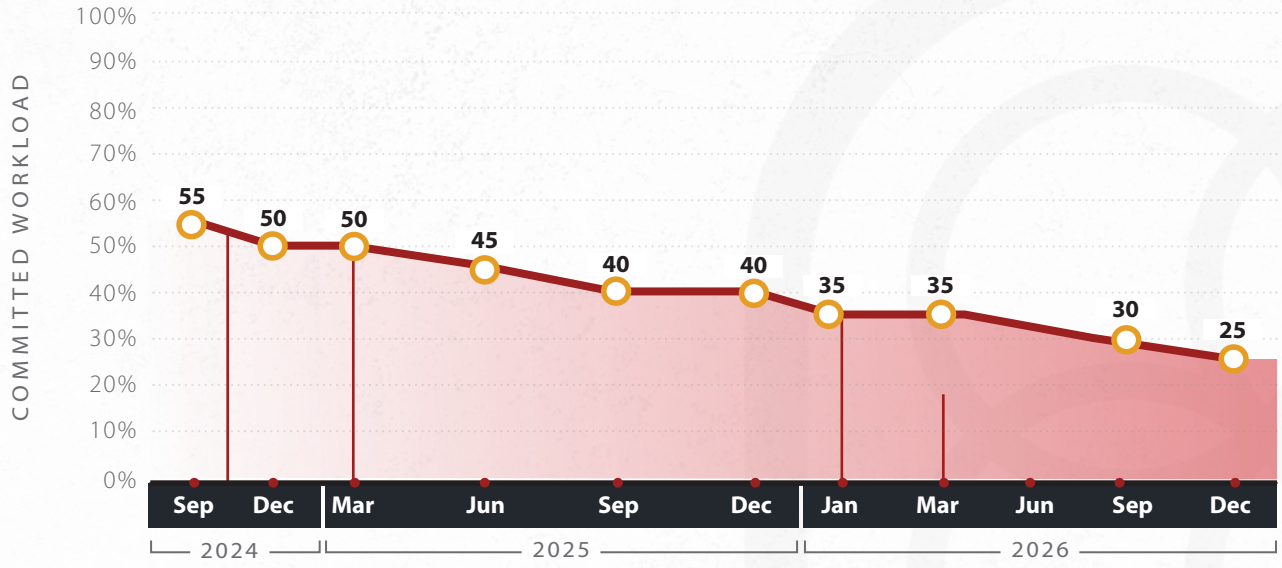
Our team has been carefully structured to provide exceptional service and experienced staff. We are committed to making the key team members identified in our organizational chart available to the County throughout this contract. DRMP's 30-member Structures Group, along with over 300 firm-wide engineers, inspectors, planners and surveyors give us unmatched flexibility to handle this project's schedule and any unforeseen events. Furthermore, we have carefully selected trusted subconsultants to augment our staff and capabilities.

PROJECTED WORKLOAD

Our proposed key personnel is currently seeing a decrease in their committed workload and long-term project commitments. We have provided a graphical representation of our projected workload percentages below.

RECENT AND CURRENT WORKLOAD

DRMP's current workload is such that we could easily complete this project in a timely manner. Our team of key personnel are immediately available to provide responsive, high-quality services on a daily basis.



STAFF AVAILABILITY

AMANDA WOODS, PE *Vice President-In-Charge*	**65%**	
LEO E. RODRIGUEZ, PE *Project Manager/Point of Contact*	**80%**	
SCOTT BENSON *Quality Assurance/Quality Control*	**75%**	
PAVAN K. PAIAVULA, PE *Roadway Engineer*	**65%**	
CHRISTOPHER PEREZ-BORROTO, PE *Roadway Engineer*	**65%**	
RACHEL SCHMIDT, PWS *Permitting Assistance*	**65%**	
BRADY HART *Permitting Assistance*	**65%**	
CHRIS WILD, PSM *Surveying & Mapping/SUE/Right-of-Way Mapping*	**65%**	
TOM MUSGRAVE, PE *Tierra, Inc.*	**65%**	
MARK GOSSELIN, PDH, PE *Intera Incorporated*	**65%**	
HUSEYIN DEMIR, PHD, PE *Intera Incorporated*	**65%**	
MIAO TIAN, PHD, PE *Intera Incorporated*	**65%**	

TAB V

Present Proposed Design Approach For This Project

A. Describe Proposed Design Philosophy

When we committed to responding to this RFQ, we realized the County's opportunity to successfully provide an economical and safe bridge design hinges on putting together an excellent team of professionals with relevant local and state-wide experience. **We have assembled our "A-team" with Leo Rodriguez, PE, serving as Project Manager.** Mr. Rodriguez has led similar County and FDOT bridge scour analysis projects. He also serves as the Project Manager and Structures Engineer of Record for several Charlotte County projects.

SCOPE UNDERSTANDING:

Our team understands this contract will provide design, survey and permits for Tom Adams Beach Road Bridge (#010029), Midway Boulevard Bridge (#014073), and CR775 Bridge (#010062). The primary purpose of this contract is to provide scour analysis and the design of scour 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). A bridge repair memorandum for each bridge will be provided that summarizes findings from the site inspection, evaluations, and surveys and provides recommendations.

DESIGN PHILOSOPHY:

The DRMP Method for completing consistent, high quality designs follows these eight steps:

1. Coordinate with the County
2. Gather and review relevant information (i.e. construction documents, inspection reports, load ratings)
3. Perform desktop and field reviews
4. Identify most-suitable key staff for the assignment
5. Finalize scope and action items
6. Perform work and QC to ensure quality
7. Complete the design task on time and within budget
8. Deliver scoped items to the County. Leo will have regular communication and schedule monthly meetings with the County PM to discuss the schedule milestones, budget, permit status, and other project-related items to ensure that the DRMP Team is efficiently using resources and always exceeding the needs of the County

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

WHAT IS SCOUR AND HOW IT AFFECTS BRIDGES

Bridge scour is the erosion of soil around a bridge's foundation at bents/piers and abutments, due to moving water. Bridge scour can destabilize bridge foundations, especially during storm-related floods, potentially leading to partial or complete collapse.

There are four (4) types of bridge scour:

1) Lateral migration: refers to channel bed elevation changes that result from lateral instability of the waterway. The river's lateral migration over time could potentially shift the bridge's location and leaving it outside the intended course.

2) Long term aggradation/degradation: Whereas general scour refers to bed elevation changes that result from lateral instability, aggradation and degradation is associated with the overall vertical stability of the bed. Long term aggradation and degradation refers to the change in the bed elevation over time over the entire reach of the water body.

3) Contraction scour: refers to erosion caused by the constriction of the channel due to natural or man-made features, leading to increased water velocity and erosion around the piers and abutments.

4) Local structure-induced pier and abutment scour: When water flows around a structure located in or near an erodible channel bed, the increased forces on the soil particles near the structure may remove sediment from the vicinity of the structure.

Consequences of scour on bridges:

- Foundation Instability: Scour undermines the bridge's foundations (piles, drilled shafts, etc.), making them vulnerable to collapse and reduction in the bridge load carrying capacity. This impact is greater on bridges classified as unknown foundation bridges. In Florida, bridges are classified as unknown because the pile driving records for all or a portion of the piles on the bridge are missing.

- Structural Damage: Scour can cause the bridge to sway or settle with potential to damage other bridge components such as bents/piers, abutments, and even the bridge beams or deck.

EXISTING CONDITION AWARENESS

Our team has reviewed the available information and visited the bridge sites. We understand that the primary purpose of this contract is to provide scour analysis, and the design of scour countermeasures (if needed) for the following structures:

- **Tom Adams Beach Road Bridge over Lemon Bay (#010029):** Built in 1965, the Tom Adams Bridge is a 998 ft-long bridge with a double-leaf bascule span over the navigational channel. The bridge carries Beach Road (CR 776) from the mainland in Englewood to Sandpiper Key. The bridge has gone several rehabilitations over the years, most recently in 2017. This bridge is a ***known foundation bridge*** that is scour critical.

DRMP will be performing structural repairs on this bridge.

- **Midway Boulevard Bridge over North Spring Lake (#014073):** Built in 1985, the Midway Boulevard Bridge is a 146 ft-long bridge comprised of four (4) spans and supported on pile bents. The bridge has gone several rehabilitations over the years, most recently in 2023. The bridge is considered an ***unknown foundation bridge*** that is scour critical.

- **CR775 Bridge over Ainger Creek (#010062):** Built in 1981, the Ainger Creek bridge is a 156 ft-long bridge comprised of four (4) spans and supported on pile bents. The bridge has gone several rehabilitations over the years, most recently in 2024. This bridge is a ***known foundation bridge*** that is not scour critical. However, this structure is on a 12-month inspection frequency due to the degradation and scour of the channel.

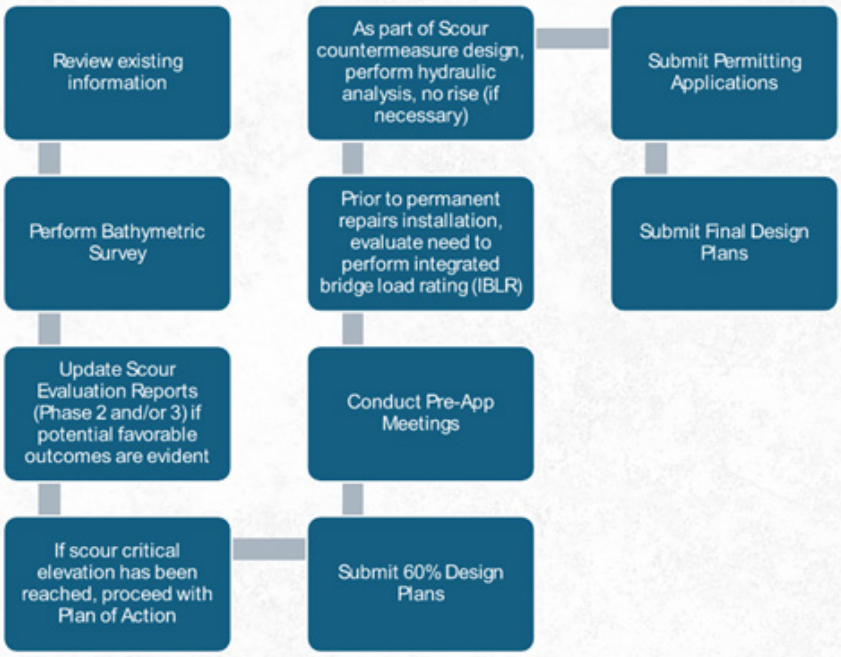
DESIGN PHILOSOPHY AND APPROACH

DRMP recommends performing the scour analysis and design in two (2) phases:

Phase One (1) - Investigation: The first phase is an investigative phase that will result in a Bridge Repair Memorandum (BRM) that identifies rehabilitation options to the County. This memo will include documentation of field conditions, review of all existing files related to the bridge, review of scour trends, geotechnical, structural, and future maintenance needs.

The critical first step is to perform a comprehensive review of the existing bridge information. During the review process, DRMP's experienced engineers will review all Scour Evaluation Reports (Known or Unknown), As-Built Plans, Pile Driving Records, Bridge Hydraulic Report (BHR), and several of the most recent bridge inspection reports.

Scour Critical Bridges - Procedure

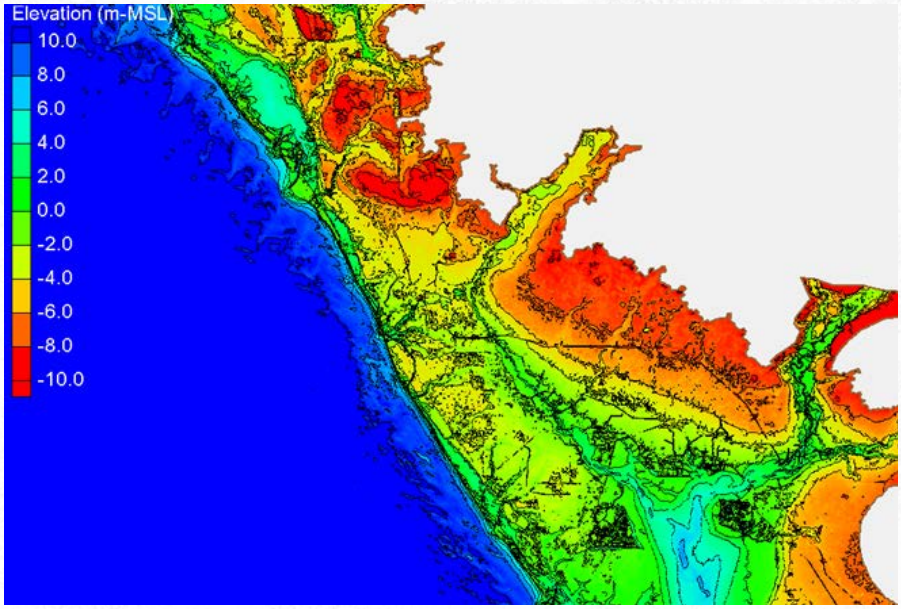


Critical scour elevations: Once the critical bent(s) and scour critical elevation are identified, DRMP will compare them with the current channel bed elevations to ensure the critical bent elevation have not changed. Channel bed measurements are typically recorded during the routine bridge inspections by use of a weighted tape. These measurements can be performed standing on the top of the deck or from a boat. In either case, there are limitations with this method which impacts the accuracy of the measurements. ***DRMP's in-house bathymetric equipment can provide a more accurate and complete images of the channel bed.*** Obtaining accurate channel elevations will also help define the area requiring channel armoring and narrow the potential scour countermeasure options.

Perform Bathymetric Survey: Each bridge presents a different set of challenges, and it is recommended to perform bathymetric survey on all of the bridges.

- **Tom Adams Bridge (Bridge # 010029):** For a bridge with a high vertical clearance or a deep channel with strong currents, the weighted tape is typically not heavy enough for accurate recordings. This is especially important for large substructure units like the moveable main span.
- **Midway Boulevard over North Spring Lake (Bridge # 014073):** A bathymetric survey is recommended since the bridge has an unknown foundation and is scour critical.
- **CR-775 over Ainger Creek (Bridge # 010062):** A bathymetric survey is recommended since the bridge has an unknown foundation and is scour critical.

Hydraulics Analysis: The three bridges all lie on tidally influenced waterways with mean tidal ranges on the order of 1-1.2 ft in Lemon Bay and Charlotte Harbor. As such, the design flows for these bridges are associated with hurricane storm surge. Team member INTERA Incorporated possesses a storm surge and wave model of the area (from the most recent FEMA coastal restudy) recently employed to develop design wave and surge conditions during Hurricane Ian for the reconstruction of the Sanibel Causeway for the FDOT. This model will be refined to include additional resolution in the vicinity of the project bridges and run to develop design surge, velocity, and wave climate at each bridge. Notably, countermeasure design should include examination of forcing by both flow velocity and wave impacts. Countermeasures will be designed to FHWA requirements contained in HEC-23 as well as the USACE Coastal Engineering Manual incorporating constraints associated with FDEP, USCG and OSHA standards. This will include specifying the countermeasure type, size footprint and thickness. Results from the modeling including all procedures, methodologies and results will be incorporated into a Hydraulics Memorandum for each bridge.



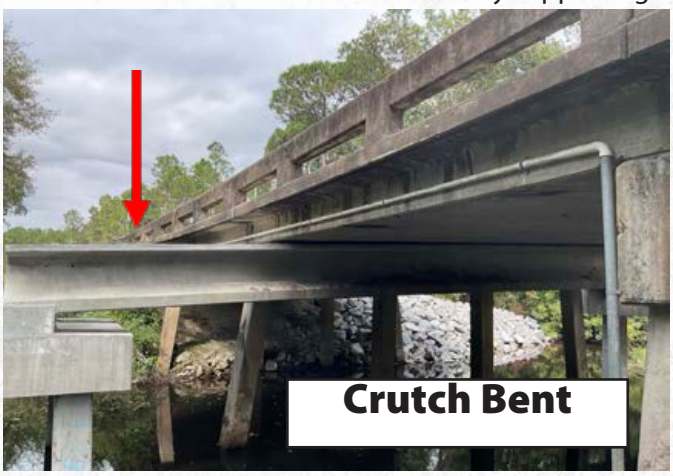
FEMA ADCIRC model mesh of the project area

Plan of Action and Preliminary Evaluation of Scour Countermeasures: Assuming the previously identified critical bent has the least embedment based on current mudlines, procedure states to follow the Plan of Action (POA). The POA includes several important pieces of information such as contact information for the maintaining agency and owner, scour action elevation, scour critical elevation, and detour route. The Plan of Action also provides the scour countermeasure options from the Phase 4 Scour Evaluation Report. While these options are helpful, the design of the scour countermeasures were typically lacking granular detail such as the channel contours and Right-of-Way limits. Additionally, the construction cost estimates are not up to date with the latest FDOT historical unit rates. Therefore, any feasible scour countermeasure should be evaluated in the investigative phase.

Phase two (2) - Design: The Design Phase, will start after receiving approval from the County on the recommended rehabilitation alternative, and will include repair plans from 60% through final plans.

Scour Countermeasure Design: scour countermeasure design calculations for the critical bent and potentially other bents should the flow depth, maximum stream velocity, and channel contours differ materially between locations. Design and detailing of scour countermeasure alternatives will follow the hydraulic and scour recommendations by our subconsultant (INTERA). All scour countermeasures will be designed for the 100- and 500-year storm events and follow the Hydraulic Engineering Circular (HEC) No.'s 18 and 23. Channel re-grading and ditch stabilization may be required to tie-in to the existing mudline.

Additional Bridge Support Elements: Bents at or below their scour critical elevation may need crutch bents for stability. A crutch bent consists of at least two substructure units and a concrete beam that is directly supporting the existing superstructure. The substructure is supported by multiple, driven concrete piles that are located on either side of the existing bridge deck. Once the crutch bents are installed, the existing superstructure will transfer loads directly to the crutch bent and no longer use the existing bent. The existing bent is typically left in place provided it does not represent an imminent failure risk. The crutch bent is designed for the design scour event assuming no scour countermeasures are in place. Lateral stability analysis for a crutch bent design is performed using a specialized geotechnical software called FB-Multi Pier. DRMP's engineers are well versed in FB-Multi Pier.



Permitting: DRMP has secured the permits for several scour protection measure projects and brings the needed experience to ensure project success. During the design phase of these projects, wetland assessment, documentation, and agency coordination will be conducted by certified Professional Wetland Scientists. It is anticipated the projects will require a Southwest Florida Water Management District Environmental Resource Permit and U.S. Army Corps of Engineers Section 404 Permit. If needed, unavoidable wetland impacts can be mitigated via the Little Pine Island Mitigation Bank. The proposed improvements at the Tom Adams Beach Road bridge and CR 775 bridge are located within an Outstanding Florida Water and the Lemon Bay Aquatic Preserve. Additionally, all three project locations fall within Essential Fish Habitat and established manatee protection zones; therefore, we will coordinate with U.S. Fish & Wildlife Service and National Marine Fisheries Service, as needed, and our design will incorporate the Standard Manatee Conditions for In-Water Work. Our team will coordinate with U.S. Coast Guard regarding any navigational concerns and Florida Department of Environmental Protection to identify any state-owned lands, as necessary.

POTENTIAL CHALLENGES/SOLUTIONS

Scour Countermeasure: If the current channel bed elevation is close to the scour critical elevation, the number of feasible scour countermeasure alternatives is reduced. Any temporary excavation to install scour countermeasures will reduce the existing pile capacity no different than if future scour were to occur. Additionally, bringing in fill and then installing scour countermeasures cannot increase the pile capacity.

Articulated concrete block (ACB): These alternatives typically provide a cost savings to bulky rubble riprap over larger plan areas. Other benefits include ability to install underwater (using divers) and interlocking mechanism. While the hardware has proven to be a challenge in the past, the latest articulated concrete block products incorporate corrosion resistant materials such as stainless steel, UV-resistant polypropylene (PP) and high-density polyethylene (HDPE).

Rubble riprap is typically difficult to source in large quantities and becomes very expensive as it's trucked in from out of state. Riprap also poses access problems for installation under an existing bridge and may need to be launched, whereas articulated concrete block and gabion mattresses can be installed manually. DRMP has the experience with a variety of scour countermeasure types and will implement the most cost efficient and constructable alternative.

Crutch Bent: The design and construction of a crutch bent can take longer than scour countermeasures. Therefore, a substructure load rating analyzing the pile axial capacity, without the crutch bent needs, to be performed immediately. This load rating procedure has been coined an "integrated bridge load rating (IBLR)". This comprehensive Load and Resistance Factor Rating (LRFR) load rating includes the typical superstructure load rating, and the lesser used substructure load rating based on the controlling bent's pile axial capacity. The bridge will then be posted for the controlling load rating between the superstructure and substructure until permanent repairs are installed. The substructure load rating will then need to be modified once construction is complete, and the posting can be removed (unless the superstructure requires posting). DRMP's engineers have performed several integrated bridge load ratings for FDOT.

Permitting Agency Requirements: To expedite the permitting process, scour countermeasures are typically installed to match the existing mudline elevation. However, if the channel has seen significant scour, the best solution may be to place the scour countermeasures on top of the existing channel bottom.
Temporary excavation may require installation of expensive cofferdams. Bridges with low vertical clearance often do not have sufficient headroom to install cofferdams. Pre-app meetings with the appropriate permitting agencies will be scheduled early in the design schedule to ensure all requirements are met such as no-rise hydraulic analysis. DRMP and INTERA have the experience working together on designing various scour countermeasures to ensure the most cost-efficient and constructible alternative is selected.

Utility Coordination: Utility coordination will be an important aspect of this project. Subsurface utility impacts need to be considered for work in the channel. Additionally, overhead powerlines, like to the west of CR-775 over Ainger Creek (Bridge # 010062) and to the south of Midway Boulevard over North Spring Lake (Bridge # 014073), will need to be considered for any crane work from the bridge deck or driving piles for crutch bent installation. Utility coordination with Utility Agency Owner (UAO)'s will begin early in the design phase, so the crutch bent design mitigates any utility re-location. Crutch bents also reduce the size of the hydraulic opening and will need to be evaluated for the 100-year design storm event to ensure a no rise condition is met.

Maintenance of Traffic: All three (3) bridges are over navigable waterways. Providing continuous, navigable access for boat traffic will be a requirement of the construction phasing. The construction may interrupt vehicular traffic if materials are being trucked to the site. A temporary traffic control plan will be developed to ensure construction is performed safely and with minimal interruptions to the public.

TAB VI

Present Examples of Recently Accomplished Similar Projects

A. Description of Projects to Demonstrate

1. SCHEDULE CONTROL

DRMP's consultant statewide schedule scores (3.8/5) are proof of our ability to keep projects on schedule and within budget.

Most recent project examples include:

PORT SUTTON ROAD BRIDGE REPLACEMENT, HILLSBOROUGH COUNTY, FL:

The DRMP Team were personally invested, willing and able to meet and exceed the County's time and budget requirements for this project. This same relentless commitment was evidenced in our very complex Port Sutton Road project where we completed the PER and obtained approval from the County leadership in less than 3-months and continued on a pace to complete the design in less than a 12-months total project turn-around.

COUNTY LINE ROAD BRIDGE REPLACEMENT, MARTIN COUNTY, FL:

Martin County was awarded funds via a grant fund agreement with the State. Our team was able to complete all the necessary documents four months ahead of time for the County to sign the agreement with FDOT (grant administrator). The grant was for $3-million and is being used towards the bridge construction. The effort was led by our Project Manager, Leo Rodriguez who ensured the DRMP Team were committed to acquiring all necessary permits and completing plans on time.

13TH STREET BRIDGE REPLACEMENT, PINELLAS COUNTY, FL:

Pinellas County was presented with the opportunity to compete for grant funds for the construction of this bridge. Our team was able to complete all the necessary documents four months ahead of time for the County. While the County was ultimately not successful in winning the grant funds, our project became shovel ready sooner and the County was able to fund it for Construction with transportation tax money. The DRMP team expedited design, acquired all necessary permits and completed plans on time.

SUMMER HAVEN NORTH OLD A1A ROAD RECONSTRUCTION PROGRESSIVE DESIGN-BUILD, SUPERIOR CONSTRUCTION COMPANY SOUTHEAST, LLC. FOR ST. JOHNS COUNTY, FL

This progressive design-build project includes the reconstruction of approximately 2,000 feet of sea wall and other infrastructure improvements along Old A1A following Hurricane Matthew. The wall was designed to resist a 100-year storm event and resulted in an anchored sheet pile wall. The project includes roadway reconstruction, drainage outfall pipe replacement, steel sheet pile and pile cap installation, replacement and adjustment of the existing rock revetment, utility coordination and relocation, environmental/permitting, survey, and public involvement.

CR 2 OVER LONG CREEK BRIDGE REPAIR DESIGN, WALTON COUNTY, FL:

The evaluation of the existing condition of the bridge. The deliverable included an Existing Condition Report detailing the findings along with a listing of recommended safety, structural, and maintenance repair recommendations along with associated construction costs. The task also included the preparation of design and construction plans for repairs to the bridge.

2. COST CONTROL

We understand the strain the recent inflationary tendencies have put on local agency budgets. Our strategy to overcome this matter and also limited budgets, is to have an honest and open conversation with the County PM at the scoping meeting regarding the available funds for design and construction. We use these numbers to come up with a "laundry list" of items that can done to achieve the County's goals. This approach has worked for us and has allowed us to keep our projects within budget.

DRMP will ensure that scope creep and issues during design do not create increase cost and provides the following independent reviews to ensure construction cost and project complexities are well understood.

PEER REVIEW:

We engage senior staff not involved in the project to vet design solutions and identify complexity, potential liability exposure and other sensitive items.

CONSTRUCTABILITY/BIDDABILITY REVIEW:

Our in-house CEI staff perform reviews help avoid errors and omissions in specifications and drawings and identify any potential construction constraints. CEI staff also ensures plans are sufficiently detailed to allow reasonable bidding by contractors.

CHARLOTTE COUNTY BRIDGE PROJECTS, CHARLOTTE COUNTY, FL:

The bids for our projects with the County have been below our engineer's estimate.

- **Englewood East/Gulf Cove MSBU's Bridge Rehabilitations. Cost**: $188k. EE: $256k
- **Cape Haze Drive Over Capstan Waterway. Cost**: $235k. EE: $247k

3. CONSTRUCTION PROBLEMS AND MEANS TAKEN TO SOLVE THEM

Our team takes proactive steps to ensure construction problems do not arise. One of these steps involve plans-in-hand review.

PLANS-IN-HAND REVIEW:

On all of our projects, we performed field review scoping and plans-in-hand review during 60% plans. This has been a successful strategy in all of our projects with the County and has resulted in positive results. During those reviews, we go over every single aspect of our findings and proposed improvements with the County PM or Project Engineer. This gives us an ability to foresee any construction issues and nail down County's preferences.

Finally, during construction, we will work closely with the construction engineer to avoid delays, answering any questions in a timely manner and working closely with the county and contractor.

4. ANY ADDITIONAL CONSTRUCTION COSTS CAUSED BY DESIGN DEFICIENCIES, NOT PROGRAM CHANGES.

Our team is dedicated to providing professional and competent design in every project we perform. We understand our reputation and the ability to continue working for the County hinges on the quality of our product. There are times when an unforeseen condition arises when our team has to proactively engage the Owner and Contractor to resolve the issue.

Most recently on our Englewood East/Gulf Cove MSBU's Bridge Rehabilitations, the asphalt layer was thicker than all available information indicated. This meant that the proposed joint repair required more quantity of a specialized material. We worked with the County to provide an alternative joint detail and revised drawings accordingly for as-builts. This allowed the County to avoid a costly change order.

TAB VII

Describe Your Experience And Capabilities In The Following Areas

A. Value Engineering

Our team has extensive experience in design-build projects. These projects require innovative ideas that save cost and provide a better value for the Owner. DRMP has teamed up with several contractors to come up with such innovative solutions through Value Engineering and re-designs.

EE WILLIAMSON ROAD TRAIL, SEMINOLE COUNTY, FL:

Our PM, Mr. Rodriguez was the Engineer of Record for the new pedestrian bridge on EE Williamson Road. As a value engineering service, DRMP provided the re-design of the pedestrian bridge from the proposed cast-in-place concrete slabs with Double T girders spanning 72-feet eliminating six intermediate bents and 18 concrete piles. This innovative approach allowed the Contractor to expedite schedule and minimize construction footprint.

US 19 PEDESTRIAN OVERPASS NORTH OF HARN BOULEVARD, PINELLAS COUNTY, FL:

Our PM, Mr. Rodriguez, was the Engineer of Record for the value engineering re-design performed on this pedestrian bridge. DRMP developed prefabricated (precast) concrete alternatives to replace the cast-in-place concrete elements of the original design. This construction saving initiative is estimated to save up-to $200,000 and cut construction cost by 4-months.

Strategy #1 - Tom Adams Bridge's most recent underwater inspection report has a statement indicating the scour critical elevation provided in the 2022 POA has been reached and exceeded consistently since at least 2011. Given the vertical profile of the bridge, the varying channel depth, and varying design scour by bent type (according to the 2014 Bridge Hydraulic Recommendations Sheet (BHRS)), the scour critical elevation will vary depending on bent number. DRMP's has the expertise to review all existing information and identify which bents are scour critical and how close each bent is to the scour critical elevation. Installing scour countermeasures for only the scour critical bents and/or bents that have significant calculated design scour can substantially reduce construction costs and permitting challenges.

Strategy #2 - Bridge No. 010062, CR-775 over Ainger Creek, is not scour critical which means the bridge is structurally stable for the design storm scour event. This classification indicates that widespread scour countermeasures are likely not required. Installing scour countermeasures for only the bents that have significant observed scour or bents near the deepest sections of the channel can substantially reduce construction costs.

Strategy #3 - Bridge No. 014073, Midway Boulevard over North Spring Lake, is scour critical with unknown foundations, therefore DRMP recommends revisiting the Lifetime Risk calculation presented in the Stage 1 Scour Evaluation Report. The bridge meets Minimum Performance Level (MPL), is not considered High Priority, and the lifetime risk of failure is greater than $15,000 (according to Unknown Bridge Foundation Procedural Manual, Appendix A), therefore Non-Destructive Testing (NDT) may be warranted. If the re-calculated lifetime risk is greater than $100,000, NDT should be considered. The recommended NDT methods for Concrete Piles are the Cross Hole Sonic Method and the Parallel Seismic Method. Once pile tips are determined from the NDT results, the Phase 3 Scour Evaluation Report can then be updated (better known as a Stage 6 Analysis). The updated structural stability analysis may remove the scour critical coding.

Strategy #4 - Bridge No. 014073, Midway Boulevard over North Spring Lake, may benefit from a re-evaluation of the Phase 2 and/or Phase 3 Scour Evaluation Report depending on the year the analyses were performed. A re-analysis with updated procedure and input assumptions could result in a more favorable scour critical elevation. This procedure has been successfully performed in the recent past on FDOT District 2 Unknown Foundation Bridges.

The presented value engineering strategies will be better understood after the review phase is complete.

B. Life Cycle Cost Analysis

The DRMP team performs bridge repair and rehabilitation tasks for many clients throughout the State. Additionally, we have an in-house Project and Development Environment (PD&E) team that evaluates bridge alternatives in the context of the National Environmental Protection Act (NEPA). As part of these tasks, we have performed Life Cycle Cost Analysis (LCCA) on multiple bridge sites to determine whether viable repair/rehabilitation alternatives and their annualized value outweigh the replacement cost.

Recent project examples include:

- SR 31 over the Caloosahatchee River, Lee County, Florida
- Countywide Bridge Assessment Report, Brevard County, Florida
- Citywide Bridge Assessment Report, City of Port Orange, Florida

C. Environmental Assessment

DRMP has secured the permits for several scour protection measure projects and brings the needed experience to ensure project success. During the design phase of these projects, wetland assessment, documentation, and agency coordination will be conducted by certified Professional Wetland Scientists. It is anticipated the projects will require a Southwest Florida Water Management District Environmental Resource Permit and U.S. Army Corps of Engineers Section 404 Permit. If needed, unavoidable wetland impacts can be mitigated via the Little Pine Island Mitigation Bank.

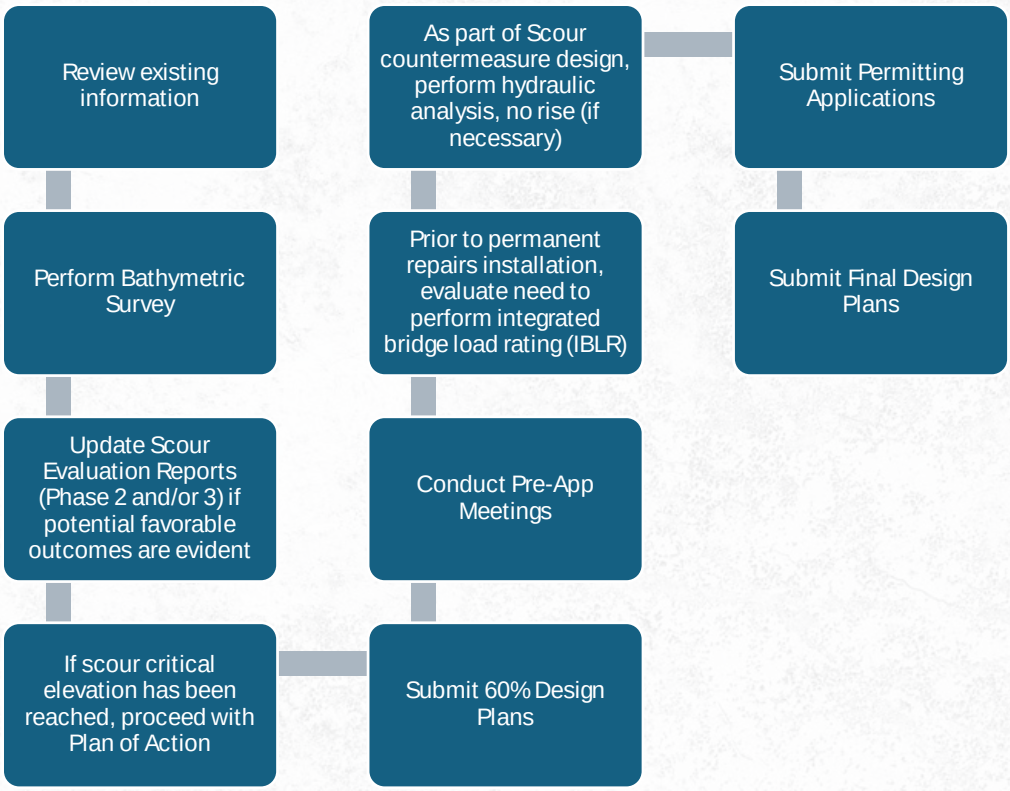
The proposed improvements at the Tom Adams Beach Road bridge and CR 775 bridge are located within an Outstanding Florida Water and the Lemon Bay Aquatic Preserve. Additionally, all three project locations fall within Essential Fish Habitat and established manatee protection zones; therefore, we will coordinate with U.S. Fish & Wildlife Service and National Marine Fisheries Service, as needed, and our design will incorporate the Standard Manatee Conditions for In-Water Work. Our team will coordinate with U.S. Coast Guard regarding any navigational concerns and Florida Department of Environmental Protection to identify any state-owned lands, as necessary.

D. Specialized Experience

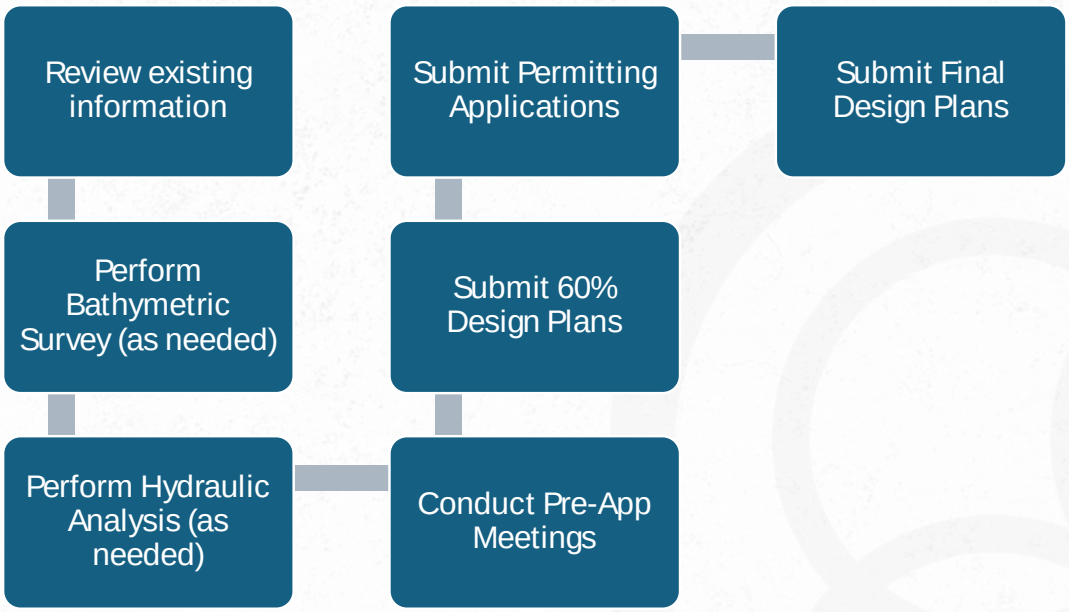
DRMP staff has significant experience with Unknown and Known Foundation Bridge Scour Evaluation Procedure. Understanding the hydraulic and structural analyses procedure and the changes to this procedure over the years allows DRMP Engineers to provide unique insights to this project. Communication between disciplines will be critical to this project, and DRMP and Intera have a strong relationship and extensive experience working together on successful coastal projects. DRMP's environmental group understands the permitting process for all regulatory agencies related to this project.

Scour countermeasures will be designed for each individual site based on the hydraulic analysis results. FDOT and the HEC Manuals provide guidance on extents upstream and downstream to provide scour countermeasures but these should be treated as guides and not Codes. Depending on the channel's geometry, the main types of scour (contraction, local, and long term) can vary significantly as you move further away from the bridge. Understanding how the contraction scour behaves as you move further away from the bridge can significantly reduce the scour countermeasure extents and by extension construction costs.

Scour Critical Bridges - Procedure



Non-Scour Critical Bridges - Procedure



TAB VIII

Volume Of Work - Total Of Payments Recieved From County Within The Past 24 Months

VOLUME OF WORK

DRMP's volume of work, as evidenced by the total payments received from the county over the past 24 months, exceeds $500,000. This substantial figure underscores our continued engagement and the significant contributions we have made to various projects and services for the County during this period.

TAB IX

Location

PRIME AND SUB-CONSULTANTS RESPONSIVENESS AS IT RELATES TO THE FIRM'S LOCATION TO THE PROJECT

The majority of our services will be conducted at DRMP's Tampa, Sarasota, and Ft. Myers office, strategically located near Charlotte County, which allows us to respond promptly to requests. Our familiarity with the area and the County itself enhances both our efficiency and service quality.

DRMP recognizes that responsiveness is a key measure of success and is committed to ensuring the successful completion of this project through reliability and responsiveness. Our team will offer the County technical expertise and knowledge, exceptional project management, and unwavering dedication to meet and exceed project expectations. Our close proximity allows us to have regular oversight of project activities through frequent site visits and immediate response.

Our close proximity allows us to have regular oversight of project activities through frequent site visits and immediate response

DRMP Responsible Offices

TAMPA | PRIMARY OFFICE
15310 Amberly Drive, Suite 310
Tampa, FL 33647

FT. MYERS
1404 Dean Street, Suite 101
Tampa, FL 33647

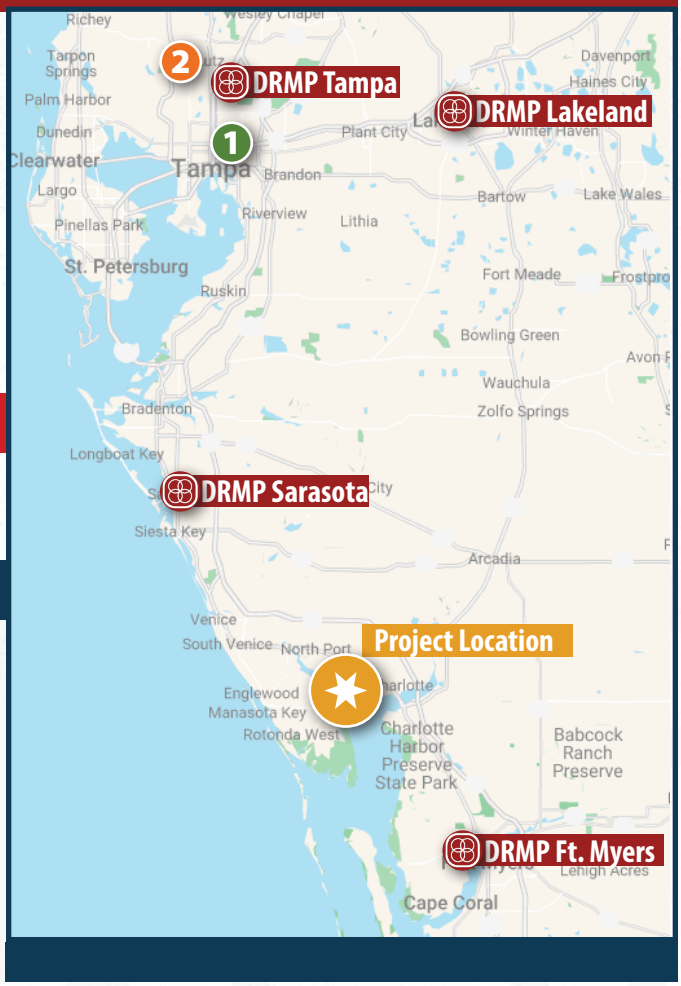
SARASOTA
46 N Washington Boulevard, Suite 2
Sarasota, FL 34236

Additional DRMP Staff Support:

LAKELAND
1125 Bartow Road, Suite 100
Lakeland, FL 33801

Subconsultants:

1. **TIERRA, INC. MBE**
7351 Temple Terrace Hwy,
Tampa, FL 33637
2. **INTERA INCORPORATED**
2438 Brunello Trce,
Lutz, FL 33558



TAB X

Litigation - Have You Been Named As A Defendant Or Co-Defendant In A Lawsuit In The Last Five Years

LITIGATION STATEMENT - 5 YEARS (2020-2025)

DRMP, Inc. has never been the subject of an investigation conducted by a regulatory or professional licensing board.

DRMP has been subject to legitimate, frivolous and harassment lawsuits as a result of our actions or inactions in the 48-year course of the practice of our business. However, no litigation has occurred involving contractual issues. The following provides a detailed explanation of suits that occurred within the past 5 years.

Timacuan NBE. DRMP was named as a co-defendant in a lawsuit brought against it by the Clay County Utility Authority. The suit alleged that there were design errors of the site work. DRMP argued that the problem with the constructed tank was misdiagnosed and that the repairs to the tank were improperly executed. DRMP argued that the repair to the tank created the failure and was avoidable. The lawsuit was settled out of court in 2024.

Clay County Utility Authority v. Beach Construction Company, Inc., et al. DRMP was named as a co-defendant in a lawsuit brought against it by the Clay County Utility Authority. The suit alleged that there were design errors of the site work. DRMP argued that the problem with the constructed tank was misdiagnosed and that the repairs to the tank were improperly executed. DRMP argued that the repair to the tank created the failure and was avoidable. The lawsuit was settled out of court in 2024.

DRMP is not aware of other current or pending litigation to which we are a party.

TAB XI

Minority Business

CERTIFIED MINORITY BUSINESS ENTERPRISE STATUS

Although DRMP is not a MBE/WMBE, we do follow a stated policy of providing Minority/Women Owned Business Enterprises the maximum, practicable opportunity to participate in DRMP's procurement programs for provisions of materials, services, supplies and consultants. Each division is regularly reminded of this policy and is required to undertake efforts to acquire MBE/WMBE subconsultants and vendor services where practicable for the firm's projects.

DRMP maintains relationships with qualified minority business enterprises as certified by various municipalities and state agencies. Our commitment to MBE/WMBE is evidenced by our 2022 statewide "B" grade on 45 projects.

In addition, DRMP has made a commitment to an affirmative action and equal employment policy. It is our policy and practice to recruit and hire employees without regard to race, age, color, religion, sex, national origin or presence of a handicap.

TAB TWELVE

Submittal Forms

DRUG FREE WORKPLACE FORM

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that DRMP, 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

05/29/2025
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

Amanda Woods, PE
Printed Name

Senior Vice President/Director Of Transportation
Title

DRMP, Inc.
Nongovernmental Entity

05/29/2025
Date

END OF PART IV

NAME OF FIRM DRMP, Inc.

(This form must be completed and returned)

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
	Leo Rodriguez, PE, Project Manager	17	Tampa	Tampa	Tampa
	Amanda Woods, PE, Vice President	27	Tampa	Tampa	Tampa
	Pavan Paiavula, PE, Roadway Engineer	19	Tampa	Orlando	Orlando
	Christopher Perez-Borroto, PE, Roadway Engineer	5	Tampa	Tampa	Tampa
	Rachel Schmidt, PWS, Permitting Assistance	10	Tampa	Tampa	Tampa
	Brady Hart, Permitting Assistance	10	Tampa	Tampa	Tampa
	Christopher Wild, PSM, Survey&Mapping/SUE	19	Tampa	Tampa	Tampa
	David Johnson, PE, Structural Engineer	14	Tampa	Tampa	Tampa

2.	Magnitude of Company Operations	
	A) Total professional services fees received within last 24 months:	$ 255,735,320
	B) Number of similar projects started within last 24 months:	29
	C) Largest single project to date:	$18,542,035

3.	Magnitude of Charlotte County Projects	
	A) Number of current or scheduled County Projects	6
	B) Payments received from the County over the past 24 months (based upon executed contracts with the County).	$602,387.01

4.	Sub-Consultant(s) (if applicable)	Location	% of Work to be Provided	Services to be Provided
	Tierra, Inc.	7351 Temple Terrace Hwy, Tampa, FL 33637	10%	Geotechnical Engineering
	Intera Incorporated	2438 Brunello Trce, Lutz, FL 33558	10%	Bridge Hydraulics/Coastal & Hydraulic Engineering

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 DRMP, Inc.

(This form must be completed and returned)

6. Minority Business:	**Yes** _____ **No** X
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.	
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. 1 Dated 5/14/25 Addendum No. 2 Dated 5/19/25 Addendum No. _____ Dated _____

Addendum No. _____ Dated _____ Addendum No. _____ Dated _____ Addendum No. _____ Dated _____

Type of Organization (please check one): INDIVIDUAL (__) PARTNERSHIP (__) CORPORATION (X) JOINT VENTURE (__)

DRMP, Inc.
Firm Name

813.265.9800
Telephone

Fictitious or d/b/a Name

59-1791174
Federal Employer Identification Number (FEIN)

941 Lake Baldwin Lane
Home Office Address

Orlando, Florida, 32814
City, State, Zip

48
Number of Years in Business

15310 Amberly Drive, Suite 310, Tampa, Fl, 33647
Address: Office Servicing Charlotte County, other than above

Amanda Woods, PE, Vice President
Name/Title of your Charlotte County Rep.

407.362.1415
Telephone

Amanda Woods, PE, Vice President
Name/Title of Individual Binding Firm (Please Print)

Signature of Individual Binding Firm

5/29/2025
Date

Amanda.Woods@drmp.com
Email Address

(This form must be completed & returned)