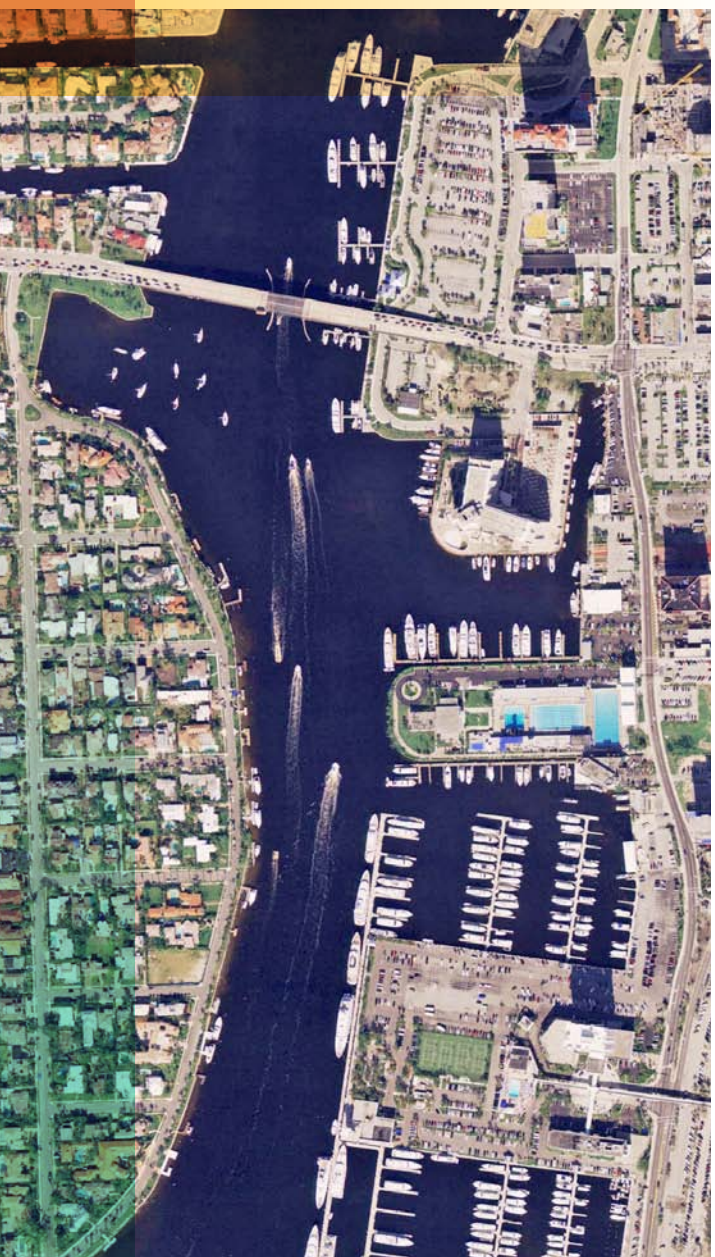
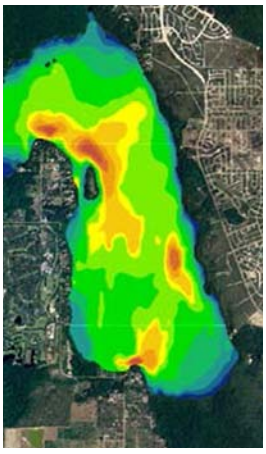
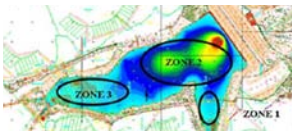
Statement of Qualifications

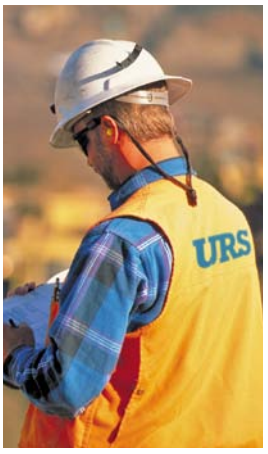
CITY OF FORT LAUDERDALE

Civil/Environmental Engineering Services









September 29, 2014

URS Corporation Southern
Contact: Panneer Shanmugam, PE
7800 Congress Avenue, Suite 200
Boca Raton, FL 33487
Phone: 561.994.6500
panneer.shanmugam@urs.com

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URS

September 26, 2014

The City of Fort Lauderdale
City Hall, Division of Procurement Services
100 N. Andrews Avenue, Room 619
Fort Lauderdale, FL 33301

Re: **Civil/Environmental Engineering Services**

To Selection Committee Members,

URS Corporation Southern is pleased to submit this qualification statement so that we can provide the Civil / Environmental Engineering Services for your Intracoastal Waterway - Las Olas Marina Dredging Project (the Project).

The annual Fort Lauderdale International Boat Show is an integral component of the City's local economy as it infuses $650 million into the local community. To efficiently engineer a plan to fulfill the yachting industry's need for additional deep water dockage at the Las Olas and Bahia Mar Yachting Center marinas, we must partner and work cooperatively in conjunction with the City of Fort Lauderdale and Florida Inland Navigation District (FIND) Intracoastal Waterway (ICWW) Deepening project team.

URS will provide only the highest caliber of professionals.
We are fully prepared to provide the City with top-notch engineering design, permitting and resources mitigation services for this marina dredging project. We are experienced with all aspects of the process - *from the initial environmental studies, permitting challenges and dredging design to the bidding process.* We will be responsive and dedicated to meeting the City's needs.

Our firsthand project site experience sets us apart from the competition.
We've served as the City's Coastal Engineer and have already completed a sea grass analysis, benthic survey, and submittal permit application for the project area. We've been successful with the permitting process and have established a good rapport with the permitting agencies including the USACE, FDEP and BCEPGMD. Our team contains dredging experts along with coastal engineers with FIND ICWW experience. URS can hit the ground running on this project by providing continuity with our knowledge and resources.

We bring significant dredging design and dredge management plan expertise.
Chip Day and Project Manager, Fernando Navarrete PE, PhD worked extensively with the City of the initial application. Nicholas De Gennaro, PhD, PE has managed the design and construction of similar projects and has dredged and excavated over 5 million cu yd of sediment. For over 7 years, Rajesh Srinivas, Ph.D., P.E., D.CE, our teammate and GEC Senior Coastal Engineer, provided FIND with planning, design, and/or construction management services on multiple FIND dredging and dredged material management projects along the Atlantic Intracoastal and Okeechobee Waterways.

URS Corporation Southern
7800 Congress Avenue, Ste. 200, Boca Raton, FL 33487
561.994.6500 phone www.urscorp.com 561.994.6524 fax
panneer.shanmugam@urs.com
*URS officers are authorized to bind the firm.

We are committed to performing assigned work on time and on budget.

Our record of delivering planning, design and construction services for community improvement projects both on-time and within budget is excellent. A critical key to maintaining performance in this area is that our project managers monitor and manage changes in projects proactively. We have selected an experienced and knowledgeable project manager and a principal with a comprehensive strategic programs background; they have worked with the City's team and understand the complexity surrounding this project. They are committed to managing our team and delivering a clear and efficient Dredging Design Plan.

Thank you for considering our qualifications. URS will provide the City with talented staff, resources, subconsultants and professional marine, civil and environmental experience required to effectively perform and complete this design contract. We look forward to continuing to work with the City of Fort Lauderdale and to providing all the required professional engineering services.

Respectfully Submitted,
URS Corporation Southern

Panneer Shanmugam, PE
Vice President, Engineering Group
Principal in Charge

Fernando Navarrete, PhD, PE
Project Manager

BID/PROPOSAL SIGNATURE PAGE

How to submit bids/proposals: Proposals must be submitted by hard copy only. It will be the sole responsibility of the Bidder to ensure that the bid reaches the City of Fort Lauderdale, City Hall, Procurement Services Division, Suite 619, 100 N. Andrews Avenue, Fort Lauderdale, FL 33301, prior to the bid opening date and time listed. Bids/proposals submitted by fax or email will NOT be accepted.

The below signed hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid. I have read all attachments including the specifications and fully understand what is required. By submitting this signed proposal I will accept a contract if approved by the CITY and such acceptance covers all terms, conditions, and specifications of this bid/proposal.

Please Note: All fields below **must** be completed. If the field does not apply to you, please note N/A in that field.

Submitted by: _____ 9/24/2014
(signature) (date)

Name (printed) Panneer Shanmugam, PE Title: Vice President

Company: (Legal Registration) URS Corporation Southern

CONTRACTOR, IF FOREIGN CORPORATION, MAY BE REQUIRED TO OBTAIN A CERTIFICATE OF AUTHORITY FROM THE DEPARTMENT OF STATE, IN ACCORDANCE WITH FLORIDA STATUTE §607.1501 (visit http://www.dos.state.fl.us/).

Address: 7800 Congress Avenue, Suite 200

City Boca Raton State: FL Zip 33487

Telephone No. 561.994.6500 FAX No. 561.994.6524 Email: panneer.shanmugam@urs.com

Delivery: Calendar days after receipt of Purchase Order (section 1.02 of General Conditions): TBD

Payment Terms (section 1.04): Net/30 Total Bid Discount (section 1.05): None

Does your firm qualify for MBE or WBE status (section 1.09): MBE _____ WBE _____ No.

ADDENDUM ACKNOWLEDGEMENT - Proposer acknowledges that the following addenda have been received and are included in the proposal:

Addendum No.	Date Issued

VARIANCES: State any variations to specifications, terms and conditions in the space provided below or reference in the space provided below all variances contained on other pages of bid, attachments or bid pages. No variations or exceptions by the Proposer will be deemed to be part of the bid submitted unless such variation or exception is listed and contained within the bid documents and referenced in the space provided below. If no statement is contained in the below space, it is hereby implied that your bid/proposal complies with the full scope of this solicitation. HAVE YOU STATED ANY VARIANCES OR EXCEPTIONS BELOW? BIDDER MUST CLICK THE EXCEPTION LINK IF ANY VARIATION OR EXCEPTION IS TAKEN TO THE SPECIFICATIONS, TERMS AND CONDITIONS. If this section does not apply to your bid, simply mark N/A in the section below.
Variances:

_____

_____

SECTION 3: QUALIFICATIONS OF THE FIRM

URS has a proven track record of dredging and reclamation projects throughout the world.

Dredging and reclamation project are often complex and can present significant risk in terms of environmental impact and long-term sustainability. URS provides a range of services to ensure the delivery of successful waterfront reclamation and environmentally sympathetic dredging operations.

Involving URS' coastal modelers and engineers at an early stage can identify potential issues in master planning allowing simple layout changes to improve long-term water quality. URS can model dredging operations which is often essential to minimizing impacts on the environment and to obtain permits and licenses to undertake the work.

URS offers single point solution for dredging and reclamation using in-house expertise to cover:

- Project management and master planning
- Survey and Met-ocean requirements
- Geotechnical assessment and design
- Numerical modelling of coastal areas
- Environmental Impact Statements
- Engineering design of reclamation and edge protection
- Construction supervision and monitoring

URS is one of the world's largest engineering design and environmental firms. We offer a broad range of engineering, planning and architectural design, environmental studies and permitting expertise as well as, program and construction management services for a variety of activities including marine, coastal and environmental projects.

URS has been providing professional engineering and water resources services for 100+ years. We have operated in South Florida for over 50 years. Florida has been a major focus of our professional engineering practice and we have provided all types of general engineering consulting services to South Florida municipalities.

URS Engineering News Record Rankings

#2 Top Overall: Environmental Firm

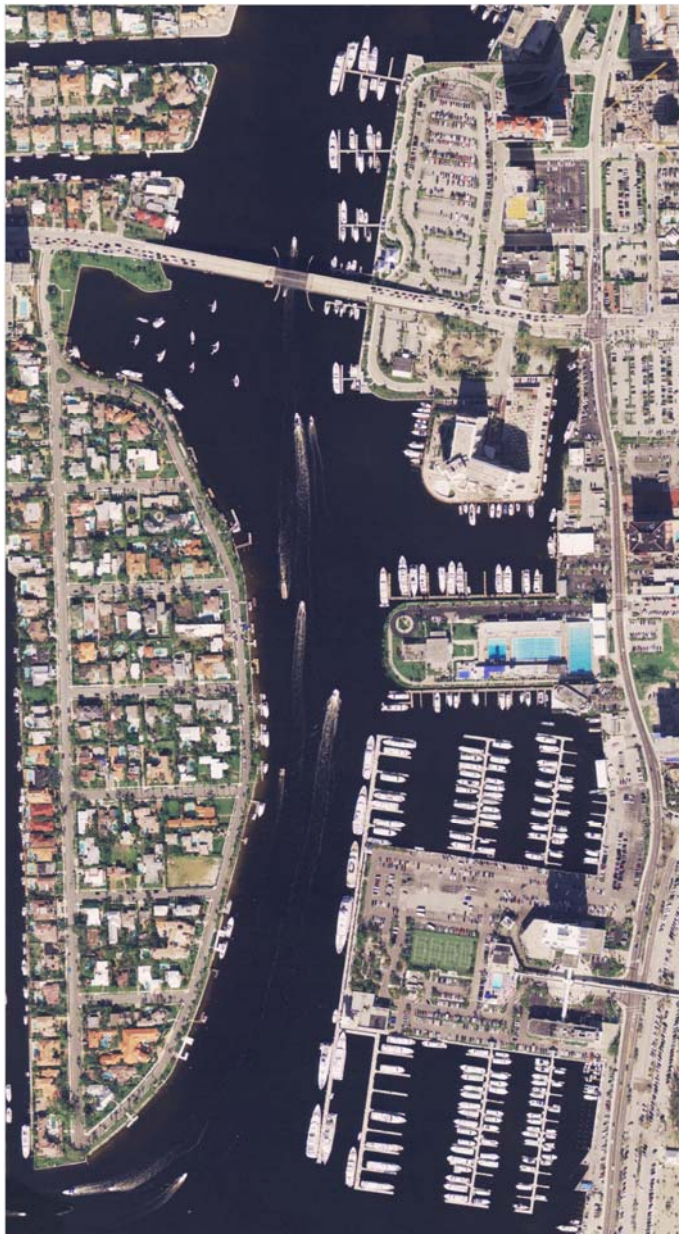
#4 Top Designer: Marine and Port Facilities

#6 Top Contractor: Marine & Port Facilities

We plan, design and manage the construction of coastal/marine projects, as well as water resources, civil, structural, environmental and transportation projects. Due to our size, we can internally staff and support each project from concept through construction with planning, design, engineering, field data collection, community involvement and permitting expertise as required.

Dredging and Selected Marine Experience

The following table summarizes just some of our dredging, marine and coastal experience. We were not able to include our most LOCAL and RECENT marina/coastal experience due to your RFP requirements.



URS Represenative Dredging Experience

Project Name	Location		Permitting or Reg. Assistance	Sediment/Remedial Investigation	Risk Assessment	Sediment Modeling	Forensics / Fingerprinting	Feasibility Study	Geotechnical Analysis	Bench-Scale/Pilot Studies	Engineering Evaluation/Estimating	Plans & Specifications	Design: Dredging / Excavation	Design: Remediation	Design: Restoration (Shoreline/Wetland)	Design: Capping	Disposal: In-Water Disposal/CDF/CAD	Disposal: Upland	Disposal: Beach Replenishment	Treatment: Dewatering	Treatment: Water Treatment	Treatment: Solidification/Stabilization	Treatment: Treatability Testing	Environmental Monitoring	Construction Support	Construction
Salt Chuck Mine Evaluation	Prince of Wales Is	AL	X	X	X						X		X	X				X								
Point Thomason Ocean Dumping Evaluation	Point Thomson	AL		X		X			X																	
Whitter Ferry Terminal Improvements	Whitter	AL		X																						
Cache River Channel Modifications Study	Grubbs	AK				X		X			X				X											
White River Dredging Mussel Studies	White River	AK		X	X	X																				
Dana Point Marina	Dana Point	CA									X	X	X				X									
Balboa Marina and Seawall	Newport Beach	CA	X								X	X	X		X		X								X	
Bair Island Marina	Redwood City	CA	X								X	X	X												X	
National City Marine Terminal	San Diego	CA		X					X				X				X								X	
Shearwater Remediation	San Francisco	CA	X	X	X		X	X			X	X	X	X		X		X		X		X		X	X	
Flamingo Marina Dredging	Everglades	FL	X	X					X		X	X	X					X		X				X		X
Lake Trafford Restoration	Collier County	FL		X		X			X		X	X	X												X	
Lake Marion Dredge Feasbility Study	Polk County	FL		X		X		X	X											X						
Wilton Manors FIND Grant Dredging	Wilton Manors	FL	X					X			X	X	X													
Dry Tortugas Emergency Dredging	Gulf of Mexico	FL	X								X	X	X		X			X	X					X	X	X
Port Everglades / Dania Dredging	Broward County	FL		X					X																	
McKay Creek Channel Dredging	Harbor Lake	FL									X	X	X					X		X				X		X
North Lake Dredging Feasibility Study	Hollywood	FL		X					X		X		X	X	X											
Marine Corps Blount Island Command	Jacksonville	FL									X	X	X													
Emerson Point Wetlands	Manatee County	FL									X	X	X		X		X									
Truman Harbor Rehabilitation	NAS Key West	FL	X								X	X	X												X	
Lake Hancock Dredging CM	Polk Co.	FL		X						X	X		X					X		X					X	

URS Represenative Dredging Experience

Project Name	Location		Permitting or Reg. Assistance	Sediment/Remedial Investigation	Risk Assessment	Sediment Modeling	Forensics / Fingerprinting	Feasibility Study	Geotechnical Analysis	Bench-Scale/Pilot Studies	Engineering Evaluation/Estimating	Plans & Specifications	Design: Dredging / Excavation	Design: Remediation	Design: Restoration (Shoreline/Wetland)	Design: Capping	Disposal: In-Water Disposal/CDF/CAD	Disposal: Upland	Disposal: Beach Replenishment	Treatment: Dewatering	Treatment: Water Treatment	Treatment: Solidification/Stabilization	Treatment: Treatability Testing	Environmental Monitoring	Construction Support	Construction
Port of Tampa (multiple)	Tampa	FL	X						X		X	X	X		X		X								X	
Coeur d'Alene Basin RI/FS	Coeur d'Alene	ID		X	X			X																		
Indiana Harbor Dredging	Chicago	IL								X	X	X	X				X			X	X					
Army Ammunition Plan RA	Evansville	IN			X	X																				
River Sediment Remediation	Medford	MA	X	X	X			X			X	X	X	X				X							X	
Sullivan's Ledge Superfund Remediation	New Bedford	MA		X	X			X		X		X	X		X	X		X							X	
Remediation	New Bedford	MA		X	X		X			X	X		X	X		X										
Coastal Massachusetts Marina	Weymouth	MA	X	X							X	X	X	X		X		X		X		X			X	
Wurtsmith AFB Risk Assessment	Oscoda	MI		X	X	X																				
Port of Gulfport Various Projects	Gulfport	MS	X			X			X	X	X	X					X								X	
Long Slip Canal Habitat Creation	Hoboken	NJ	X	X		X			X		X		X	X	X	X										
Study	New York	NY	X	X						X			X					X		X		X				X
Pennsylvania Avenue Landfill Closure	Brooklyn	NY		X				X																		
Marathon Battery Superfund Site	Cold Springs	NY								X	X	X	X	X	X			X		X		X				
St. George Ferry Terminal Dredging	Staten Island	NY		X			X				X	X	X	X		X									X	
Upper Wilmington Harbor DMMP	Wilmington	NC									X		X				X									
Tongue Point NAS Remediation	Astoria	OR		X			X				X	X	X	X											X	
Bradford Island Sediment Remediation	Cascade Locks	OR		X	X			X		X	X		X					X						X	X	
BP Terminal 22T Remediation	Portland	OR		X		X					X	X	X	X	X											

URS Represenative Dredging Experience

Project Name	Location		Permitting or Reg. Assistance	Sediment/Remedial Investigation	Risk Assessment	Sediment Modeling	Forensics / Fingerprinting	Feasibility Study	Geotechnical Analysis	Bench-Scale/Pilot Studies	Engineering Evaluation/Estimating	Plans & Specifications	Design: Dredging / Excavation	Design: Remediation	Design: Restoration (Shoreline/Wetland)	Design: Capping	Disposal: In-Water Disposal/CDF/CAD	Disposal: Upland	Disposal: Beach Replenishment	Treatment: Dewatering	Treatment: Water Treatment	Treatment: Solidification/Stabilization	Treatment: Treatability Testing	Environmental Monitoring	Construction Support	Construction
Ashley River Sedimentation	Charleston	SC				X					X	X	X	X		X										
Lake Hartwell Fish & Sediment Study	Lake Hartwell	SC		X	X	X																				
Alcoa Dredge Island Project	Comfort	TX		X					X	X	X	X	X	X		X	X	X		X						X
Elizabeth Mine RA	South Strafford	VT		X	X																					
Bremerton Naval Complex, Operable Unit B RI/FS	Bremerton	WA		X	X	X		X		X	X	X	X			X	X									
Pacific Sound Resources Remediation	Puget Sound	WA		X					X	X	X	X	X	X		X									X	
Woodrow Wilson Bridge	Washington	DC	X	X				X			X	X	X		X			X		X				X	X	
Ashland Lakefront Superfund Site RI/FS	Ashland	WI		X	X			X		X																

Business Authorization and Licenses

URS Corporation Southern is organized as a corporation and is registered as a legal entity in the State of Florida. URS is not a minority or woman-owned business (M/WBE); nor are we a Community Disadvantaged Business Enterprise (CDBE). However we team with such firms regularly.

URS has provided professional engineering services in the state of Florida since 1957. Our certificates of authorizations to transact business in the State of Florida to offer professional services, through the State Board of Engineers are provided on the following pages.

Corporate Certification

State of Florida
Department of State

I certify from the records of this office that URS CORPORATION SOUTHERN is a California corporation authorized to transact business in the State of Florida, qualified on April 9, 1981.

The document number of this corporation is 848780.

I further certify that said corporation has paid all fees due this office through December 31, 2014, that its most recent annual report/uniform business report was filed on January 2, 2014, and its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Third day of January, 2014

Ken Detzner
Secretary of State

Authentication ID: CU2199175317

To authenticate this certificate,visit the following site,enter this ID, and then follow the instructions displayed.

https://efile.sunbiz.org/certauthver.html

Engineering

State of Florida

Board of Professional Engineers

Attests that

URS Corporation Southern

FBPE

is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.

Expiration: 2/28/2015
Audit No: 228201501700

Certificate of Authorization

CA Lic. No: 2

Project Manager: Fernando Navarrete, PE, PhD

State of Florida

Board of Professional Engineers

Attests that

Fernando M. Navarrete, P.E.

FBPE

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015
Audit No: 228201520109

P.E. Lic. No: 69999

Corporate Contact Information

Company Name:	URS Corporation Southern (URS)
Address:	7800 Congress Avenue, Suite 200 Boca Raton, FL 33487
Telephone:	(561) 994-6500 (office) (561) 994-6524 (fax)
Web Address:	www.urs.com
Contact Person:	Panneer Shanmugam, PE Vice President
Contact:	(561) 994-6500 (office) (561) 994-6524 (fax) (561) 213-5562 (cell)
Email Address:	panneer.shanmugam@urs.com

Sustainability

URS is committed to business practices, operations, and projects that improve economic, environmental, and societal outcomes. Internally, URS' sustainability practices are being continuously enhanced to help minimize the Company's environmental footprint, reduce costs, and enrich the work experience of our employees.

The key components of URS' integrated approach to sustainability include the:

- *Marketplace:* where we integrate sustainable solutions into our project work;
- *Environment:* reducing the environmental impacts of our internal business operations; (recycling, lighting improvements)
- *Workplace:* where we improve the safety, well-being, and satisfaction of our employees and partners;
- *Community:* where we strengthen and enhance the communities where we work.

Our efforts consist of a "bottom-up" and a "top-down" approach to continually improving our sustainability performance:

"Bottom-Up" Approach. Green Teams are led by small groups of volunteers within each office. These volunteers help to determine baseline sustainability of our offices, thereby highlighting areas of opportunity. Subsequently sustainable office and travel plans can be produced. Our volunteers implement the initiatives as decided upon within the sustainable office plans to enhance office sustainability and promote continual improvement as required by ISO 14001 EMS.

"Top-Down" Approach. The Sustainability Program Steering Committee's role is to identify, implement, track and report on sustainability initiatives and policies at the corporate level. The Steering Committee is comprised of representatives from the four divisions and several related support functions such as real estate, travel and procurement. The Steering Committee is responsible for publishing our biennial corporate sustainability report.

URS' Sustainable Business Practices and Initiatives

With more than 54,000 employees in a network of offices in nearly 50 countries, our internal operations require a significant supply of fossil fuels, water, paper, and other natural resources. To combat URS' contribution to greenhouse gas (GHG) emissions, both directly and indirectly, we've implemented pro-active internal programs to measure and reduce our resource consumption.

Office Green Teams. To incorporate principles of sustainability into URS' internal operations to minimize the Company's environmental impact, optimize the use of resources, build positive relationships with our communities, create a healthy and productive work environment, and reduce operating costs, URS established a Green Team concept in 2009. Green Team leaders were tasked with developing comprehensive Sustainability Scorecards that contain more than 100 initiatives in seven categories, including:

- Water conservation
- Building energy conservation
- Mobile/carbon emissions reduction
- Resource/solid waste reduction
- Pollution prevention
- Community/social outreach
- Healthy work environment

Our Sustainability Scorecard provides a mechanism by which participating URS offices can plan new initiatives and track their progress in meeting goals. Offices measure against their baseline or previous year's performance to achieve continuous improvement. As part of the Green Team initiative, URS employees receive training on what they can do to improve the Company's overall environmental performance.

Office Energy, Water, and Other Resource Consumption. Individual Green Teams are responsible for collecting and analyzing energy, water, and other resource consumption data for their facilities. The Sustainability Scorecard includes the collection of monthly electricity, natural gas, water, and paper purchases.

Business Travel. URS has access to data on our business travel through third-party vendors that manage the Company's travel reservations. In the future, we hope to collect and analyze relevant data to support more sustainable travel.

Environmental Compliance. Our EMS programs track performance related to our environmental compliance, including spills, environmental fines, environmental observations, and hazardous waste generated.

Procurement Programs. URS' commitment to sustainable procurement extends to our worldwide supplier base. Our goal is to work collaboratively with our suppliers to achieve the following:

- Increase the energy and water efficiency of major office equipment and office buildings
- Increase recycled content and reduce embodied energy and water content of procured materials
- Reduce the purchase of non-recyclable and disposable supplies
- Procure goods and services from sustainable sources
- Align procurement activities with URS' environmental requirements
- Set targets for sustainability criteria through our supply chain
- Recognize suppliers that demonstrate clear evidence of sustainable procurement by elevating their status within our registered suppliers list.

URS' Infrastructure & Environment Division implemented guidelines requiring that major office equipment (copiers, printers, fax machines, etc.) purchased in the U.S. meet the minimum energy efficiency standards established by the U.S. DOE's Energy Star™ program.

Between 2011 and 2012, URS printed 45,000 less annual reports; a drop of 53%. Our new web-based annual report offers dynamic, interactive communication while promoting sustainable business practices.

URS also modified its Subcontractor Pre-Qualification Questionnaire to include questions to assess the sustainability.

ARCHITECT – ENGINEER QUALIFICATIONS
Standard Form 330

PART I – CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

City of Fort Lauderdale Intracoastal Waterway – Las Olas Marina Dredging Project

Fort Lauderdale, Florida

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
8/29/2014	n/a

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Panneer Shanmugam, Vice President, Engineering Group

5. NAME OF FIRM

URS Corporation Southern FEIN No. 59-2087895

6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
561-994-6500	561-994-6524	Panneer.shanmugam@urs.com

C. PROPOSED TEAM

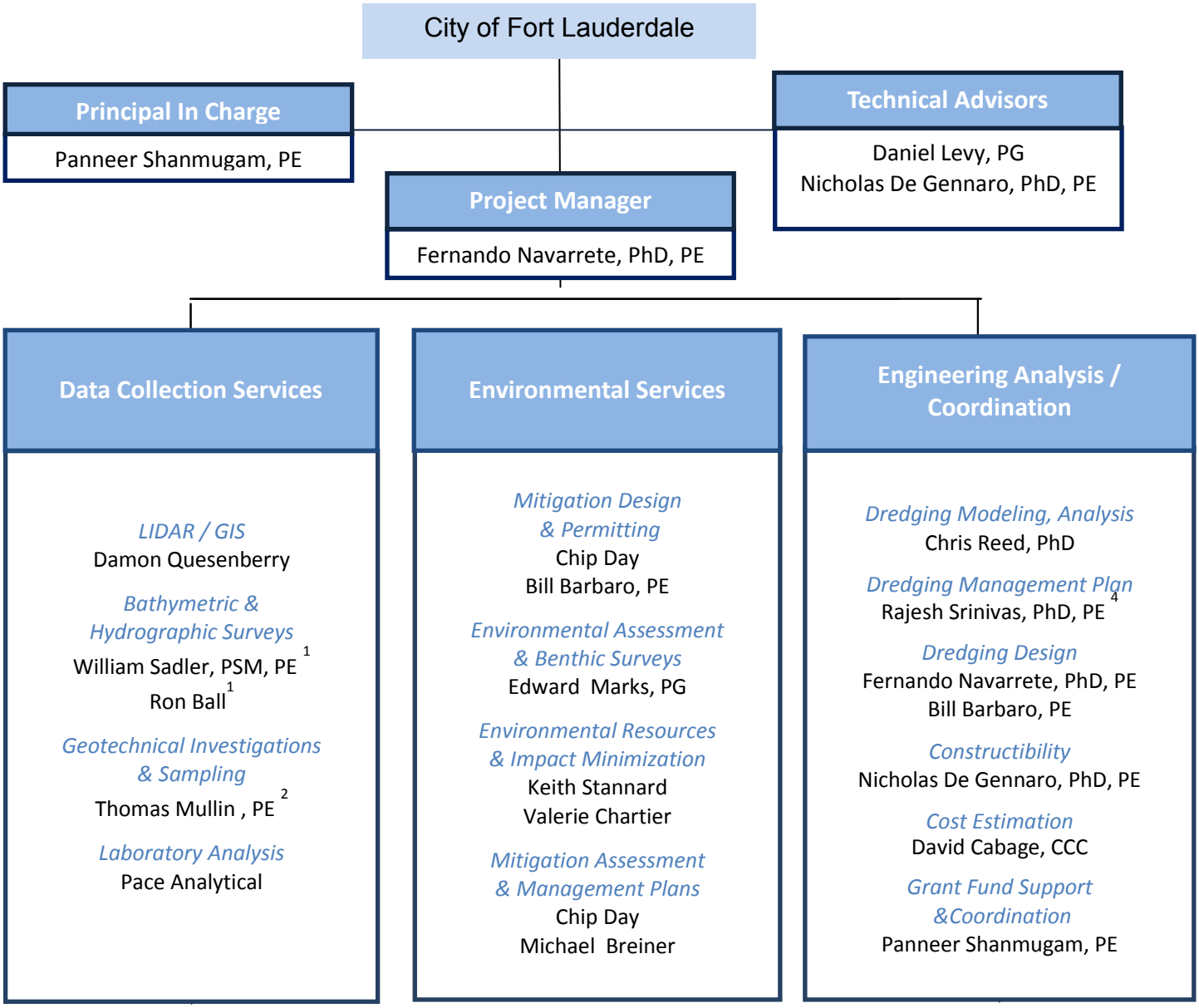
(Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	(Check) J-V PARTNER	(Check) SUBCON - TRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.	☒	☐	☐	URS Corporation Southern ☒ CHECK IF BRANCH OFFICE	7800 Congress Avenue Suite 200 Boca Raton, FL 33487	**Engineering Services:** Project Management, Planning, Engineering Analysis Dredge Design & Coordination
b.	☐	☐	☒	URS Corporation Southern ☒ CHECK IF BRANCH OFFICE	7650 Corporate Center Drive Suite 400 Miami, FL 33126	**Engineering Support Services:** Environmental Engineering Services
c.	☐	☐	☒	URS Corporation Southern ☒ CHECK IF BRANCH OFFICE	1625 Summit Lake Drive Suite 200 Tallahassee, Florida 32317	**Engineering Support Services:** Environmental Services, Dredging Modeling, H&H Modeling
d.	☐	☐	☒	URS Corporation Southern ☒ CHECK IF BRANCH OFFICE	7650 West Courtney Campbell Causeway Tampa, FL 33607	**Engineering Support Services:** Cost Estimating
e.	☐	☐	☒	Sea Diversified ☒ CHECK IF BRANCH OFFICE	21 NW 2nd Street Delray Beach, FL 33444	**Engineering Support Services:** Bathymetric & Hydrographic Surveys
f.	☐	☐	☒	Radise International ☒ CHECK IF BRANCH OFFICE	4512 West Blue Heron Boulevard, Suite 228 Riviera Beach, FL 33404	**Engineering Support Services:** **Geotechnical Services**
g.	☐	☐	☒	Pace Analytical ☒ CHECK IF BRANCH OFFICE	3610 Park Central Blvd. N Pompano Beach, FL 33064	**Engineering Support Services:** Laboratory Services

f.	☐	☐	☒	G.E.C., Inc. ☒ CHECK IF BRANCH OFFICE	841 Prudential Dr, 12th Floor, Jacksonville, FL 32207	**Engineering Support Services:** Dredging Management Plan

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

☒ *(Attached)*



Subconsultants:	1 = Sea Diversified 2 = RADISE International 3 = Pace Analytical 4 = GEC

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Fernando Navarrete, PhD, PE	Project Manager / Dredging Design	a. TOTAL: 22	b. CURRENT FIRM: 12

15. FIRM NAME AND LOCATION *(City and State)*
URS Corporation Southern *(Boca Raton, FL)*

16. EDUCATION (Degree and Specialization)	17. CURRENT PROFESSIONAL REGISTRATION (State and Discipline)
Ph.D. / Ocean Engineering BS / Civil Engineering	Florida, Civil Engineering #69999, (Civil-Water Resources)

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Member of American Society of Civil Engineers

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Compartment C and 2,100 cfs Pump Station
Hendry County, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2013
CONSTRUCTION *(if applicable):*

(3) BRIEF DESCRIPTION AND SPECIFIC ROLE ☒ Check if project performed with current firm

Senior Civil Engineer for the planning, design and construction management for the Compartment C project, which included the design and Engineering During Construction of a 6,395 acre of Storm Treatment Area (STA) with the respective canals, levees, water control structures and a large pump station that serves as the main water supply structure to the wetlands treatment system. Served as H&H Modeling Task Manager and helped select the dredging method for the dredging of the three canals converging to the inflow canal for the pump station.

b.

(1) TITLE AND LOCATION *(City and State)*
Lake Trafford Critical Restoration Project
Lake Trafford, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2012
CONSTRUCTION *(if applicable):*

(3) BRIEF DESCRIPTION AND SPECIFIC ROLE ☒ Check if project performed with current firm

Technical Advisor. Responsible for reviewing the various alternatives and construction methodologies proposed to reduce the project cost and still meet the restoration goals for this large, shallow lake which was impacted by a thick bottom layer of decomposing organic matter containing a high level of total phosphorous. The project included the preliminary design for the confined disposal facility (CDF) which required storage capacity to handle over 5-million cubic yards of dredge spoils. The team also developed and implemented innovative bathymetric survey process to identify fluid mud layers using both sonic and ground penetration radar techniques to accurately map and quantify target sediment locations and volumes.

c.

(1) TITLE AND LOCATION *(City and State)*
Dry Dock Dredging
Baja California, Mexico

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2006
CONSTRUCTION *(if applicable):*

(3) BRIEF DESCRIPTION AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Manager for the sediment characterization to determine the environmental quality of sediments to be dredged for the construction of a dry dock in the cost of Baja California, Mexico. Served as the Project Manager for the offshore marine biology and benthic survey, and the marine geotechnical and geophysical studies. Also participated in the hydrodynamic modeling for the cold water diffuser design for the offshore platform to be constructed in the proposed dry dock and later to be located just offshore of the coast of Baja California, Mexico.

d.

(1) TITLE AND LOCATION *(City and State)*
Aquarius Sea Base Lab Decommissioning Study and Environmental Permitting, NOAA
Monroe County, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2012-2013
CONSTRUCTION *(if applicable):*

(3) BRIEF DESCRIPTION AND SPECIFIC ROLE ☒ Check if project performed with current firm

Ocean Engineering Technical lead for this highly technical, multi-phased project, which includes the potential decommissioning of the NOAA Aquarius Sea Base Laboratory in the Florida Keys National Marine Sanctuary. Helped determine all the engineering considerations for the decommissioning of the Aquarius Sea Base Laboratory.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Panneer Shanmugam, PE	Principal in Charge Grant Fund Support &Coordination	22	18

15. FIRM NAME AND LOCATION (City and State)
URS Corporation Southern *(Boca Raton, FL)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
B.E. (Civil Eng.); M.E. (Civil Eng.); M.B.A. (Finance)	Florida/Civil #53880

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)
Compartment C and 1,630 cfs Pump Station
Hendry County, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2012
CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project manager for the planning, design and construction management for the Compartment C project, which included the design and Engineering During Construction of a 6,395 acres of Storm Treatment Area (STA) with the respective canals, levees, water control structures and a large pump station that serves as the main water supply structure to the wetlands treatment system. Scope of work involved dredging method analysis and H&H modeling for the dredging of the three canals converging to the inflow canal for the pump station.

b.

(1) TITLE AND LOCATION (City and State)
Fire Training Facility/Administration Complex
Palm Beach County, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2009
CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Principal in charge. URS served as site/civil consultant for the fire training facility which included 42± acres site development and the design of 2 major buildings, Administration Building and the Apparatus Building. Site civil design included paving, grading and drainage, water, sewer, fire lines, including 3 on-site sanitary lift stations and a sanitary force main connecting to an existing off-site force main. The majority of the fire training props were positioned on top of the existing landfill (closed in the 1970's).

c.

(1) TITLE AND LOCATION (City and State)
General Engineering Continuing Services Contract
City of Miramar, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: Current
CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Principal in charge for this general services contract involving an array of services: W/WW, Planning, A/E design, environmental, geotechnical, traffic/roadway, landscape architecture, surveying, stormwater/drainage, structural, and construction inspection services.

d.

(1) TITLE AND LOCATION (City and State)
6,200-acre STA at Compartment C
South Florida Water Management District (SFWMD)

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2012
CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project Manager for planning and design development of 6,200 Acres of Storm Water Treatment Areas (STA 5/6). Tasks included Hydrological & Hydraulic Modeling of the STA area and canal/flow-way analysis; 23-miles of new levee/canal systems; 19 new automated gated culvert structures; and a 100-cfs Pump Station.

e.

(1) TITLE AND LOCATION (City and State)
2,175-cfs Pump Station Design,
South Florida Water Management District (SFWMD)

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2012
CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Contract manager for planning and design development of a major pump station with served as the main inflow structure for the several STAs. Total pumping capacity within the pump station was 2,175-cfs and included inflow and seepage pumps. The pump configuration for the inflow pumps consisted of high flow 470-cfs diesel pumps and low flow 110-cfs electric pumps. The pump station also housed a 50-cfs pump facility consisting of two 25-cfs electric pumps.

f.

(1) TITLE AND LOCATION (City and State)
General Engineering Services Continuing Services Contract
Town of Davie, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: current
CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Serves as Senior Manager and Engineering Consultant for this general engineering services continuing contract which involves traffic/transportation, architectural, roofing evaluation, hurricane hardening and structural hardening services.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Daniel Levy, PG	Technical Advisor	a. TOTAL: 24	b. WITH CURRENT FIRM: 19

15. FIRM NAME AND LOCATION (City and State)
URS Corporation Southern *(Miami, Florida)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
B.S. Degree 1984, Geology Florida State University	1989 / Professional Geologist / FL #853

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mr. Levy has over 24 years of sediment dredging experience and specializes in sediment remediation technologies. He is a Professional Geologist and Certified Hazardous Material Manager with extensive first hand experience in developing innovated solutions for removal of contaminated sediments. Mr. Levy has been involved with numerous dredging projects throughout the southeast and served as the Project Director for the largest Dredging Demonstration project conducted in Florida (Lake Okeechobee).

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If Applicable)*
Lake Okeechobee Pilot Dredging Project Lake Okeechobee, Florida	2012	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Manager for a 2-year $1M research and design pilot dredging project to demonstrate a new dredge technology (SEDCUT). Test results were successful and demonstrated that a 30 cm thick sediment layer of fluid mud (<5% solids) could be removed with little or no re-suspension of the underlying mud substrate. Key features of the technology included; 1) buoyancy compensation chambers to control the unit's contact pressure with the underlying substrate to allow the dredge head to ski along a density plane, 2) load indicators to activate the dredge pump, 3) a water manifold system to regulate solids content of the dredge slurry and 4) adjustable intake shield to minimize dilution water into the pump.

b.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If Applicable)*
City of Hollywood North Lake Dredge Feasibility Study Hollywood, Florida	2006	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Manager. Provided the full spectrum of dredge design and engineering services necessary to restore the navigational channel and environmental quality of the 84-acre manmade tidal lake. Services provided included, surveying, geotechnical bearing tests, water quality analysis, dredge plan design, cost estimating and regulatory permit negotiations.

c.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If Applicable)*
Everglades National Park - Marina Dredging Everglades City, Florida	2006	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Manager. Designed and implemented hydraulic dredging operations to remove calcium carbonate silt and marl sediments from the Everglades City Marina. Obtained all permits and performed hydraulic dredging operations to remove approximately 1,125 cubic yards of silt sediments from the marina boat basin. Worked with the Florida Department of Environmental Protection (FDEP) to allow the dredged sediment to remain onsite and avoided the significant cost of offsite disposal for the client. Due to the limited space within the marina, dredging was performed using an un-manned hydraulic powered Mudloader dredge, with a rotating cutterhead and high suction pump stationed on pontoons.

d.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If Applicable)*
Lake Marion Dredge Feasibility Study Lake Marion, Florida	2006	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Manager. Services provided included; bathymetric survey using both dual frequency and GPR, sediment characterization, bench scale testing (column settling and jar testing), conceptual dredge plans and development of an innovative dredge approach using in-lake capping and re-contouring to restore the lake's water quality. Lake Marion is a 2,995-acre located on the Lake Wales Ridge (Central Florida). The Lake has over 16.5M yd3 of organic sediments that are responsible for declining water quality and transitioning the Lake to a eutrophic status. The innovative dredge plan was shown to provide over $50M in cost savings over conventional dredging and was the preferred alternative.

e.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED: PROFESSIONAL SERVICES	(2) YEAR COMPLETED: CONSTRUCTION *(If Applicable)*
Lake Hancock Dredge Feasibility Study Lake Hancock, Florida	2005	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Senior Technical Advisor. Lake Hancock, a 4,500 acre-water-body located in Central Florida, contained over 26M yd3 of contaminated sediments. The sediment layer had an average thick of 3.8-ft and a 15% by weight solids content (solids contained 42% organics). The basis of this study was to evaluate innovative dredge methodologies, sediment dewatering alternatives and dredge processing and sediment disposal options.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Nicholas De Gennaro, PhD, PE	Technical Advisor Constructibility	25	15

15. FIRM NAME AND LOCATION (City and State)

URS Corporation *(Metairie, LA)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
PhD / Civil and Environmental Engineering MS / Ocean Engineering BS / Civil Engineering	Professional Engineer / MD, NC, VT, SC, and VA

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Dr. De Gennaro has 23 years of construction, construction management and design experience, with four years of graduate coastal research and TWIC clearance. He has been responsible for the design and construction management of major marine/environmental construction improvement projects involving marine structures, dredging, and the creation and restoration of marine facilities and habitat. Other assignments include: harbor improvements, channel improvements, reclamation, beach replenishment, marine oil field construction, underwater structures, docks, breakwaters, and cofferdams.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Coastal Protection & Restoration Authority of Louisiana (CPRA) Diversion and Wetland Restoration Projects Baton Rouge LA	On-going	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Senior Engineer & design lead. Responsible for design and implementation of major diversion and wetland restoration projects. Projects require use of 1 & 3 D modeling or river flow with various alignments and channel configuration: wetland creation using sediment flow analysis. The projects also require enhancement of local conditions including geotechnical and hydraulic behavior.

b.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Fukushima Flood Study Report / Brunswick Nuclear Power Plant Southport NC	2013	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Near Term Task Force (NTTF) member. Studies facility and made recommendations to mitigate potential damage to US nuclear plants for similar extreme storm events. The project requires evaluation of the flood hazard for each flood causing mechanism, based on present-day methodologies and regulatory guidance. The report is to provide an analysis of each flood causing mechanism that may impact the site including local intense precipitation and site drainage, flooding in streams and rivers, dam breaches and failures, storm surge and seiche, tsunami, channel migration or diversion, and combined effects.

c.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Batiquitos Lagoon Enhancement Project Carlsbad, CA	1997	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Construction Manager responsible for the overall design and construction. The primary focus of this $55M project was to develop tidal flushing for a 600 acre coastal lagoon. Major components of the construction included dredging/excavation of 3 million cubic yards of sediment, construction of 5 nesting sites, the construction of a jetty protected inlet, the demolition and reconstruction of 2 bridges, retro fitting and stabilization of AT&SF rail trestle and I-5 lagoon bridge crossing.

d.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Port of Morgan City Harbor Dredging and Improvement Project Morgan City, LA	1993	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Engineer on a harbor dredging and improvement project which included dredge and relocation of 500,000 cubic yards of spoils to deep sea disposal. The project also included the construction of 17000' (on and off shore) petroleum pipeline infrastructure. The project required close coordination with the Corp of Engineers, the EPA, the State of Louisiana Department of Coastal Resources and the major oil companies.

e.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Theodore Ship Channel Dredging Project Theodore, AL	1992	
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Engineer responsible for all project controls including submittals on a one million cubic yard dredging and harbor improvement program. The harbor improvements required the use of a trailing suction hopper dredge and a clam shell dredge. A wharf replacement was also required. As project engineer was responsible for pile template design and placement along with all pile documentation. Two thousand, 70' by 18" octagonal pre-stressed concrete pile were used to support the structure.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
William R. Barbaro, PE	Mitigation Design & Permitting Dredging Design	a. TOTAL 11	b. WITH CURRENT FIRM 2

15. FIRM NAME AND LOCATION (City and State)
URS Corporation Southern *(Boca Raton, FL)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
BSCE / 2001 / Florida State University / Tallahassee, FL	2006 / PE / Florida / 64761

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)
Port Everglades Slip 2 Lengthening
Port Everglades, Broward County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project / Design Manager. Led team of civil, mechanical, structural, and environmental engineers in testing, design, and permitting for development of construction documents for the lengthening of Port Everglades Slip No. 2 to allow for accommodation of larger cruise ships. Facing a very aggressive project schedule, led the development of engineering plans for the installation of new sheet pile marina walls, the relocation of existing utilities, protection of existing and active petroleum transmission lines, and excavation of roughly 100,000 CY of earthwork to allow for the lengthening of Slip 2 by 250 linear feet to an overall length of approximately 1,150 feet. Design and management issues included constructability issues due to work in a highly active port with operations directly adjacent to project that must continue during construction. Limited area for site access and construction laydown in vicinity of project, and overcoming long lead permitting timeline by negotiation with regulatory agencies for reduction in submittal requirements resulted in reduced review times.

b.

(1) TITLE AND LOCATION (City and State)
Canaveral Port Authority Section 103 Federal Maintenance Dredge
Port Canaveral, Broward County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2010	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project Environmental Inspector/Safety Leader during pipeline construction activities through the Jean Lafitte National Historic Park and Preserve. The project consisted of dredging, trenching, and horizontal directional drilling through 0.55 miles the preserve. The project required removal, storage and replacement of the floating vegetation from project corridor so construction of the 24 inch petroleum pipeline could be accomplished within the wetlands of the preserve. The responsibilities also included monitoring of all work activities within the park to reduce the potential of damage to the park.

c.

(1) TITLE AND LOCATION (City and State)
Ginn Sur Mer Mega Yacht Marina & Resort Development
Westend, Grand Bahama

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2008	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Marina and Ocean Inlet / Earthwork Design Manager. Coordinated the planning, design and construction of a 2,000 acre resort community in the Bahamas. Tasks involved the design, bid, and construction supervision for the blasting, excavation, and placement of six million cubic yards of earthwork to create a mega yacht marina, including ocean inlet and jetties, 3 miles of canals, a PGA golf course designed in coordination with the Arnold Palmer Design Group and over 700 ocean front, canal front, and golf front single family home lots. The project was modeled and tracked using Bentley's GeoPAK software which allowed for assurance of a balanced site in light of frequent site plan modifications. Construction services included tracking of monthly excavation and fill placement progress to certify contractors pay requests. Additional tasks included Project Management for design of a retrofit collection system and paving rehab for an onsite private airport runway.

d.

(1) TITLE AND LOCATION (City and State)
Port of Miami Cruise Terminals D & E
Miami, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Senior Civil Engineer - Performed services during construction including, onsite inspections of civil construction for completion with the permitted construction plans and specifications, and response to contractor RFIs. Performed final inspections and develop project close out punch list, performed multiple follow up inspections to address and close out punch list items

e.

(1) TITLE AND LOCATION (City and State)
Port Canaveral Cruise Terminal 5/ 6 Ground Transportation Study
Cape Canaveral, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Project Engineer - Performed field study and vehicle count to evaluate the flow of ground transportation for cruise passengers embarking and debarking from cruise ships within both terminals. Analyze vehicle count data and field observations to determine a plan of action and make recommendations for Port master plan modifications to utilize the existing facility and improve traffic flow to accommodate the various parties involved including, the Port, local shuttle providers, the cruise lines, and most importantly the cruise passengers. Development of Transportation master plan exhibits, as well as traffic study results and recommendation exhibits.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Michael S. Breiner	Mitigation Assessment & Management Plans	a. TOTAL: 38	b. WITH CURRENT FIRM: 32

15. FIRM NAME AND LOCATION (City and State)
URS Corporation Southern *(Miami, FL)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
A.A.S./1978/Fish and Wildlife Management / Haywood Technical Institute, North Carolina	

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
6-inch Miami Beach Lateral Exposed Pipe Cover in Biscayne Bay Miami-Dade County, Florida	PROFESSIONAL SERVICES: 2006 - current	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Manager for environmental-related tasks associated with laying concrete pads on 9 exposed segments of existing submerged pipe (segment length varies up to 600 feet) located in the Biscayne Bay Aquatic Preserve which is also classified as an Outstanding Florida Water. Tasks include organizing and conducting an intensive 14-day underwater benthic resources survey to identify and map (in GIS) submerged resources within 65 feet perpendicular to each exposed segment due to the size of the vessel laying the concrete pads and potential from scour. Results of the survey will be used to apply for federal, state and local agency permits and provide suitable mitigation for proposed impacts due to construction activities. Mitigation planning, design and implementation will be a part of this project as well.

b.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Turkey Point Lateral, Miami, Florida Gas Transmission Company Miami-Dade County, Florida	PROFESSIONAL SERVICES: 2006	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Manager. Task leader for environmental-related tasks associated with installation and operation of pig launcher and receiver facilities along FGT's existing approximate 18-mile pipeline lateral in Miami, Florida. Tasks include conducting wetland and T&E species assessments, cultural resource assessments, preparation of FERC clearance letters to USFWS, DCA and SHPO, contamination assessments (Phase I) regulatory agency coordination, applying for and obtaining a Class V Dewatering permit through Miami-Dade County DERM, trench dewatering discharge sampling and analysis, MOT plans preparation with a lane closure analysis and permitting through FDOT.

c.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Fort Lauderdale-Hollywood International Airport Expansion Program/Westside Development Program Fort Lauderdale, Florida	PROFESSIONAL SERVICES: 2009 - current	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[ ]** Check if project performed with current firm	

Principal investigator assisting the Airport Expansion Program team and BCAD with ecological-related tasks including wetland mitigation construction and exotic species control oversight, threatened and endangered wildlife surveys and permitting (including burrowing owl relocations) and wetland mitigation compliance activities. Assisted in wetland mitigation monitoring and maintenance activities to ensure compliance with federal, state and county environmental permits.

d.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Florida Panther Prey Survey for the Everglades Agricultural Area (EAA) Conveyance and Regional Treatment (ECART), EAA Compartment B and EAA Compartment C Projects of the Comprehensive Everglades Restoration Program (CERP) Palm Beach County, Florida	PROFESSIONAL SERVICES: 2008	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Principal investigator. Organized and conducted extensive panther prey (deer and feral hog) track surveys and reporting for approx. 16,000 acres in western Palm Beach County in accordance with U.S. Fish and Wildlife guidelines in connection with the U.S. Army Corps of Engineers (USACE) 404 permit application.

e.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
N.W. 74th Street, Miami, PD&E Study and Environmental Permitting, FDOT, District VI Miami Dade County, Florida	PROFESSIONAL SERVICES: 2004-2006	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Principal Investigator. Performed environmental tasks associated with the conductance of a PD&E Study. Tasks included preparation of a WER, ESBA, CSER, NSR, AQR and an EA and FONSI for submittal to FHWA (including public involvement) for proposed roadway improvement and new roadway alignment alternatives. Also, prepared and submitted environmental resource permit applications through the SFWMD and the USACE and obtained permits for proposed improvements.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
David K. Cabage, CCC	Cost Estimating	a. TOTAL: 28	b. WITH CURRENT FIRM: 23

15. FIRM NAME AND LOCATION (City and State)
URS Corporation Southern *(Tampa, Florida)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
BS/Building Construction/1986 AS/Engineering Preparation/1992	Certified Cost Consultant/ Association for the Advancement of Cost Engineers International (aace®)/#1260

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

Mr. Cabage is experienced in cost estimating and scheduling for all types of projects undertaken by our firm. Estimates involve all Construction Specifications Institute divisions from conceptual plans through finish, including change orders and claims. He is proficient in the use of most estimating and scheduling software (i.e., Timberline Estimating and Job Costing, Primavera, Microsoft Project). Project types have included buildings, highways, bridges, airports, transit, rail, ports, military installations, and commercial and mixed-use complexes. He is proficient at estimating mechanical/electrical/plumbing (M/E/P) trades. He can also provide operations costs, life cycle cost analysis, value engineering support, claims analysis, disaster damage assessments and costing.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Aquarius Sea Base Lab Decommissioning Study and Environmental Permitting, NOAA, Monroe County, Florida	PROFESSIONAL SERVICES: 2014	CONSTRUCTION *(If Applicable)*: 2008
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Chief Estimator/Scheduler, Responsible Environmental Project Manager for this highly technical, multi-phased project, which includes the potential decommissioning of the NOAA Aquarius Sea Base Laboratory in the Florida Keys National Marine Sanctuary. Prepared the cost estimates for the proposed decommissioning/transfer of ownership.

a.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Cutler Flow Way, SFWMD – BBCW Dade County, Florida	PROFESSIONAL SERVICES: 2008	CONSTRUCTION *(If Applicable)*: 2008
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Chief Estimator/Scheduler, Responsible for a project to construct a 400 cfs pump station, access road, bike path, outfall channel, two box culvert bridges and spreader swales. Approximate construction value was $17 million.

b.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
On-Call Services Contracts, Jacksonville Corps of Engineers Florida, Virgin Islands, Puerto Rico	PROFESSIONAL SERVICES: Ongoing	CONSTRUCTION *(If Applicable)*: Various
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Chief Cost Estimator. Has provided or supervised preparation of cost estimates for all task orders under URS' four consecutive indefinite quantity contracts with USACE Jacksonville for services involving primarily civil works (such as canal and levee flood control systems, navigation locks, environmental restoration / improvements, and bridges) and building renovations. Specific projects in Florida included Cedar Hammock (Wares Creek) flood control improvements in Manatee County, Shady Oaks and The Rocks Fish Camp evaluations on Lake Kissimmee, Kissimmee River environmental restoration / improvements, proposed Herbert Hoover Dike rehabilitation, the W.P. Franklin Lock guide wall replacement, and the award-winning Palm Valley Bridge replacement in north Florida. (Construction Cost: varied with each assignment)

c.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Sanibel Causeway Projects Lee County, Florida	PROFESSIONAL SERVICES: 2008	CONSTRUCTION *(If Applicable)*: 2008
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Chief Cost Estimator. Responsible for cost estimating for several projects to construct new toll bridges to Sanibel Island, a toll plaza facility, public restrooms, and boat ramp. The project included design features to accommodate adjacent marine life and aesthetics. (Construction Cost: $133M)

d.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Solid Waste Authority - Materials Recycling Facility Palm Beach County, Florida	PROFESSIONAL SERVICES: 2008	CONSTRUCTION *(If Applicable)*: 2008
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Chief Estimator, Responsible for proving support for value engineering study on a 137,000-square-foot solid waste sorting/processing facility. Scope of services included estimating issues and providing constructability input on these issues. Approximate construction value was $28.6 million.

e.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Deering Estate, SFWMD - BBCW Dade County, Florida	PROFESSIONAL SERVICES: 2008	CONSTRUCTION *(If Applicable)*: 2008
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Chief Estimator/Scheduler, Responsible for a project to construct a 100 cfs pump station, inlet flow way channel, outfall piping and spreader structure, and educational wetlands. Approximate construction value was $4.9 million.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Chip Day	Mitigation Design & Permitting Mitigation Assessment & Management Plan	a. TOTAL 14	b. WITH CURRENT FIRM 7

15. FIRM NAME AND LOCATION (City and State)
URS Corporation Southern *(Boca Raton, FL)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
MBA/International Business Management and Marketing M.S./Environmental Science B.S./ Urban/Regional Planning	

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
URS Dive Safety Officer (DSO)/ Scientific Diver (2008-Present); PADI Rescue Diver/Advanced OW/ NITROX certifications, URS Certified Project Manager; FWC Approved Manatee Observer (2006-present) First Aid/CPR/AED (2009 - Present), HAZWOPER (2008 – Present)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)
Aquarius Sea Base Lab Decommissioning Study and Environmental Permitting, NOAA
Monroe County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012-2014	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Environmental Project Manager for this highly technical, multi-phased project, which includes the potential decommissioning of the NOAA Aquarius Sea Base Laboratory in the Florida Keys National Marine Sanctuary. Prepared the environmental reports and permit applications for submittal to NOAA and Florida International University for the proposed decommissioning/transfer of ownership.

b.

(1) TITLE AND LOCATION (City and State)
Port of Miami Tunnel NEPA Documentation/Benthic Resource Survey, FDOT, District VI
Miami-Dade County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2008 - 2009	2014

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Scientific Diver. NEPA EA/FONSI Reevaluation for the $1-billion Port of Miami Tunnel project. Coordinated the NEPA EA/FONSI documentation to evaluate engineering design changes and biological considerations. Under separate task, managed field efforts to determine the limits of seagrass, coral and other benthic resources within, and adjacent to the project footprint and within the potential areas of affect (approximately 400 acres) and the writing of the benthic resource survey report

c.

(1) TITLE AND LOCATION (City and State)
6-inch Miami Beach Lateral Biscayne Bay, Florida Gas Transmission Company
Miami-Dade County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2009-2013	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Senior Environmental Scientist and diver responsible for environmental resource permitting tasks associated with the placement of concrete mats on 10 exposed segments of existing submerged Florida Gas Transmission pipeline located in the Biscayne Bay Aquatic Preserve. Tasks include conducting a 14-day underwater marine benthic resources survey, applying for and obtaining federal, state and local agency permits, planning and constructing seagrass mitigation, mitigation monitoring, resolving SSL issues, preparation of EFH Assessment and a marine species Biological Assessment. During construction, oversaw field staff responsible for threatened and endangered species observations and water quality monitoring.

d.

(1) TITLE AND LOCATION (City and State)
SR 5/Overseas Highway/Long Key Bridge V-pier Replacement Project, FDOT, District VI
Monroe County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2011-2014	

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Environmental Task Manager for large-scale environmental resource permitting project replacing V-piers along the Long Key Bridge in the Florida Keys. Regulating and commenting agencies include USCG, NOAA/NMFS, USACE, USFWS, NOAA-Florida Keys National Marine Sanctuary and SFWMD. Served as DSO and dive lead on the benthic survey to determine the extent of seagrass and corals, fish and other benthic organism utilization, agency coordination, preparation of all environmental permit applications, habitat assessment, the Essential Fish.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Edward Marks, PG	Environmental Assessment & Benthic Surveys	a. TOTAL: 15	b. WITH CURRENT FIRM: 13

15. FIRM NAME AND LOCATION (City and State)
URS Corporation Southern *(Miami, FL)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
BS/2001/Geological Sciences/Florida State University BS/2001/Environmental Studies/Florida State University Minors: Marine Biology, Botany, and Math	2008/Florida Professional Geologist No. 2553 2008/Stormwater Management Inspector

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
2014 Emergency Management Maritime/Coastal Environments; 2014 American Academy of Underwater Scientists; 2012 OSHA Hazwoper Instructor; 2009 NAUI Rescue Diver; 2006/Caterpillar Forklift Operator; 2004/STL 8-hour FDEP Groundwater Sampling Methods; 2002/NAUI Nitrox Diver; 2001/OSHA 40-hour Hazmat; 2001/Boat USA Boating Safety; 1995/PADI Open Water Diver

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Biscayne Bay Aquatic Preserve 6-inch Lateral Rehabilitation, Florida Gas Transmission Company Miami-Dade County, Florida	PROFESSIONAL SERVICES: 2006-Present	CONSTRUCTION *(If Applicable)*

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE — **[X]** Check if project performed with current firm

Project Environmental Scientist and Lead Diver responsible for environmental-related tasks associated with the placement of concrete mats on 10 exposed segments of existing submerged pipe (segment length varies up to 600 linear feet) located in the Biscayne Bay Aquatic Preserve. Tasks include conducting an intensive 14-day underwater marine benthic resources survey using SCUBA, applying for and obtaining federal, state and local agency permits, planning and constructing seagrass mitigation (prop scar restoration), mitigation monitoring, resolving SSL issues, preparation of EFH Assessment and a marine-species Biological Assessment.

b.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Chevron Pipeline Construction, Jean Lafitte National Historic Park and Preserve New Orleans, Louisiana	PROFESSIONAL SERVICES: 2012	CONSTRUCTION *(If Applicable)*

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE — **[X]** Check if project performed with current firm

Project Environmental Inspector/Safety Leader during pipeline construction activities through the Jean Lafitte National Historic Park and Preserve. The project consisted of dredging, trenching, and horizontal directional drilling through 0.55 miles the preserve. The project required removal, storage and replacement of the floating vegetation from project corridor so construction of the 24 inch petroleum pipeline could be accomplished within the wetlands of the preserve. The responsibilities also included monitoring of all work activities within the park to reduce the potential of damage to the park.

c.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Calypso U.S. Pipeline – Grand Bahama Island, Bahamas to Port Everglades, Fort Lauderdale, Florida	PROFESSIONAL SERVICES: 2009	CONSTRUCTION *(If Applicable)*

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE — **[X]** Check if project performed with current firm

Project Environmental Scientist for the preliminary assessment and environmental impact analysis necessary to apply for and subsequently modify environmental permits from the USACE, FDEP and Broward County for the U.S. portion of a proposed 90-mile pipeline from Grand Bahama Island, Bahamas to Ft. Lauderdale, Florida. The project included an extensive alternatives analysis evaluating trenching, directional drilling, and tunneling alternatives resulting in an approximate 3-mile mined 10-foot diameter tunnel beneath the nearshore coral reef systems.

d.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Port Everglades 16-inch Lateral Relocation, Florida Gas Transmission Company Broward County, Florida	PROFESSIONAL SERVICES: On-going	CONSTRUCTION *(If Applicable)*

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE — **[X]** Check if project performed with current firm

Environmental Scientist / Geologist conducting extensive contamination assessments, subsurface investigations (geotechnical and contamination-related), compliance tasks associated with the relocation of a 1,580-foot segment of pipeline along Eller Drive in Port Everglades, Broward County, Florida. Tasks included contamination assessments and sampling, erosion control, sheet pile structural integrity analysis, construction dewatering permitting and hydrostatic testing permitting.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Damon C. Quesenberry	LIDAR / GIS	a. TOTAL: 10	b. WITH CURRENT FIRM: 10

15. FIRM NAME AND LOCATION (City and State)
URS Corporation Southern *(Miami, FL)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
BS/2003 /Environmental Management /University of Florida	

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)
Calypso U.S. Pipeline – Grand Bahama Island, Bahamas to Port Everglades, Fort Lauderdale, Florida
Fort Lauderdale, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2009 — CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

GIS Specialist for tasks associated with proposed 90-mile pipeline from Grand Bahama Island, Bahamas to Ft. Lauderdale, Florida. The project included an extensive alternatives analysis evaluating trenching, directional drilling, and tunneling alternatives resulting in an approximate 3-mile mined 10-foot diameter tunnel beneath the nearshore coral reef systems.

b.

(1) TITLE AND LOCATION (City and State)
Gulf South Pipeline Abandonment, Alabama, Gulf South
Southern Alabama

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2005 — CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

GIS Specialist for tasks associated with abandonment of an existing 40-mile section of the Gulf South Pipeline in southern Alabama.

c.

(1) TITLE AND LOCATION (City and State)
Port Everglades 16-inch Lateral Relocation, Florida Gas Transmission Company
Fort Lauderdale, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: Current — CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

GIS Specialist for tasks associated with the relocation of a 1,580-foot segment of pipeline along Eller Drive in Port Everglades, Broward County, Florida.

d.

(1) TITLE AND LOCATION (City and State)
South Florida Water Management District Compartments B and C
SFWMD, Hendry & Palm Beach Counties, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2012 — CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

GIS Specialist. Managed and implemented the GIS analysis and mapping effort for the South Florida Water Management District's (District) Everglades Agricultural Area Compartments B and C Buildout Projects. Calculated, documented, and mapped various environmental impacts that are proposed to take place within the 6,400-acre Compartment C parcel located in eastern Hendry County and the 7,800-acre Compartment B parcel located in western Palm Beach County.

e.

(1) TITLE AND LOCATION (City and State)
Miami-Dade County Department of Environmental Resource Management
Miami-Dade County, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: On-going — CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

GIS Specialist. Currently managing and implementing the GIS analysis and mapping effort for the Miami-Dade County Department of Environmental Resource Management Environmentally Endangered Lands (EEL) Program. The effort includes identifying Miami-Dade County's best and most endangered environmental lands for acquisition and management by evaluating the biological characteristics and viability of the resource, the vulnerability of the resource to degradation or destruction, and the feasibility of managing the resource to maintain its natural attributes.

f.

(1) TITLE AND LOCATION (City and State)
Florida Gas Transmission Phase VIII Expansion
Miami-Dade County, Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2011 — CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

GIS Specialist for tasks associated with construction of 5.39 miles of new 12-inch natural gas pipeline connecting to an existing compressor station.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Valerie Chartier	Environmental Resources & Impact Minimization	10	8

15. FIRM NAME AND LOCATION (City and State)

URS Corporation Southern *(Miami, FL)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
MBA/2008/Business Administration and Environmental Management/Florida Atlantic University BS/2005/Environmental Science Major (Political Science and Biology Minors)/University of Miami	

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training,)

URS Certified Project Manager, 2008
OSHA 40-Hour Health and Safety Training, June 2006; OSHA HAZWOPI
FDEP Florida Stormwater Erosion and Sedimentation Control Inspector C
FDOT ETDM Overview Training, February 2007
FDOT PD&E Process Training, April 2007
FERC Environmental Review and Compliance Training, 2011
CPR Certification, 2007, 2009
First Aid/Oxygen Administration, 2007

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)
Cape Sable Canals Dam Restoration Environmental Assessment, Permitting, and Mitigation Monitoring – Phase I
Monroe County, National Park Service

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: On-going; CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Senior Biologist for all tasks associated with the preparation of an Environmental Assessment and Finding of No Significant Impact for the restoration of two failed canal dams in the Cape Sable area of Everglades National Park (Homestead Canal and East Cape Extension Canal). Tasks include field review, agency coordination, internal and public project scoping, and preparation of the EA and FONSI for submittal to the NPS. Second stage of the project included all aspects associated with successful issuance of all local, state, and federal environmental permits for the project. Current tasks include 5 years of mitigation monitoring at the dam sites.

b.

(1) TITLE AND LOCATION (City and State)
Miami Beach 6-inch Lateral Exposed Pipe Cover
Biscayne Bay, Florida

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2012; CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Environmental task manager for Phase I / Project manager for Phase II: Scope included environmental field work and permitting-related tasks associated with laying Submar concrete mattresses on exposed segments of existing submerged located in the Biscayne Bay Aquatic Preserve, which is also classified as an Outstanding Florida Water. Tasks included conducting intensive underwater benthic resources surveys to identify and map (in GIS) submerged resources within proximity of each exposed segment. Results of the survey were used to apply for and obtain federal, state, and local agency permits. A seagrass bed restoration project is also being conducted within Biscayne Bay Aquatic Preserve as mitigation for the project construction impacts.

c.

(1) TITLE AND LOCATION (City and State)
FDOT Districtwide Misc. Permitting Services Consultant
FDOT, District 6

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: Ongoing; CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

Environmental specialist in support of the districtwide environmental permitting services contract, including activities and other environmental-related studies for various large and small-scale FDOT roadway improvement, new roadway, bridge replacement/improvement, boat ramp restoration and tunnel projects throughout Miami-Dade and Monroe Counties in Florida. Tasks include conducting seagrass/benthic resource surveys, marine and freshwater wetland assessments and delineations, upland assessments, protected plant and wildlife surveys and assessments, federal/state/county agency coordination, environmental resource permitting, stormwater management permitting, Class V Deep Well permitting, obtaining sovereign submerged lands easements, GIS mapping, wetland and T&E species mitigation planning and design, permit tracking, erosion control, engineering plan reviews, dewatering permitting, water quality assessments, NEPA studies/re-evaluations, in-house technical and administrative assistance, Essential Fish Habitat assessments, and protected plant and wildlife biological surveys/assessments.

d.

(1) TITLE AND LOCATION (City and State)
Tamiami Trail Modifications: Next Steps, Environmental Impact Statement
Miami-Dade County, National Park Service

(2) YEAR COMPLETED: PROFESSIONAL SERVICES: 2011; CONSTRUCTION *(If Applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE

[X] Check if project performed with current firm

NEPA specialist for all tasks associated with the preparation of an Environmental Impact Statement for bridging of sections of the Tamiami Trail to allow for restored water flows from the SFWMD Water Conservation Areas north of Tamiami Trail to Everglades National Park south of Tamiami Trail. Tasks included field review, agency coordination, internal and public project scoping, and preparation of a DEIS and FEIS.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Keith Stannard	Environmental Resources & Impact Minimization	a. TOTAL: 21	b. WITH CURRENT FIRM: 14

15. FIRM NAME AND LOCATION (City and State)
URS Corporation Southern *(Miami, FL)*

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
1996 / Graduate Studies / Coastal Zone Management & Marine Biology / NOVA 1991 / BS / Biological Sciences / State University of New York at Stony Brook	

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Trainin	
2013/Federal Energy Regulatory Commission Certification 2013/Chamber of Commerce Env. Permitting Summer School 2013/OSHA 40-Hour Health and Safety Training 2005/FDEP UMAM	1998/TREEO – T&E Species of Florida 1997/Cert. of Appreciation, NOVA Ctr. for Appl. Res. & Develop. 1996/USACE Wetlands Delineation Cert. Training 1994/FDOT Wetland Evaluation Technique (WET II) Training 1992/PADI Rescue Scuba Diver

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Broward County Aviation Department (BCAD), Fort Lauderdale-Hollywood International Airport Expansion Program Broward County, Florida	PROFESSIONAL SERVICES: On-going	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Senior Scientist. Conducted ecological assessments, extensive regulatory agency coordination including the Florida Park Service, wetland determinations and functional assessments, 30–day T&E flora and fauna surveys, federal, state and local agency environmental permitting, on-site and off-site mitigation planning and design including preparation of mitigation construction plans for a 45-acre marine system incorporating exotic species eradication, site grading, hydrologic improvements (replacing and installing new culverts, dredging water conveyance channels, etc.), mangrove planting, and tidal pool, mud flat, and upland hammock creation for mitigation at Hugh Taylor Birch State Park and a 30-acre everglades matrix freshwater slough and marsh system in western Broward County for the Airport-wide Expansion Program including the Westside Redevelopment Phase, the Taxi Lot Phase, and the Terminal Access Roadway Phase. Currently assisting BCAD with ecological-related tasks including wetland mitigation construction inspections and exotic species control oversight, threatened and endangered wildlife surveys and permitting (including burrowing owl relocations), and environmental permit compliance activities.

b.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Cape Sable Canals Dam Restoration Project, National Park Service Everglades National Park, Florida	PROFESSIONAL SERVICES: Present	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Senior Scientist. Responsible for preparation of an EA for the restoration of two breached dams in Cape Sable, ENP. Tasks include NPS/ENP internal scoping, public and agency scoping/consultation, data collection, data analysis, preparation of the EA and FONSI, environmental permitting, coastal wetland mitigation, T&E species (crocodile, manatee, smalltooth sawfish, etc.) surveys and conservation, EFH Assessment, Section 7 ESA consultation, water quality/turbidity control, construction oversight, and long term mitigation monitoring.

c.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Tamiami Trail 2 EIS, National Park Service Everglades National Park, Florida	PROFESSIONAL SERVICES: 2011	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Senior Scientist. Conducted Environmental Impact Statement for Tamiami Trail 2 project (enabling Northeast Shark River Slough Restoration). Responsible for all tasks associated with the preparation of an Environmental Impact Statement for modifications of sections of the US 41/Tamiami Trail to allow for restored water flows from the SFWMD Water Conservation Areas north of Tamiami Trail to Everglades National Park south of Tamiami Trail. Tasks included field review, agency coordination, project scoping and public involvement, alternatives development, environmental consequences assessments, mitigation planning, and preparation of the Draft and Final EIS documents for submittal to NPS and the U.S. Congress.

d.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
16-inch Port Everglades Natural Gas Pipeline Lateral Relocation, Florida Gas Transmission Company/Piedmont NG, Inc. Broward County, Florida	PROFESSIONAL SERVICES: 2011	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Senior Scientist. Managing environmental permitting tasks associated with the relocation of a 1,580-foot segment of pipeline along Eller Drive in Port Everglades, Broward County, Florida. Tasks included wetland evaluations and permitting, T&E species reviews, contamination assessments and sampling, erosion control, sheetpile structural integrity analysis, construction dewatering permitting and hydrostatic testing permitting.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Christopher Reed, PhD	Dredging Modelling & Analysis	26	18

15. FIRM NAME AND LOCATION *(City and State)*
URS Corporation Southern, *(Tallahassee, FL)*

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Post Doctorate Studies, Coastal Engineering Department / UF PhD / Engineering Science and Mechanics / University of Florida MS / Engineering Science and Mechanics / University of Florida BS / Engineering Sciences / Georgia Institute of Technology	Florida/Professional Geologist Arkansas/ Professional Geologist Alabama/Professional Geologist

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Dr. Reed has 20 years' experience in conducting coastal and oceanographic hydrodynamic, wave, sediment transport and water quality studies, feasibility studies and design analysis. His modeling experience includes surge modeling, sediment transport, coastal zone transport including inlet and surf zone dynamics, Total Maximum Daily Load (TMDL) development, water quality assessment, etc.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
M3D Circulation and Sediment Transport Modeling
Columbia River

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2006	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Coastal Engineer. Dredge material obtained from dredging the Columbia River and adjacent areas has been deposited in a number of placement areas offshore of the river mouth. These areas were selected due to their highly dispersive characteristics. URS has applied the M3D circulation and sediment transport model to help understand the existing transport patterns and rates and using the calibrated model to investigate alternate disposal plans, areas, and jetty designs.

b.

(1) TITLE AND LOCATION *(City and State)*
Calypso Pipeline Crossing Sedimentation and Turbidity Study
Port Everglades, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2003	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project Manager. Assessed the sedimentation and turbidity plume generation associated with a proposed pipeline dredging project.. 20+ different dredging scenarios were evaluated to determine the costs and impacts associated with various alternatives. The M2D model was modified to incorporate surface current forcing and used to provide detailed currents in the study area for two-week periods. Then a URS developed 3D sediment transport to estimate the impact of suspended sediment concentrations due to the proposed dredging operations. The models were implemented for each scenario to predict the extent of sedimentation and the turbidity plume. Results were compared to water quality standards to access the total impact.

c.

(1) TITLE AND LOCATION *(City and State)*
USACE and Port of Gulfport Dredge Material Disposal Study
Gulfport, Mississippi

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2008	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Coastal Engineer. Sediment transport study to determine the feasibility of disposing over 2.5 million cubic yards of dredge material offshore of Mississippi Sound. The study determined the feasibility of placing the dredged sediments within the disposal area boundaries and the long term stability of the disposed sediments. A combination of USACE supported models and models developed by URS were used to conduct the evaluation. Specialized erosion test were conducted to determine key model input parameters. The results indicated that the material could be placed within the disposal are without creating a navigation hazard, but some of it may be mobilized and moved off site within a one year time period.

d.

(1) TITLE AND LOCATION *(City and State)*
Matagorda Ship Channel Dredging Sediment Transport Modeling
Matagorda Bay

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2008	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Coastal Engineer. Matagorda Ship Channel planned new work to deepen and widen the existing navigation channel through Matagorda Bay and Lavaca Bay. It is expected that the maintenance dredging requirements will increase due to the project. URS has investigated the transport of the fine sediments comprising the channel shoaling and conducted analysis to determine the fate of the increased maintenance dredging. The primary objectives of the analysis were to determine if the existing placement areas could still be used without increasing the recycling of the dredged material into the channel, and if the placement areas would experience a build-up of sediments.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Rajesh Srinivas, Ph.D., P.E., D.CE	Quality Assurance and Control/Coastal Engineer	24	2

15. FIRM NAME AND LOCATION *(City and State)*

G.E.C., Inc., Jacksonville, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Ph.D., 1993, Coastal and Oceanographic Engineering M.S., 1989, Coastal and Oceanographic Engineering B.S., 1986, Mechanical Engineering	Professional Engineer (Civil Engineering: FL, 1999)

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)* **Including six years of research at the University of Florida Dr. Srinivas has worked on coastal zone management and dredging engineering issues in Florida since 1987. His project experience includes the numerical and analytical modeling of coastal and estuarine processes; and the planning, design, permitting, and monitoring of coastal engineering, shore protection, navigation, dredging, coastal structures, hydraulics, hydrology, water quality, and environmental projects. Author of over 80 technical reports and peer-reviewed papers, he has extensive consulting experience with global public and private sector clients.**

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Jacksonville Harbor Navigational Channel Deepening Project, Duval County, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2013; CONSTRUCTION *(if applicable)*: 2016 (expected)

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [ ] Check if project performed with current firm

Since 2009, responsible for quality assurance and control and project management services for multiple task orders from the Jacksonville District US Army Corps of Engineers (USACE). Work consisted of data collection of water surface elevation, waves, and water quality; and the application of EFDC, MIKE21, and ADCIRC models to assess and document potential changes in hydrodynamics, water levels, salinity, and marsh attributable to deepening the channel from its current 40 ft. depth up to 50 ft.
Cost: About $1,000,000 Role: Principal-in-charge, QA/QC, project manager

b.

(1) TITLE AND LOCATION *(City and State)*: Engineering and Environmental Services, St. Augustine Port, Waterway, and Beach District, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2013; CONSTRUCTION *(if applicable)*: 2005-2012

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [ ] Check if project performed with current firm

Since 2005, principal-in-charge responsible for all engineering projects conducted under the master contract. Example projects include the design, permitting, and/or construction administration services for a floating dock in Lighthouse Park, navigational channel maintenance dredging of about 50,000 cubic yards of sediment at Salt Run, a dune management project in St. Augustine Beach, and a navigation channel in Sebastian River.
Cost: About $400,000 Role: Principal-in-charge, QA/QC, project manager, designer, grant management

c.

(1) TITLE AND LOCATION *(City and State)*: Ft. Pierce Beach Shore Protection Project, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2013; CONSTRUCTION *(if applicable)*: 1999-2012

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [ ] Check if project performed with current firm

Since 1997, provided St. Lucie County – the local sponsor – design, permitting, monitoring, and interagency coordination services for dredging and beach restoration as part of the federal shore protection project. The project includes dredging over 3,800,000 cubic yards of sand dredged from Capron Shoal in 2003, 2004, 2005, 2007, 2009, and 2012.
Cost: About $2,000,000 Role: Principal-in-charge, QA/QC, project manager, designer

d.

(1) TITLE AND LOCATION *(City and State)*: Coastal Engineering and Environmental Services, Palm Beach County, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2013; CONSTRUCTION *(if applicable)*:

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [ ] Check if project performed with current firm

Principal-in-charge responsible for client coordination and quality management services on all projects under the master contract. Example projects include dredging and beach restoration permitting and design, Section 934 report preparation, and Beach-fx modeling for the Jupiter/Carlin federal shore protection project; environmental monitoring; and design and permitting of coastal structures for improving Dubois Park located in Jupiter Inlet.
Cost: About $600,000 Role: QA/QC, agency coordination

e.

(1) TITLE AND LOCATION *(City and State)*: Dredging-Related Services, Florida Inland Navigation District, Various Locations, East Coast of Florida

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2013; CONSTRUCTION *(if applicable)*: 1996-2013

(3) BRIEF DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE [ ] Check if project performed with current firm

Prepared dredged material management plans for FIND sites in Volusia and Martin Counties. Provided permitting, design, and construction management services for dredging and construction of dredged material management areas for sites near Matanzas Inlet, St. Lucie Inlet, and Ponce DeLeon Inlet. Advised FIND on ramifications of new state-developed inlet managements plans. From 2004 through 2011, oversaw staff responsible for permitting, design, and construction of multiple dredging events and dredged material management sites all along the Atlantic Intracoastal and Okeechobee Waterways.
Cost: Over $5,000,000 Role: Principal-in-charge, QA/QC, project manager, designer, modeler

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		1a. TOTAL	b. WITH CURRENT FIRM
Thomas Mullin, PE	Geotechnical Investigation & Sampling	34	1

15. FIRM NAME AND LOCATION *(City and State)*

RADISE International, LC *(Riviera Beach, FL)*

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Master of Science / Geotechnical Engineering Bachelor of Science / Civil Engineering	Professional Engineer, #43366 (Florida), 1990

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Society of Civil Engineers, Association of Dam Safety Officials, Deep Foundations Institute, Certified URS Project Manager

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Port Everglades Widening Dredging Project & Dania Cut-Off Canal Feasibility Study Broward County, Florida	2002	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — Check if project performed with current firm

To facilitate the USACOE's and the Port's assessment of the relative difficulty of dredging operations and the potential need for blasting activities, URS performed a geotechnical subsurface investigation to explore the subsurface soil and rock conditions underlying the proposed project areas. Several borings were drilled within the respective waterways from the "spud barge" shown in the figure above. All field investigation work was performed under the direct observation of an experienced URS field engineer/inspector at all times. Lead Principal Geotechnical Consultant.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Rokers Point Marina Geotechnical / Civil Design Consultant Exuma Island, Bahamas	2002	2005

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — Check if project performed with current firm

Provided geotechnical engineering investigation and civil design services for the design and construction of the Rokers Point Marina on Exuma Island in the Bahamas. Coastal designs were required for entrance area jetty protection against off shore wave generation and migration into the marina. Interior marina slopes were evaluated for vertical cut stability and designs were prepared for erosion mitigation of exposed slopes in the splash zone. Civil designs were prepared for the configuration of the marina and docking facilities. Period site visits and inspections were provided during the construction phase of the marina excavation and near shore jetty protection. Principal Design Consultant.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Lake Trafford Dredging / Spoils Containment Facility (1500 Acre) Lake Trafford, Collier County, Florida	2011	2011

Managed the Civil design preparation for three (3) phases of the lakes dredging. Design work included preparation of the civil designs of the projects inland Confined Disposal Facility (CDF) as well as the phased dredging of the lakes interior 1000-acres followed by the perimeter, near shore shallow 500-acre designated work areas. Dredging removed over 3 feet of muck sediments from the lake with significant improvements in lake quality and vegetation habitat. Managed/QC checked all drawings and specifications and authored the Basis of Design Reports for each project. Principal Design Consultant.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) Years Completed	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
North Lake Dredge Feasibility Study City of Hollywood, Florida	2006	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — Check if project performed with current firm

Provided project feasibility and design study for dredging North Lake, a 84-acre manmade tidal lake that serves as the center of the City's public boating area. Conducted an evaluation of the environmental characteristics of the spoil material and helped determined the most economical disposal methodologies and alternatives. Lead Principal Geotechnical Consultant.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) Years Completed	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
SFWMD Compartment C, Stormwater Treatment Area Projects, Hendry County, Florida	2011	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — Check if project performed with current firm

Managed the civil design development of 6240 Acres of impounded manmade wetlands in a large Stormwater Treatment Area flow Way. The design included over 18 miles of 8' – 10' high levees and 18 gated flow control RCB Culverts constructed within the impoundment levees to direct stormwater through manmade filtering wetlands constructed over the Everglade peats. Directed field geotechnical investigation programs and designs including the drilling and testing over 100 borings. Directed civil construction plans and specifications development. Managed and QC checked all drawings and specifications and authored the Basis of Design Reports for each project. Lead Principal Civil Design Mgr and Geotechnical Consultant

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Michael P. Donovan, Jr.	Hydrographic Survey Specialist	16	10

15. FIRM NAME AND LOCATION *(City and State)*

Sea Diversified, Inc. (Delray Beach, Florida)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Salem State College (Salem, MA) Computer Sciences	

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mr. Donovan has over 16-years of experience with hydrographic & topographic surveying. He has experienced all manners of project management from procurement, contract negotiations, planning, field implementation, data processing, chart production, and final reviewing. He has been with our team through much of his experience, and fully understands all aspects of our organization to help assure only the highest-quality product delivered in a timely manner. Mr. Donovan has extensive expertise in the latest technology for automated hydrographic data collection, as well as remote sensing equipment including side scan sonar, magnetometer and sub-bottom profilers. For underwater investigations, Mr. Donovan is a certified Nitrox Diver, participating in underwater video and inspections, underwater mapping for environmental projects, tide/wave/ current investigations, and various other diver-assisted surveys.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
USACE Palm Beach Harbor Maintenance Dredging Project, Hydrographic (Bathymetric) Surveys, Pre- and Post-Dredge Surveys & Final As-Builts
Palm Beach County Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Survey Specialist responsible for: ~Pre- and post-dredge hydrographic (bathymetric) surveys of channel ~Pre- and post-construction onshore and offshore beach profile surveys from landward of the existing vegetation line seaward to 1,500 feet from the R-Monument Baseline ~Conducted with Southwind Construction (2007), B+B Dredging (2008), and Cashman Dredging (2012) for US Army Corps of Engineers - Jacksonville District

b.

(1) TITLE AND LOCATION *(City and State)*
USACE Rose Bay Aquatic Ecosystem Restoration and Lost Creek Island Spoil Island Construction
Port Orange, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2011	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Survey Specialist responsible for: ~A restoration of inter-tidal and sub-tidal benthic substrate and hydrologic processes within Rose Bay by removing up to approximately 152,000 cubic yards (cy) of unconsolidated sediment from the Bay in Volusia County, Florida ~Pre-, during, and post-dredge hydrographic (bathymetric) surveys of dredge area at Rose Bay ~Pre- and post-construction topographic surveys and construction layout of spoil island levee and rock filter, approximately 4,400' long from elevation 0' to 28' NGVD29 ~Redline and Final as-built preparation ~Conducted with Optimum Services, Inc. for US Army Corps of Engineers, Jacksonville District

c.

(1) TITLE AND LOCATION *(City and State)*
Lake Worth Lagoon - Sediment / Muck Thickness Study
Palm Beach County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2009	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Survey Specialist responsible for: ~Investigation to map and quantify the horizontal and vertical extent of reported sediment / muck deposits within six (6) priority areas of the Lagoon, North & South of C-51 Discharge Canal, and East & West of ICWW Channel encompassing two hundred eighty (280) acres ~Sub-bottom Profile Survey of the Lagoon in the prescribed areas followed by extensive groundtruthing ~Conducted for Palm Beach County ERM

d.

(1) TITLE AND LOCATION *(City and State)*
City of Pahokee Marina and Campgrounds Expansion & Marina Basin Monitoring Surveys
Pahokee, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2009	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Survey Specialist responsible for: ~ Dredge and spoil containment design for the City of Pahokee's multi-phased wet-slip marina ~Included hydrographic (bathymetric) surveys of basin, sediment testing and analysis with preparation of plans and specifications ~Pre- & post-dredge hydrographic surveys ~Topographic surveys to support bulkhead and boat ramp improvements from design through construction ~ Legal description for sovereign submerged land lease and upland park limits ~Topographic surveys of 20,000 linear feet of levee ~ Surveys to support improvements to fixed breakwater ~Conducted for City of Pahokee & Everglades Adventures

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Ron W. Ball	Hydrographic Survey Manager	29	10

15. FIRM NAME AND LOCATION *(City and State)*

Sea Diversified, Inc. (Delray Beach, Florida)

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
University of Puerto Rico, Computer Automated Drafting	

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Mr. Ball has over 29 years of surveying experience throughout the State of Florida, U.S. Virgin Islands, Caribbean, and various regions of South America. He has specific expertise in hydrographic surveying, topographic surveying, geodetic control surveying and remote sensing investigations. He has been involved with numerous large-scale mapping projects encompassing dredging projects, design and construction surveys, bridge scour investigations, submerged utility investigations, beach and nearshore surveys, charting and volumetric evaluations for numerous agencies such as the U.S. Army Corps of Engineers – Jacksonville District, Florida Department of Transportation, and many other government entities. Mr. Ball brings a high-level of detail to our firm, offering professional on-site assessments in addition to coordination of field technicians and data collection methodologies.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
USACE Sandy O & M Supplemental ICWW Dredging 10-Foot Project, Vicinity of Bakers Haulover Inlet, and 11-Foot Project Vicinity of Jupiter Inlet, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Survey Manager responsible for: ~Pre- and post-dredge hydrographic (bathymetric) single-beam surveys of the Intracoastal Waterway (ICWW) in the vicinity of Bakers Haulover Inlet in Miami-Dade County and Jupiter Inlet in Palm Beach County, Florida ~Pre- and post-construction onshore and nearshore beach profile surveys of the fill-area ~Conducted with Southwind Construction for US Army Corps of Engineers, Jacksonville District (USACE)

b.

(1) TITLE AND LOCATION *(City and State)*
Florida Inland Navigation District (F.I.N.D.) Crossroads Maintenance Dredging, Martin County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Survey Manager responsible for: ~Pre- and interim/post-dredge single-beam hydrographic (bathymetric) surveys at Cut-1 of the Okeechobee Waterway (OCWW) and Cut-4 through Cut-6 of the Intracoastal Waterway (ICWW) ~Per environmental permit requirements, data was extended 500-feet beyond the toe-of-channel in each direction of centerline ~Conducted with Southwind Construction for Florida Inland Navigation District (FIND)

c.

(1) TITLE AND LOCATION *(City and State)*
C-51 Sediment Monitoring Surveys
Palm Beach County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2010	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Survey Manager responsible for: ~Hydrographic (single-beam bathymetric) surveys of C-51 canal at Southern Blvd south to Summit Blvd, Summit Blvd south to Forest Hill Blvd, Forest Hill Blvd south and east I-95, I-95 east to S-155 ~Annual surveys, from 2007 through 2010, to monitor the sediment within the C-51 Canal, between Forest Hill Blvd southerly and easterly to the S-155 structure following the 2007 dredging activities ~Conducted with CB&I for Palm Beach County Department of Environmental Resources Management (DERM)

d.

(1) TITLE AND LOCATION *(City and State)*
Florida Inland Navigation District (FIND) New River Study PD&E Bathymetric / Sub-Bottom Profile Surveys,
Broward County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2008	

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☑ Check if project performed with current firm

Survey Manager responsible for: ~Hydrographic (bathymetric) and sub-bottom profile survey throughout 7.9 miles of the New River in support of a study pertaining to the proposed deepening (dredging) of this segment of waterway ~Two-month tide study to determine the mean low water datum for the South Fork of the New River ~Bathymetric (single-beam) data collected along cross sections perpendicular to the centerline of the river, with additional cross-sections at bends in the river and confluences with other waterbodies ~Sub-bottom profile data collected along longitudinal transects to map the sediment characteristics within he proposed dredge cut with specific focus on the upper layer of rock strata that may exist ~Groundtruthing the results of the remote sensing study encompassed sediment probes along the 1000-foot interval cross-sections established for the bathymetric survey ~Conducted with Taylor Engineering for Florida Inland Navigation District (FIND)

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **1**

21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
USACE Critical Project, Lake Trafford Restoration **Collier County, Florida**	2010	2012

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
South Florida Water Management District	Jian Cai, P.E.	561-686-8800, x2542

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Key Elements:

- Dredge design construction drawings and specifications
- Detailed design of a 500 acre Contained Disposal Facility (CDF)
- Geotechnical stability and seepage analyses
- Construction phase services

URS was engaged by the SFWMD to provide design drawings and specifications for dredging of the USACE Critical Project - Lake Trafford Restoration in Collier County, Florida.

The approximate 1500-acre lake was becoming filled with muck sediments, which vary in thickness from 1 to over 3 feet. URS performed undisturbed sampling of the lake's water, muck and lake bed sediments to characterize muck thickness and elevations of muck across the lake. Lake bed and muck elevations were contoured and dredging plan and sections developed for about 1000 acres of the site.

URS' scope of services included the detailed design of a 500 acre Contained Disposal Facility (CDF) for the dredge spoil storage and containment. URS designed a three-phase disposal cell system which allows cells to be alternatively filled and drained/rested therein allowing the deposited muck spoils to consolidate under their self weight thus providing additional storage capacity in the cells.

URS provided detailed geotechnical stability and seepage analyses for the containment embankments in conjunction with the sizing design of the cells considering various sizes of dredges to potentially be used for the work. The completed design includes a polishing pond for final turbidity clarification needs or for the treatment of dredge effluent to meet state water quality for discharge back to Lake Trafford.

URS subsequently provided construction phase services including submittal reviews, bi-weekly progress meeting attendance, water quality monitoring and evaluation, monthly progress reporting and interaction with regulatory agencies and stakeholder meetings

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Boca Raton and Tampa, FL	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **2**

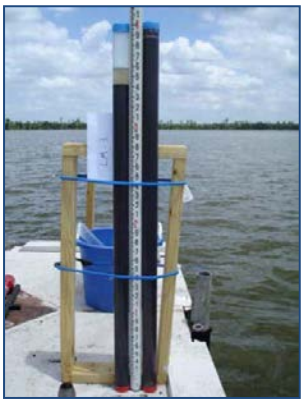
21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Lake Marion - Dredge Feasibility Study **Polk County, Florida**	2008 - 2009	N/A

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida Fish and Wildlife Conservation Commission	Raymond Watson	(863) 647 - 4000

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

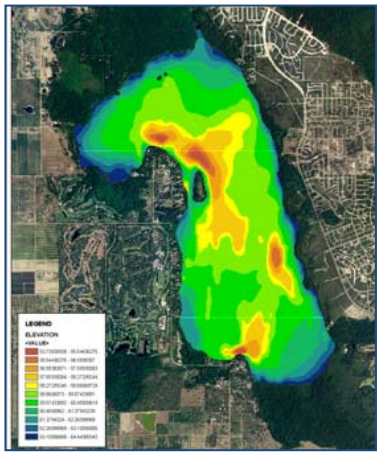
Key Elements:

- Bathymetric survey
- Sediment sampling and analysis
- Upland disposal analysis
- Dredge design construction drawings and specifications
- Innovative dredge approach provided over $50M in costs savings over traditional dredging operation techniques



URS was retained by the Florida Fish and Wildlife Conservation Commission (FWC) to evaluate the feasibility of dredging the muck layer from Lake Marion. Lake Marion is one of the largest lakes (2,995 acres) on the Lake Wales Ridge and is one of ten lakes in Polk County with declining water quality. FWC attributed the suspended muck within the lake, as being responsible for the declining health of the lake which recently transitioned to a eutrophic condition.

One key elements of the project was to accurately map, characterize and profile the lake sediments. Due to the presence of the fine grained organic sediments, the bathymetric survey was conducted using dual frequency sonar sounder in conjunction with ground penetrating radar (GPR) system. Survey results were then verified using hand probes and core samples to further refine and calibrate the bathymetric survey data. The quantity of muck in the lake was calculated to be in excess of 16.5 million cu yd, with muck layers varying in thickness from 0.1-ft to 23.9-ft.



Sediment sampling revealed the lake sediment stratigraphy to consist of a flocculent muck layer, underlained by a gelatinous muck layer, followed by an intermediate layer of peat, with a layer of quartz sand at the bottom. Chemical analysis indicated that arsenic and mercury in some sediment samples exceeded threshold effects levels. Based on assessment results, it was determined that lake's flocculent layer of muck is block out sunlight penetration and is hindering the growth of Submerged Aquatic Vegetation (SAV).

URS also conducted an evaluation of potential upland disposal areas. Several screening criteria were used to identify potential disposal areas which were of sufficient size and with drainage characteristics to support dewatering and temporary or permanent disposal of the dredge material. Several dredging scenarios were evaluated, but due to volume of muck in the lake (16.5 million cu yd), removal would be in access of $50 million.

Therefore, to meet the FWC's objectives to restore the lake's water quality and promote more SAV growth at a more reasonable cost, URS' dredge design team developed and prepared conceptual design plans for an innovative dredging approach which utilizes in-lake sediment capture and lock-up the lake's flocculent muck sediments. URS' innovative conceptual dredge plan was shown to provide over $50 million in cost savings over conventional dredging operations and was accepted by the FWC as the preferred alternative to move forward with pilot testing.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Tampa, FL	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **3**

21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Wilton Manors F.I.N.D. Grant Maintenance Dredging **Wilton Manors, FL**	2007	2007

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER		c. POINT OF CONTACT TELEPHONE NUMBER
City of Wilton Manors, Florida	Patrick Cann	954.390.2131

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Key Elements:

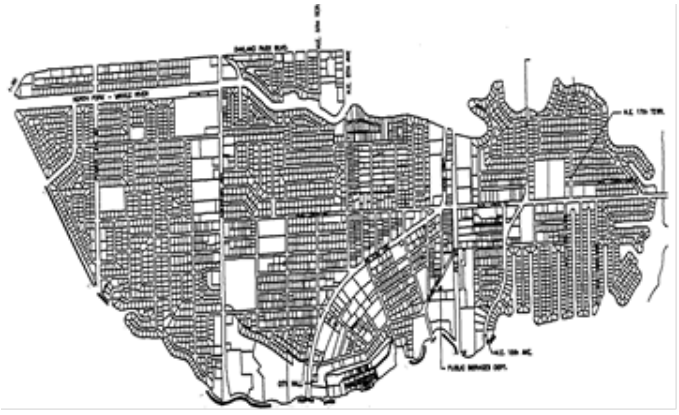
- Dredge design construction drawings and specifications
- Permitting services
- Grant services
- Construction phase services

URS Corporation was retained by the City of Wilton Manors to provide professional civil engineering services for maintenance dredging of previously dredged areas in the South Fork of Middle River, Broward County, Florida

The approximate 6200 linear feet of Middle River was build up with the sediments in some areas so severely that the city was no longer able to maintain the banks or channel, as the maintenance boat was not able to navigate the shallow depths and the marine patrol was unable to patrol the waterway and provide speeding patrols and property security for the residents

URS provided grant services which included application for Florida Inland Navigation District (FIND) grant for canal dredging, as well as the supplemental construction funds for City's proposed boat ramp and neighborhood park project.

URS developed construction drawings and technical specification for the dredging activities on the waterway. Our scope of services also included permitting services.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Boca Raton, FL	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **4**

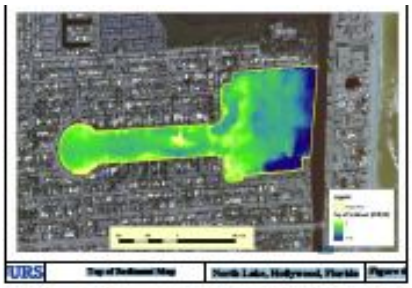
21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
North Lake Dredge Feasibility Study **Hollywood, FL**	2006	N/A

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Hollywood, Florida	Jonathan Vogt. P.E. City Engineer	954-921-3254

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Key Elements:

- Bathymetric survey
- Sediment sampling and analysis
- Excavation alternatives evaluation
- Upland disposal analysis
- Dredge design construction drawings and specifications
- Site-specific Health & Safety Plan



URS was retained by the City of Hollywood to provide the full spectrum of design and engineering services necessary to provide project feasibility and design study for dredging North Lake. The lake is an 84-acre manmade tidal lake that serves as the center of the City's public boating area.

The purpose of this Dredging Feasibility Study was to determine viable options to restore navigational capabilities throughout the lake area. URS conducted the following tasks:

- Established a detailed bottom profile map
- Determined the lake silt layer elevations and underlying rock base levels
- Collected over 50 sediment samples and conduct sediment borings and bearing
- Conducted tests to determine the relative density and composition of the lake material
- Established the most cost-effective means of excavation
- Conducted an evaluation of the environmental characteristics of the spoil material
- Determined the most economical disposal methodologies and alternatives

In addition, URS met with key representatives from the local and state regulatory and permitting agencies to identify potential elements that would have to be addressed prior to receiving regulatory approval to remove sediments from the lake.

Test results revealed that the accumulated sediments in the lake needed to be removed to improve water quality by allowing more water to flush in and out of the lake during each tidal cycle. If the accumulated sediments are not removed, the lake will continue to deteriorate. Therefore URS identified and evaluated 4 feasible dredging options to remove sediments from this lake and submitted a Dredge Feasibility Report.

Additional A/E services included; preparation of a comprehensive work plan, a site-specific Health and Safety Plan that received multi-agency approval. The project also involved successful partnering with state and local agencies—Florida DEP.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Miami, FL	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **5**

21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Flamingo Marina Dredging **Monroe County, FL**	2006	N/A

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
National Park Service, Florida	Mike Savage Supervisory Civil Engineer	(305) 242-7776

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Key Elements:

- Preliminary bathymetric / geophysical assessments
- Sediment sampling and analysis
- Excavation alternatives evaluation
- Upland disposal analysis
- Dredge design construction drawings and specifications
- Water quality monitoring
- Conducted dredging operations
- Permitting services

URS was selected by the National Park Service (NPS) to conduct emergency dredge services which included preliminary bathymetric / geophysical assessments, dredge design development, dredging operations, and permitting services.

As a result of Hurricane Wilma (October 2005), the Flamingo community within Everglades National Park was inundated with an estimated 8-foot storm surge. Damage to facilities in the area was extensive and electrical service wasn't restored until December 10, 2005. After flooding subsided, a blanket of mud was founded covering every surface affected by the surge and much of the Flamingo Marina was filled in with sediment making it useless for boat operations.

The National Park Service needed immediate assistance to remove the sediment from the marina to allow the Park's Search and Rescue (SAR) operations and the Park's Law Enforcement Rangers access to patrol out of Flamingo and protect the natural resources in Florida Bay.

To remedy to situation, NPS retained URS to implement a fast-track solution. URS conducted the following tasks:

- Performed bathymetric survey of marina and access channel
- Collected sediment samples and performed geophysical testing
- Established a detailed bottom profile map
- Calculated mud volumes in the marina
- Developed Sediment Dredging Plans and Specifications
- Established sediment dewatering procedures
- Conducted dredging operations
- Monitored water quality

Due to the remote location of the marina and its direct access to Florida Outstanding Waters, the project required challenging coordination and logistics. All necessary dredging equipment and materials had to be mobilized on-site utilizing a barge and tug from Key Largo and extra precautionary measures were needed to ensure water quality was not impacted during dredge operations. The project resulted in the removal of over 10,000 cu yd of sediments. URS worked closely with the Florida Department of Environmental Protection (FDEP) to allow the dredged sediment to remain onsite and avoid the significant cost of off-site disposal for the client.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Miami, FL	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **6**

21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Lake Hancock Dredging Feasibility Study **Polk County, FL**	2005	N/A

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Polk County, Florida	Larry Madrid, P.E. President, Madrid Engineering Group	863-533-9007

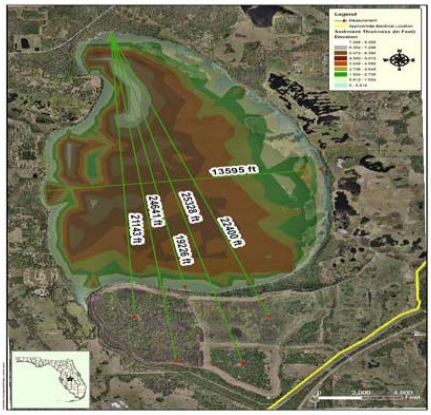
24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Key Elements:

- Developed a comprehensive Work Plan
- Sediment sampling and analysis
- Geo-bag bench scale testing
- Excavation alternatives evaluation
- Evaluation of innovative dredge methodologies
- Developed a handheld GIS/GPS unit input interface

URS was retained by Madrid Engineering Group, Inc. to provide technical assistance with the evaluation of innovative dredge alternatives and sediment dewatering procedures for the removal of over 26 million cu yds of muck from Lake Hancock.

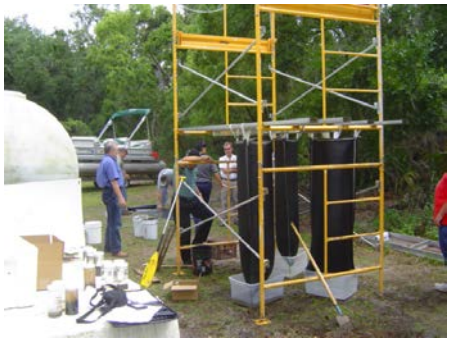
Lake Hancock is a 4,550 acre lake located in central Polk County. The Lake is characterized by poor water quality and an accumulation of sediments. The sediment layer was found to have an average thickness 3.8-ft and a solids content of 15% by weight (containing 42% organics). The basis of this study was to evaluate innovative dredge methodologies, sediment dewatering alternatives and dredge processing and sediment disposal options.



Lake Hancock Distances Map with Sediment Thickness

URS provided technical assistance throughout the project including muck sampling and sediment collection, in-lake muck profiling, geo-bag bench scale testing, evaluation of innovative dredge methodologies and an assessment of environmental constraints.

To reduce cost and streamline data collection, URS' GIS specialists also developed a handheld GIS/GPS unit input interface specifically for this project that allowed the field team to perform the data capture, both spatial and informational, at a very rapid and highly accurate rate. Once the data was collected, URS' GIS specialists were able to provide real-time 3D analysis of the Lake Hancock sediment layer and determine the amount of sediment in the lake.



Findings from this study revealed that dredging Lake Hancock is technically feasible but disposal of dredge sediments would be costly. To offset the sediment disposal costs, three innovative alternatives were developed; 1) Mining Phosphate Ore from beneath the sediment layer, 2) Selling sandy soil beneath the sediment to Polk County Landfill and 3) Processing/Bagging/Selling the dredge sediments as fertilizer. Additional A/E services included; preparation of a comprehensive work plan, a site specific Health and Safety Plan that received multi-agency approval. The project also involved successful partnering with state and local agencies—Florida DEP.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Miami and Tampa, FL	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **7**

21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Emergency Response Services **Dry Tortugas National Park** **Gulf of Mexico, FL**	2006	2006

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
National Park Service, Florida	Mike Savage Park Engineer	(305) 242-7776

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Key Elements:

- Emergency response dredging services
- Sediment sampling and analysis
- Excavation alternatives evaluation
- Special extraction procedures design
- Upland disposal analysis
- Dredge design construction drawings and specifications
- Water quality monitoring
- Conducted dredging operations
- Permitting services

URS was retained by the National Park Service (NPS) to provide emergency response services to address the damage incurred at Fort Jefferson from the 2005 Hurricane season. Located in Dry Tortugas National Park, Gulf of Mexico, approximately 70 miles west of Key West, Fort Jefferson includes seven remote islands, composed of coral reefs and sand.

Storm-driven sands that were pushed to the moat were mechanically dredged from the moat by URS. The material was reused and was relocated to replenish an eroded beach on the southern side of the fort.

URS developed special extraction procedures and provided an on-site geologist to monitor construction activities to ensure the integrity of any undercover artifacts would be maintained. The dredging activities required precise accuracy to ensure the underlying historical artifacts were not disturbed and that the integrity of the historical brick fort structure was not jeopardize during the dredging process.

Following mechanical dredging, dredged material was placed in an upland disposal area on the northern side of the fort and used to replenish the eroded beach front area.

Due to the remote location of the Fort, the project involved challenging coordination and logistics for the mobilization and demobilization of heavy equipment and staff. All necessary dredging equipment, materials and provisions had to be mobilized to the remote Island utilizing specialized marine transport equipment.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Miami, FL	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **8**

21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Port Everglades Widener Dredging Project & Dania Cut-Off Canal Feasibility Study **Broward County, Florida**	2002	

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Port Everglades Department of Broward County	John Fogelsong	954.468.0143

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Working in conjunction with the U.S. Army Corps of Engineers (USACOE) and Port Everglades Authority, URS performed a geotechnical subsurface investigation to explore the subsurface soil and rock conditions underlying the Port Everglades Harbor Turning Basin and the Dania Cut-Off Canal and facilitate the assessment of the relative difficulty of dredging operations and the potential need for blasting activities.

Key Elements:

- Broward County / Port Everglades project
- Geotechnical subsurface investigation

URS drilled several borings the "Widener" project, which was located within the northern portion of the Port, from the "spud barge" shown in the adjacent above.

All field investigation work was performed under the direct observation of an experienced URS field engineer/inspector at all times. Seven (7) borings were drilled within the Widener area and six (6) borings were drilled within the Dania Cut-Off Canal project limits to an average depth of 50 feet below the mudline. Boring locations (i.e., state plane coordinates) were established by URS using a marine Global Positioning System (GPS) unit, featuring Wide Area Augmentation System (WAAS) technology.

Soil and rock samples were obtained throughout the field program were examined and logged to establish site stratigraphy. Following the field investigation, a URS geotechnical engineer reviewed and finalized the field classifications of the samples retrieved. Detailed boring logs were prepared in accordance with USACOE standards. Sieve analyses and sedimentation rate tests were performed on representative samples, as selected by the project geotechnical engineer.

At the direction of the USACOE, six (6) borings were performed on land adjacent to the proposed dredge area within the Southport Access Channel. URS' study included the investigation of subsurface conditions to depths ranging from 88 feet (north of the Dania Cut-Off Canal) to 116 feet (along the Intracoastal Waterway) below the existing site grades. A total of 36 sieve analyses were performed on six representative samples from each of the six Southport Access Channel borings and from various elevations throughout the depth zone studied.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Boca Raton, FL	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **9**

21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
City Marina Dredging Design, Construction Management and Inspection Services **Alexandria, VA**	2014	2015

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Alexandria, Virginia	Mr. Tony Gammon, P.E. Project Manager	(703) 746-4155

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

URS is currently providing professional services to the City of Alexandria, Virginia to assist with the maintenance dredging of the City Marina. The City Marina, located in Old Towne Alexandria, is an integral component of the City's local economy, providing a waterside gateway for a variety of vessels including water taxis, pleasure boats, commercial ships, and tall sailing ships. To ensure adequate water depth for continuous access and safe passage to the City, it is necessary to dredge the Marina every 5 to 6 years to remove the sediments that naturally accumulate over time. The City retained URS to deliver professional services for the purpose of delivering engineering design/construction plans, environmental permitting, construction management, and inspection services for the design, permitting, and construction of dredging activities at the City Marina.

Key Elements:

- Bathymetric survey
- Environmental permitting
- Soil sampling and analysis
- Public outreach
- Preparation of construction drawings and specifications
- Bid phase support services
- Construction observation and administration

URS developed a scope of work for this project that efficiently meets the goals and objectives articulated by the City of Alexandria with an aggressive 1-year design and construction completion schedule. The URS approach led to an on-time, high-quality project with efficient interaction between URS and the City. In support of this project, a Joint Federal/State Application (JF/SA) was prepared requesting authorization to conduct maintenance dredging of the Alexandria City Marina and a portion of the adjacent subaqueous land out to the Federal Navigation Channel. Permitting will be requested from the COE in accordance with Nationwide Permit (NWP) #35 *Maintenance Dredging of Existing Basins*; the District of Columbia Department of the Environment (DDOE) in accordance with §8-103.06 of the District of Columbia Water Pollution Control Act of 1984; and the NPS pursuant to Federal Register, Volume 41, Number 160 (08/17/1976), Executive Order 11990 *Protection of Wetlands* and NPS Director's Order #77-1: *Wetland Protection*. URS conducted water and sediment sampling and analysis in the project area as required by all permitting agencies for the dredging and disposal of sediment. Samples were analyzed to determine appropriate handling and disposal protocols to meet agency requirements, and to identify Priority Pollutant List compounds and other contaminants of concern to permitting agencies and the City.

URS developed construction plans and technical specifications for the dredging activities at the City Marina in a phased approach to minimize the impacts to the Marina's water services. As part of the Bid Phase, URS assisted the City through preparing the bid advertisement and tabulation, and responding to bidder questions. Construction management services will commence in the next month for this project. URS will draw on our extensive construction management experience with dredging, transport, and dredged material placement operations on the Potomac River over the past 15 years.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Hunt Valley MD & Herndon, VA	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **10**

21. TITLE AND LOCATION *City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Lake Barton Dredging Services and Lake Restoration Project **Fairfax County, VA**	2010	2012

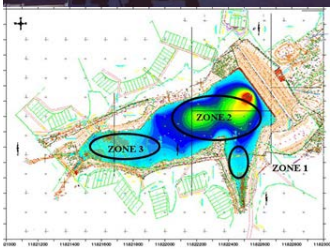
23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Fairfax County Department of Public Works and Environmental Services	Matthew Meyers, P.E. Project Coordinator, DPWES	703-324-5651

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Key Elements:

- Dredging methods and disposal alternatives study
- Sediment sampling and analysis
- Upland disposal analysis
- Dredge design construction drawings and specifications
- Lake restoration plan
- Dewatering plan and stormwater diversion plan

URS helped rehabilitate the Lake Barton Dam auxiliary spillway and prepare a dredging plan for the lake. Work began in September 2009 with the aggressive schedule to complete bid documents by March 30, 2010. The pre-dredging sediment storage capacity in the 9-acre lake was estimated at 42 years. To become eligible for Natural Resources Conservation Service (NRCS) technical support and for American Recovery and Reinvestment Act (ARRA) and NRCS funding, 15,000 cubic yards of sediment had to be removed from the lake to restore the 100-year flood storage volume.



URS performed a dredging alternatives study to investigate options for removing and disposing of the sediment. Sediment samples were collected tested for hazardous contaminants as well as physical properties to determine appropriate disposal methods of the dredged material: reuse as a beneficial project material, disposal as waste, or disposal as hazardous waste. Several methods of sediment removal were investigated including mechanical and hydraulic dredging. Alternatives for disposal included mechanical dredging in the wet with hauling wet sediment to an off-site facility and draining the lake to remove decanted sediments in the dry. As an alternative to hydraulically dredging sediments, the use of geo-textile dewatering bags placed adjacent to the lake was explored.

URS prepared plans and performance specifications for the dredging of approximately 35,000 cubic yards from the lake. This work involved preparing construction plans, specifications, and an engineer's construction cost estimate and construction schedule for the project.

URS developed a lake restoration plan that included fish habitat structures and wetlands plantings that specified wetland species along the lake's shallow shorelines to restore the wetlands and enhance the water quality of the lake. Recreational amenities including an open space, a walking trail around the lake, a permeable paver parking area, and landscape plantings were also included in the construction plans.

Federal, state, and local permit applications were also prepared. A dewatering plan and stormwater diversion plan were prepared, as well as bank stabilization details to restore the lake's banks with both engineered and natural materials. The mechanically dredged wet material was transported to Lorton Landfill for decanting and reuse. Reuse included landfill capping and adding soil amendments to the dredged soil to create topsoil, which was then brought back and used in the park and landscape areas around the lake.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	URS Corporation	Herndon, VA	Prime Consultant

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Panneer Shanmugam, PE	Officer-in-Charge Grant Fund Support & Coordination	✓	✓								
Fernando Navarrete, PhD, PE	Project Manager / Dredging Design	✓	✓								
Daniel Levy, PG	Technical Advisor		✓		✓	✓	✓	✓			
Nicholas De Gennaro, PhD, PE	Technical Advisor Constructibility			✓	✓	✓				✓	✓
Damon Quesenberry	LIDAR / GIS		✓		✓	✓					
William Sadler, PSM, PE	Bathymetric & Hydrographic Surveys										
Ron Ball	Bathymetric & Hydrographic Surveys										
Thomas Mullin, PE	Geotechnical Investigations	✓	✓	✓	✓						
Chip Day	Mitigation Design & Permitting Mitigation Assessment & Management Plans		✓	✓				✓			
Bill Barbaro, PE	Mitigation Design/Permitting Dredging Design										
Edward Marks, PG	Environmental Assessment & Benthic Surveys		✓		✓	✓	✓				
Keith Stannard	Environmental Resources & Impact Minimization		✓		✓	✓	✓				
Valerie Chartier	Environmental Resources & Impact Minimization				✓	✓					
Michael Breiner	Mitigation Assessment & Management Plans				✓	✓					
Chris Reed, PhD	Dredging Modeling & Analysis	✓									
David Cabage, CCC	Cost Estimating		✓								
Rajesh Srinivas, PhD, PE	Dredging Management Plan										

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Lake Trafford Restoration	6	Lake Hancock Dredging Feasibility Study
2	Lake Marion Dredge Feasibility Study	7	Dry Tortugas National Park
3	Wilton Manors FIND Dredging Plan	8	Port Everglades Widener / Dania Cut off Dredging Study
4	North Lake Dredge Feasibility Study	9	City Marina Dredging Design CM / Inspection Services
5	Flamingo Marina Dredging Services	10	Lake Barton Dredging Services

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

EXPERIENCE SUMMARY

URS CAPABILITIES

URS offers governmental clients a diverse range of state-of-the-art engineering and environmental services including:

Architectural
Landscape Architecture

Coastal Engineering
Numerical Modeling
Dredging Plans
Dredge Design
Spoil Management Plans
Sediment Transport Analysis
Permitting
Benthic Surveys
Long Term Monitoring Plans

Wastewater Resources
Wastewater Collection and Treatment
Wastewater Treatment Plants
Pretreatment Facilities/Programs
Collection Systems/Lift Stations
Sewer System Rehabilitation
Sanitary/Combined Sewer Overflows
Infiltration/Inflow Investigations
Flow Monitoring
Facility Planning
Odor Control

Water Supply, Treatment and Distribution
Water Treatment Plants
Elevated and Ground Storage Tanks
Waterlines and Tunnels
Booster Pump Stations
Wellhead Protection
Dams and Reservoirs

Stormwater Management
Best Management Practices (BMPs)
Detection/Retention Basins
Flood Control
NPDES Permits
Utility Creation
Storm Drainage Systems

Transportation and Traffic Engineering
Roadways, Highways, Bridges, Rail
Traffic Analysis Planning
Traffic Signalization and Traffic Control
Roadway Lighting
Signal Warrant Analysis
Railroad Planning and Design
Bike Trails Planning and Design
Right-of-Way Acquisition
Safety Studies
Transportation Planning
Land Use Planning/Zoning

Environmental
NEPA Process
Environmental Studies and Impact Statements
Wetlands Assessments and Mitigation
Watershed Management
Wildlife and Habitat Assessment/Restoration
Impact Studies
Environmental Studies
Archaeological Studies

Consulting Services
Architectural
Landscape Architecture
Civil Engineering
Electrical Engineering
Hydrogeology
Mechanical/HVAC
Site Assessment
Solid Waste
Structural Engineering
Public Facilitation
Inter-Governmental Relations
Policy Development
Project Funding/Grants Assistance
Rate Studies
Cost Estimating
Regulatory Assistance

CLOSING

URS offers you the most advantageous arrangement for a number of reasons, among them being:

- URS and our entire project team is familiar with your needs and has a proven track record with the City.
- Because we are local, we can give you immediate, same-day response to the day-to-day needs that arise.
- Our Contract Manager, Fernando Navarrete, and his team have performed many relevant coastal and marine projects throughout South Florida and Bahamas for both private and local governmental agencies.
- We have a sincere interest in continuing to serve City of Fort Lauderdale and provide design solutions to address the City's and marina's needs.

I. AUTHORIZED REPRESENTATIVE
The foregoing is a statement of facts.

30. SIGNATURE

31. DATE

September 26, 2014

33. NAME AND TITLE

Panneer Shanmugam, PE Vice President and Principal In Charge

SECTION 4: QUALIFICATIONS OF THE PROJECT TEAM

URS handpicked a diversified team of qualified, experienced professionals to provide top notch, cost-effective assessment and planning services for comprehensive scope of work included in your master plan scope. Presented below is a tabulation of these selected professionals.

Name	Project Responsibility	Qualification(s)/Expertise	Relevant Experience
Panneer Shanmugam, PE	Principal In Charge	22 years of environmental engineering and management experience, MBA; ME/BE in Civil Engineering; Expertise in Project Management, Utility and Civil Engineering	Municipal experience includes Fort Lauderdale, Boynton Beach, Oakland Park, Homestead, Miramar, Broward County and SFWMD. Experience with contract management and program management of multi-faceted projects with a critical program. Has a financial background.
Fernando Navarrete, PhD PE	Project Manager Dredging & Mitigation Plan	22 years of coastal and civil engineering experience, BS/Civil Engineering; PhD/Ocean Engineering, Expertise in coastal engineering, hydraulics, water resources and civil engineering. Certified URS project manager.	Local experience includes dredging design, offshore sediment and water sampling, offshore biological surveys, Coastal and Ocean engineering, and water resources project for SFWMD
Daniel Levy, PG	Technical Advisor	Over 29 years of sediment dredging experience and specializes in sediment management technologies. Co-inventor of the patented SEDCUT Dredge Technology for selective removal of contaminated sediments.	Extensive dredging experience. Including Florida' largest dredging demonstration project (200M+ yd3 phosphorus - contaminated sediments). Knowledge of dewatering treatment alternatives: Geotubes TM/belt filter filters and innovative treatment processes.
Nicholas DeGennaro, PhD, PE	Technical Advisor	23 years of construction, construction management and design experience, with four years of graduate coastal research and TWIC clearance. PhD in Environmental Engineering; MS in Ocean Engineering. Served as Technical Advisor on the "Fukushima flood study" report.	Design/construction management of *major* marine/environmental improvement projects involving marine structures, *dredging,* and the creation and restoration of marine facilities and habitat.
Damon Quesenberry	LIDAR / GIS	10 years of experience applying GIS technology to environmental science and engineering projects. BS in Environmental Management. worked on GIS projects dealing with transportation, utilities, stormwater management, water supply, storm surge, emergency planning, etc.	Integrates project data with resource data. Technically proficient in LIDAR and GIS; as well as ERI's ArcEditor and ArcMap, Trimble sub-foot accurate GPS units, Trimble Pathfinder and Terrasync software.

Name	Project Responsibility	Qualification(s)/Expertise	Relevant Experience
William Sadler, PSM, PE	Bathymetric & Hydrographic Surveys	40 years of experience as Hydrographic surveyor, BS in Ocean Engineering; Extensive background in conducting hydrographic (bathymetric) surveys; conducts Pre- & Post-Dredge Hydrographic Survey Events	Proven experience with State Submerged Lands Lease processing; engineering analysis; volumetric calculations; final certifications; construction layout / stake-out and topographic and bathymetric surveying
Ron Ball	Bathymetric & Hydrographic Surveys	29+ years of surveying experience throughout the State of Florida, U.S. Virgin Islands, Caribbean, and various regions of South America. Specific expertise in hydrographic surveying, topographic surveying, geodetic control surveying and remote sensing investigations	Involved with numerous large-scale mapping projects encompassing dredging projects, design and construction surveys, beach and nearshore surveys, charting and volumetric evaluations for U.S. Army Corps of Engineers – Jacksonville District, FDOT, FIND and many other government entities.
Thomas Mullin, PE	Geotechnical Investigations & Sampling	33 years total experience on civil and geotechnical engineering projects. Areas of expertise include: Soils and Foundation Engineering and Testing, Civil Construction Design / Management, Groundwater Hydrogeology, Quality Control Testing and Inspection. MS in geotechnical engineering.	Firsthand local knowledge and experience of Las Olas Marina/Port Everglades geotechnical conditions. Geotechnical designer on a wide variety of projects, involving ports and harbors, coastal areas, water resources, landfills and commercial and industrial structures. nuclear /fossil fuel power plant structures, embankments and transportation facilities.
Chip Day	Mitigation Design & Permitting Dredging Design	20+ years of environmental engineering experience with ecological studies throughout Florida's ecosystems. MS in Environmental Science. Expertise in Seagrass Ecology, Marine and Estuarine Ecology, Habitat Mapping and Photo-Interpretation, Environmental Planning and NEPA Studies, Environmental Permitting, Wetland Delineation, Threatened and Endangered Species Surveys,	Firsthand knowledge of the project area, scientific projects and grants including environmental permitting, monitoring and oversight, aerial vegetation surveys (terrestrial and aquatic), hydrologic studies, submerged aquatic vegetation (SAV), and essential fish habitat (EFH) surveys, as well as vegetative population dynamics and biogeographical analysis

Name	Project Responsibility	Qualification(s)/Expertise	Relevant Experience
Bill Barbaro, PE	Mitigation Design & Permitting Dredging Modeling & Analysis	13 years of experience in civil engineering design, computer modeling, permitting, and construction services experienced with coastal and marine engineering, infrastructure utilities, site civil, and land development projects. Areas of expertise include: dredge and mass earthwork; environmental permitting; construction management; land development; program and project management.	Project history includes large scale earthwork projects including marina and ocean inlet design, and construction services, marine dredging, and environmental permitting, site civil design, permitting, and construction including water and wastewater utility infrastructure, drainage and roadway, large scale residential, and mixed-use developments, water resource, and stormwater management systems.
Edward Marks, PG	Environmental Assessment & Benthic Surveys	12+ years of experience conducting ecological investigations. Compliance background concentrates in environmental and ecological permitting and compliance projects, marine resource surveys and contamination cleanup/remediation projects.	Project Environmental Scientist Calypso/U.S. Pipeline for the preliminary assessment and EIS for 90-mile pipeline from Grand Bahama to Ft. Lauderdale, Extensive alternatives analysis evaluating trenching, directional drilling, and tunneling alternatives
Valerie Chartier	Environmental Resources & Impact Minimization	10 years of experience conducting NEPA projects in Florida, supported by an MBA in Environmental Management. NEPA specialist for projects ranging from large-scale transportation projects to critical restoration projects and controversial recreation projects.	Experience includes numerous PD&E re-evaluations, benthic surveys, agency coordination, contamination assessments, wetland evaluations, gopher tortoise surveys, wetland mitigation, and preparation of WERs, ESBAs, and CSERs.
Keith Stannard	Environmental Resources & Impact Minimization	21 years of experience in conducting and managing professional ecological investigations for offshore facilities, marinas, dams, maintenance dredging, basin studies, linear facilities (roadways, railways, pipelines), site development (industrial, residential, mixed-use) projects.	Extensive experience with marine and terrestrial wetland ecology; wetland and upland mitigation; threatened and endangered species conservation protocols and Section 7 consultation. In-depth NEPA and permitting experience.

Name	Project Responsibility	Qualification(s)/Expertise	Relevant Experience
Chris Reed, PhD	Dredging Modeling & Analysis	22 years of experiencec conducting coastal/oceanographic/hydrodynamic and sediment transport studies, feasibility studies and design analysis. Earned his PhD and MS degrees in Engineering Science and Mechanics. Experienced in applying standard process-based transport models including the SMS models RMA2 & 4, ADCIRC, M2D, HSPF and the HEC suite of models.	Modeling experience includes surf-zone transport and inlet dynamics. Conducts hydrodynamic and water quality studies; applies purpose-built multi-dimensional sediment transport models Develops/ applies hydrodynamic models for circulation, sediment transport, water quality studies, surf zone transport, inlet dynamics, and storm surge analysis.
Michael Breiner	Mitigation Assessment & Management Plans	33 years of experience in conducting professional ecological studies with over 13 years of specialization in the field of botany. Technical expertise has been focused on environmental issues relating to small- and large-scale developments and linear construction projects (roadways, pipelines, etc.) throughout the eastern United States.	Technical experience includes wetland delineations and functional analysis, floral and faunal assessments, wildlife surveys and relocations, community inventories, mapping, soil/water quality assessments, NEPA documentation, environmental permitting, and mitigation monitoring.
David Cabage, CCC	Cost Estimation	Over 25 year of costing estimating experience. Earned Bachelors of Science in Building Construction; Certified Cost Consultant/ American Association of Cost Engineers	Experienced in cost estimating and scheduling for all types of engineering projects. Estimates involve all 16 Construction Specifications Institute divisions from conceptual plans through finish, including change orders and claims.
Rajesh Srinivas, PhD, PE	Dredging Management Plan	28 years of coastal zone management and dredging engineering experience in Florida. Expertise includes planning, design, permitting, and monitoring of coastal engineering, shore protection, navigation, dredging, coastal structures, hydraulics, hydrology, water quality, and environmental projects and the numerical and analytical modeling of coastal and estuarine processes.	From 1994 through 2013 with Taylor Engineering, a firm which served as District Engineer to the Florida Inland Navigation District (FIND). Worked on the planning, design, and/or construction management of multiple dredging and dredged material management projects along the Atlantic Intracoastal and Okeechobee Waterways in Florida. Oversaw all engineering and environmental staff working on FIND projects.

More detailed qualifications and relevant experience of each team member is presented in their SF330 resumes which were provided in the previous section.

SECTION 5: PROJECT MANAGER

Project Manager: Fernando Navarrete, PhD, PE

Fernando Navarrete, a Florida licensed professional engineer and URS Certified project manager, has 22 years of engineering experience. His expertise lies in ocean/coastal engineering design which includes: hydrodynamic modeling, offshore water and sediment sampling and characterization, environmental impact assessment, dredging design, coordination of offshore marine biological studies, and permitting of offshore and coastal structures.

Dr. Navarrete's has also been heavily involved in water resources projects; his experience includes: hydraulic and hydrologic (H&H) modeling, groundwater modeling and monitoring, groundwater quality sampling, stormwater management, and complete design of water resource projects.

His civil engineering design experience includes project management, design of storm treatment areas, pump stations and associated structures, coordination of geotechnical and geophysical studies, and construction management and geotechnical work supervision.

His recent coastal engineering and project management experience includes:

- *Hurricane Shelter Surge Analysis and Storm Protection Design*. The analysis and storm protection design for FPL's Cape Canaveral and Riviera Beach Energy Centers was prepared to protect the facilities from a Category 5 hurricane storm event.

- *Coastal Surge and Wave Impact Analysis* for three other FPL sites which determined design conditions for protecting the facilities against a storm event with a 3% chance of occurring every 50 years.

- W*ater and sediments sampling and sediment characterization* for the construction of a dry dock. He also managed for the *marine biological and benthic survey* for the offshore platform to be constructed in the referenced dry dock.

- S*election of the optimum dredging method* for the dredging of the three canals converging to the inflow canal for the 2,100 cfs G-508 pump station located at the Compartment C Storm Treatment Area (STA) for the SFWMD.

Dr. Navarrete earned his PhD degree in Ocean Engineering and his BS degree in Civil Engineering. He has been a member of the American Society of Civil Engineers for nearly 18 years.

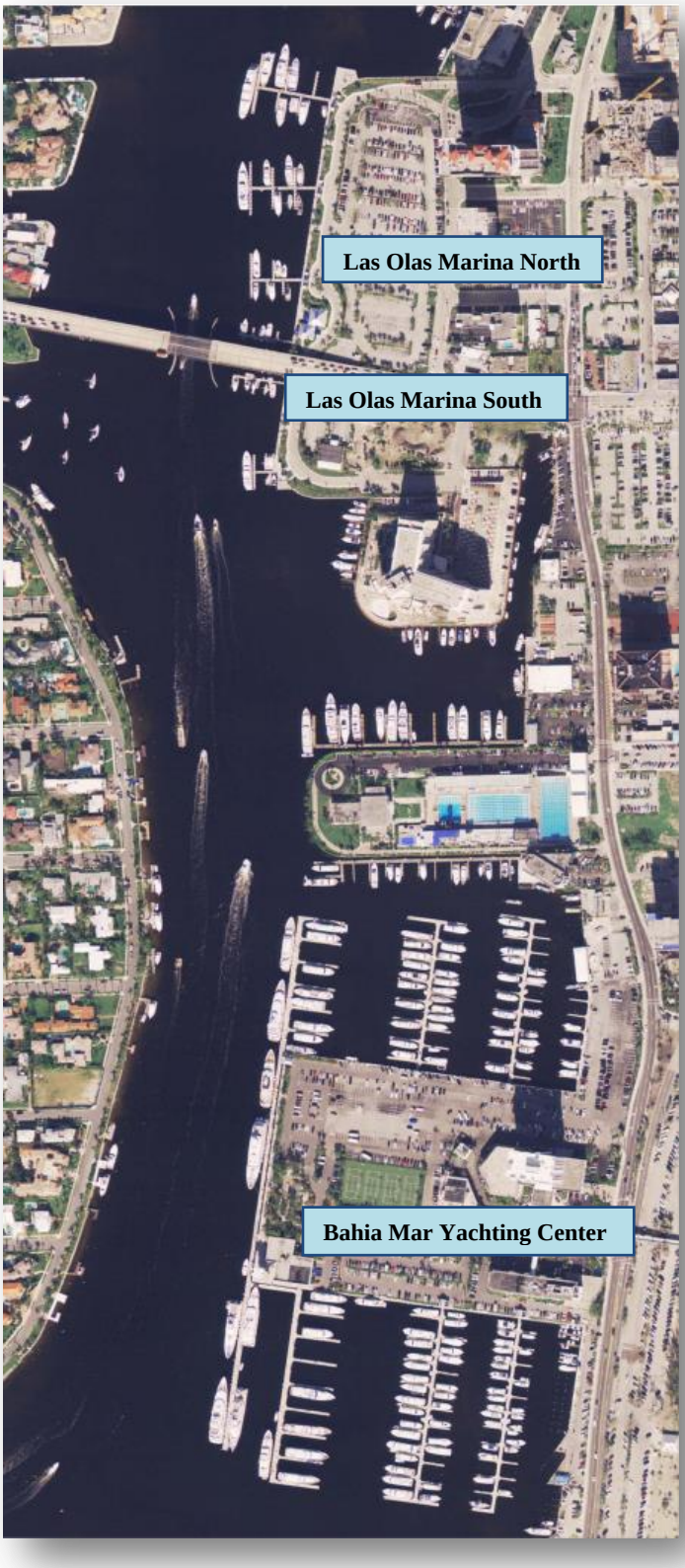
Section 6: Approach to the Scope of Work

Project Understanding

URS understands the City is seeking professional design and permitting services for the Intracoastal Waterway - Las Olas Marina Dredging project (the "Project") which consists of deepening the Bahia Mar Yachting Center and Las Olas Marinas as well as the approach from the Intracoastal Waterway (ICWW) to the marinas.

The Las Olas Marina is a 60-slip mega yacht facility capable of accommodating vessels in excess of 170'. The Bahia Mar Yachting Center is a 250-slip mega yacht facility capable of accommodating vessels in excess of 250'.

This dredging project will coincide with, and become part of, the Florida Inland Navigation District's (FIND) ICWW Deepening project. The Las Olas Marinas and Bahia Mar Yachting Center Marina will be deepened at depths consistent with the deeper ICWW channel depths to accommodate the marine industries' need for additional large vessel dockage. *URS understands that the City would like to utilize FIND's dredging contractor, dredging methods, and dredged materials disposal site for the City's dredging project.*

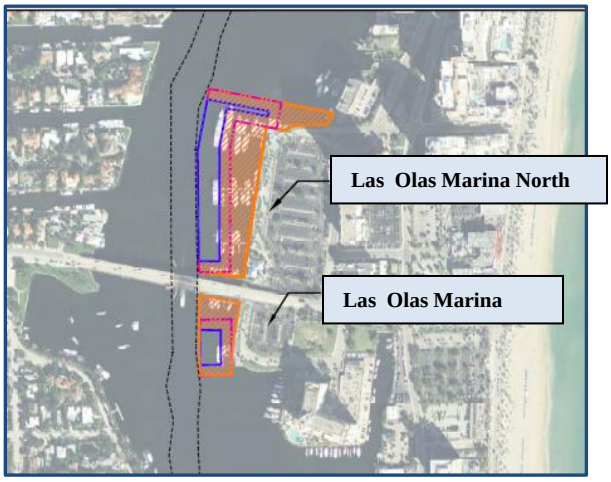


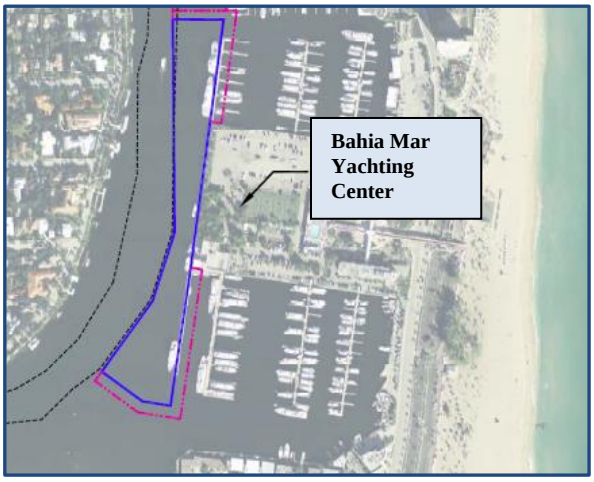
Project Description

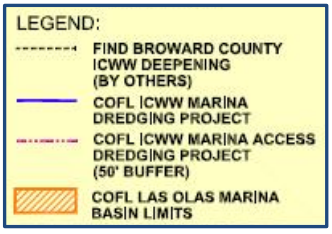
This dredging project includes the design, permitting, and resources mitigation services for the dredging of the Bahia Mar and Las Olas marinas and their respective approaches to/from the ICWW. The project components and approximate areas identified in the Conceptual Mitigation Plan (CMP), prepared by URS in September 12, 2013, and the RFP, are as follows:

Marina	Component	Area (Acres)
Bahia Mar Yachting Center	Connector Area	6.4
	Buffer Area	1.9
Total Bahía Mar Yachting Center		**8.3**
Las Olas Marinas North	Connector Area	1.8
	Buffer Area	1.6
	Marina Basin	4.0
	Total	**7.4**
Las Olas Marinas South	Connector Area	0.4
	Buffer Area	0.5
	Marina Basin	1.0
	Total	**1.9**
Total LOM North & South		**9.3**

The figures below depict different dredging areas for the Las Olas Marina and the Bahia Mar Yachting Center as identified in the CMP.



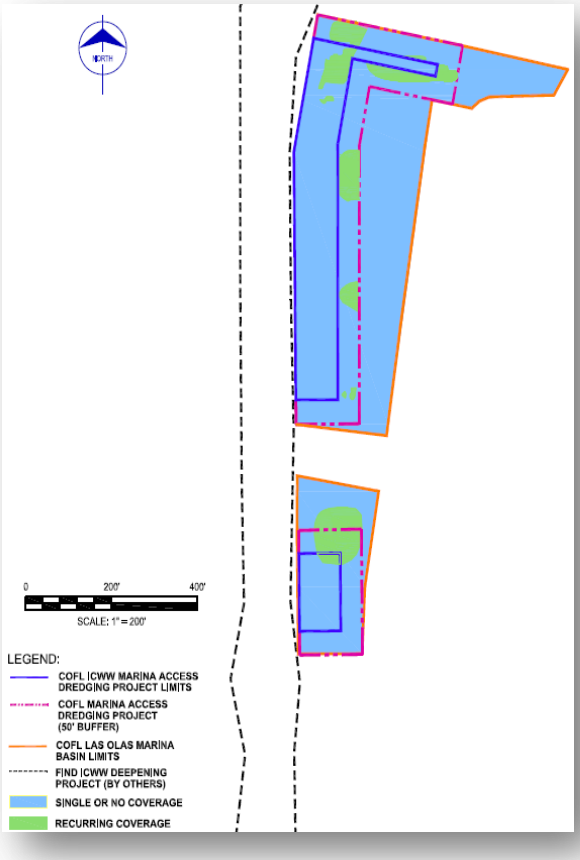




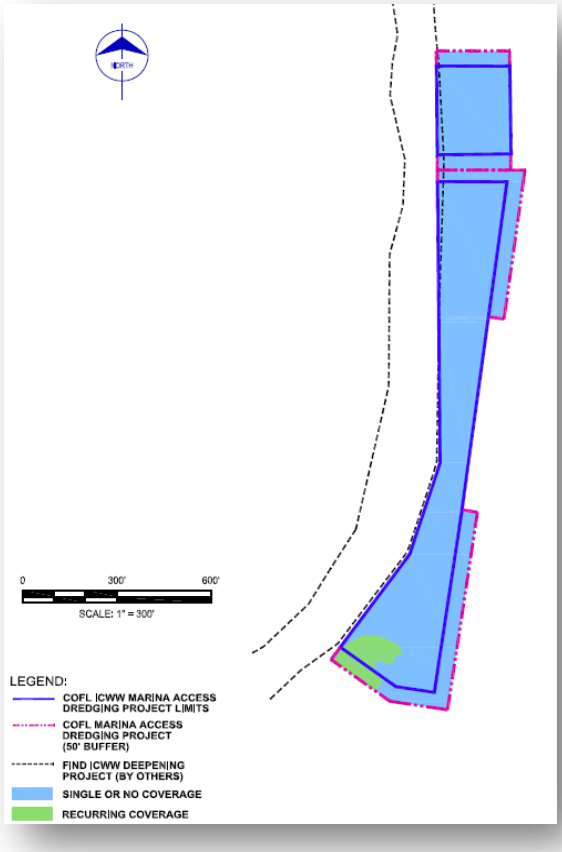
Background

URS began the permitting efforts in support of the City's dredging project with the U.S. Army Corps of Engineers (USACE), Florida Department of Environmental Protection (FDEP) and the Broward County Environmental Protection and Growth Management Department (BCEPGMD) in 2011. The table below presents a chronological summary of the events to date.

Chronological Events	Project Effects
April 2011 Pre-application Meeting with FDEP, BCEPGMD, USACE	BCEPGMD recommends that distribution maps showing individual seagrass occurrences and an overlay showing the areas of regular habitat occurrences be prepared.
August 2011 URS Benthic Survey	Survey of composite project area identified a total of 4.74 acres of seagrass.
May 2012 Tetra Tech Benthic Survey	Survey of the Las Olas Marina Basin identified a total of 1.76 acres of seagrass.
September 2012 URS Benthic Survey	No seagrass resources were identified in the project area
January 2013 The City with the assistance of URS submitted Environmental Resource Permit to: FDEP, BCEPGMD and USACE	No compensatory mitigation of potential impacts to seagrass was proposed by the City based on the 2012 URS survey. USACE agreed with City that no seagrass mitigation would be required. BCEPGMD indicated they have knowledge that seagrasses occur within the project footprint.
April 2013 Post permit submittal roundtable meeting with the regulatory agencies to discuss Requests for Additional Information (RAIs)	Both FDEP and BCEPGMD indicated that compensatory mitigation will be required due to documented seagrass in the area. BCEPGMD requested historical information dating back a period of 5 years be evaluated, particularly in the context of historically overlapping seagrass areas within the project footprint.
April 2013 Review of the limited seagrass mitigation options throughout Broward County.	Deerfield Island was identified as the most likely candidate for use as a compensatory seagrass mitigation area. The City obtained a verbal conceptual authorization to utilize a portion of Deerfield Island as a mitigation site.
August 2013 URS Benthic Survey	No seagrass resources were identified in the project area
September 2013 URS submitted the Conceptual Mitigation Plan for the proposed project.	Per the direction provided by the regulatory agencies, it was determined that only paddle grass typically occurred within 0.72 acres of "suitable habitat", with a UMAM functional loss equated to 0.064.
December 2013 Roundtable discussion regarding to discuss the Conceptual Mitigation Plan	BCEPGMD stated that it will be necessary for the City to provide legal documentation stating the Broward County Parks and Recreation (BCPR) and FIND are in agreement that the Deerfield Island site can be utilized for mitigation and that the proposed mitigation plan does not affect the 25 year Management Plan for the property.



Recurring Coverage - Las Olas Marina



Recurring Coverage – Bahia Mar Yachting Center

There has been a total of six benthic surveys conducted within the proposed project area, during the seagrass growing seasons of 2008 through 2013. URS performed three of these surveys. As such, *URS is uniquely qualified to prepare the requested pre-construction benthic resource survey methodology which would focus in and concentrate on these resource "hot spots".*

These benthic resource surveys were conducted in 2008, 2009, 2011, May 2012, September 2012, and again in 2013. Only the opportunistic and low functional value paddle grass (Halophila decipiens) has been observed historically. This species is documented as being ephemeral and non-consistent from year to year due to a number of known and unknown factors.

As such, URS normalized the historic sources of seagrass data to determine the extent of documented seagrass and a functional assessment necessary to prepare the Conceptual Mitigation Plan for the proposed project. Per the direction provided by the regulatory agencies at multiple meetings, it was determined that only paddle grass typically occurred within 0.72 acres of "suitable habitat", with a UMAM functional loss equated to 0.064 – these numbers were agreed to by all regulatory agencies.

Although paddle grass had been identified in several areas of the proposed project, the areas of reoccurrence were limited to highly specific areas which demonstrated appropriate substrate and water column depth. These areas are clearly defined as several relatively small patches. As such, the anticipated Pre-dredge Survey should be conducted within the entire project area, including buffer areas. *In an effort to reduce survey costs, URS proposes to widen survey transects in the areas that typically did not demonstrate seagrass habitats; while more detailed, focused pre-dredge surveys will be conducted in areas having known occurrences of seagrass.*

Project Vision

The annual Fort Lauderdale International Boat Show is an integral component of the City's local economy as it infuses $650 million into the local community. To efficiently engineer a plan to fulfill the yachting industry's need for additional deep water dockage at the Las Olas and Bahia Mar Yachting Center marinas, we must partner and work cooperatively in conjunction with the City of Fort Lauderdale and Florida Inland Navigation District (FIND) Intracoastal Waterway (ICWW) Deepening project team.

The principle project goal is to provide deeper access to adjacent City marinas. The City's objectives include minimizing costs by piggy backing their project on to FIND's ICWW project.

All agencies have agreed that the City would be able to work through dredging logistics and develop the impact plans for the project; however, resolving the mitigation issue would not likely occur until FIND's ICWW Deepening Project resolves the same issue.

It was also agreed that all represented agencies would work closely with the City and URS to:

- Expedite the permitting
- develop a clear and complete permit application package
- avoid unnecessary requests for additional information (RAIs)

Primary Project Objectives

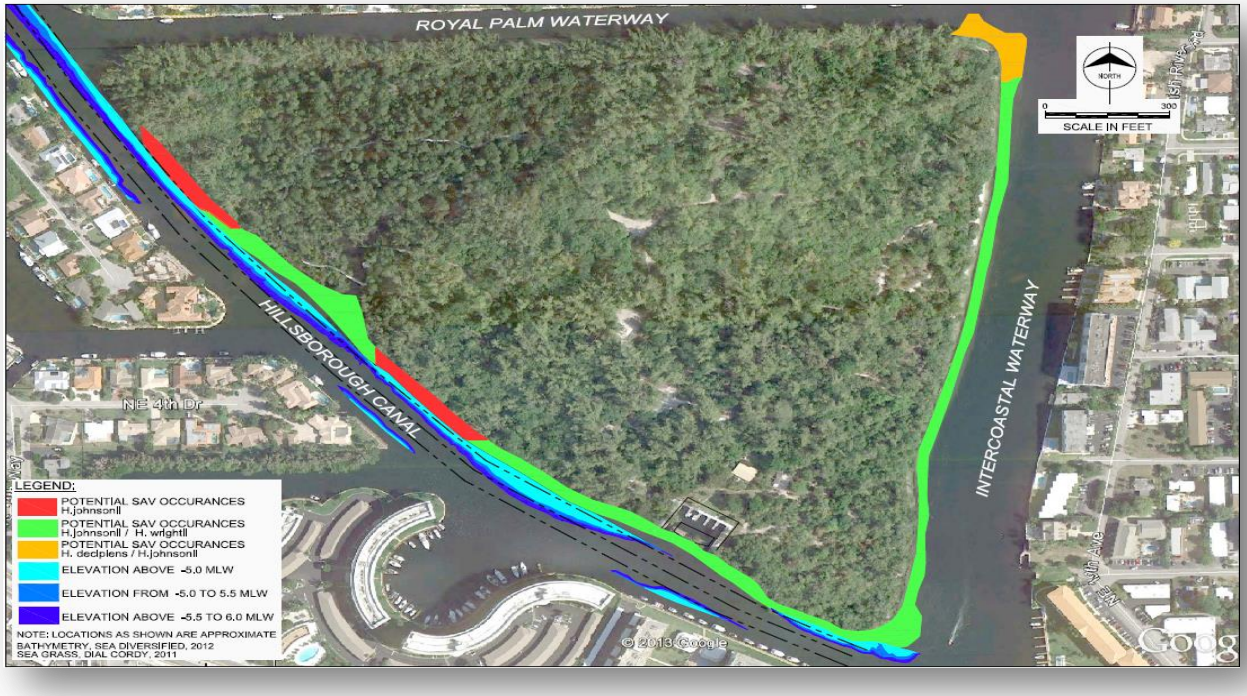
- To deepen portions of the ICWW in the vicinity of the Las Olas Marina, and the Bahia Mar Marina
- Create a seamless connection between the FIND ICWW deepening project and the City's dredging project
- Minimize aesthetic and operation Impacts to the marinas/ daily operations
- Conduct all work in close

URS has been coordinating with all the agencies in expediting this process culminating in several interagency meetings to review and eventual acceptance of the Construction Mitigation Plan (CMP) findings.

Based on the above, URS has a clear vision for the implementation of the City's goals and objectives. We have a thorough understanding of the history and the background of the issues, and have developed within this document a well thought out project implementation approach along the following critical path guide lines:

Dredge Permitting. A joint application permit (USACE, FDEP and BCEPGMD) to perform dredging activities for the City's project was prepared and submitted by URS. This resulted in mitigation needs for seagrass at the site. This application will need to be revisited with the agencies.

Seagrass Mitigation. We prepared a CMP as a



result of the requests by BCEPGMD and FDEP to perform mitigation in the areas of seagrass recurrence. USACE requested that pre-construction benthic survey be conducted. As recommended in the CMP, seagrass mitigation has to be performed.

Hydrographic Surveying and Modeling. To identify the current depths of the channel and to establish criteria and quantities, a hydrographic survey exercise will be performed. Once these criteria have been established, an idea of how the sediments move creating mixing zones during dredge action will be analyzed through a modeling effort.

Design Development. Once quantities and dredge plans have been established, clear specifications and drawings needs to be developed to provide instructional data to contractors as well as informational data to permitting agencies. Quantities and material take-offs can be calculated at this stage to provide the City with a budget to work with.

Stakeholder Coordination. Due to the sensitive nature of the activities and the impact of construction to the operation of the marinas and the ICWW, coordinating with key stakeholders is a critical component of the entire project. Communicating the dredging program in a clear concise manner to the stakeholders will be key to the success of the exercise.

Constructability Evaluation. Continuity of marina operations, an efficient dredging method, monitoring program, a manageable spoil plan, etc., are all important factors to be considered prior to construction commencement. A detailed evaluation of these activities and the development of a well-defined plan and specifications will be crucial.

Proposed Work Plan

URS proposes to perform the project using a well thought-out, task-based approach that includes strategic milestones for tasks and deliverables. This approach will help execute the schedule as presented here in accordance with FIND's project.

Each task phase can be fine-tuned by the findings discovered during the execution of the previous tasks. This presents an opportunity for the team to implement a fluid and flexible approach to the project development.

The URS team, led by Dr. Fernando Navarrete, has worked well in the past with the City staff. We feel that the executing our task based approach effectively will provide the project team an excellent opportunity to meet the budget and schedule.

Presented in the next page is a detailed work task breakdown with potential concerns identified for each task based on our experience with this project and other similar dredging projects:

Project Approach

Task 1 – Project Management
Task 2 – Permit Coordination
Task 3 – Coordination with FIND and Stakeholders
Task 4 – Detailed Design Development
Task 5 – Bid Support

Phase	Work Breakdown	Potential Concerns
Project Management	• Permitting/ Project Schedule • Kickoff Meeting • Biweekly Meetings	• Timing consideration to meet FIND's schedule
Permitting and Field Studies	• Permitting/Regulatory Review, • Mitigation Coordination, • Stakeholder Coordination, • Pre-construction Benthic Survey, • Hydrographic/Bathymetric Survey, • Environmental assessments, • Legal description and related easements, • Dredging Plan • Monitoring plan, long-term management plan and adaptive management plan, • Financial assurances • Spoil Management Plan •	• Lack of agreement on mitigation site at Deerfield Island by BCEPGMD • Stakeholder non-concurrence (FIND, BCP, etc.) • Seagrass recurrence • Access to conduct survey • Presence of hard material difficult to dredge • Presence of contaminants • Property limits issues • Potential extent of impacts & material characteristics • Issues with sediment deposition rates and effect on adjacent properties • Lack of funds or timing of funding for project • Availability of site to deposit spoils
Sampling and Analysis	• Sediment Sampling • Water Quality Sampling • Geotechnical Investigation	• Presence of contaminants in sediments • Presence of contaminants in water • Presence of hard material difficult to dredge
Stakeholder Coordination	• Coordination with FIND • Coordination with BCP • Technical Reviews and Workshops	• Timing to take advantage of projects synergies • Acceptance of Deerfield Island as mitigation site • Public opposition to project or mitigation
Detailed Design Development	• Design Criteria Development • Project Layout and Evaluation of Dredging Options • Opinion of Probable Construction Cost Development • Constructability Plan including Schedule • Technical Reviews with City and Find • Detailed Drawings/Tech. Specs. Development • Detailed Bid Package Development	• Balancing Stakeholder/District City's interests within the design (e.g. dredging procedure, etc.) • Delay on feedback on prefer dredging option • Potential high project cost above available funds • Coordination with FIND project • Delay in technical review and feedback • Marina Pile Stability after dredging • Project Cost • Long-lead item planning
Bid Support	• Assistance for Bid preparation • Assistance for Contractor Selection	• Delay on bid preparation and coordination • Coordination with FIND for potential use of same Contractor

Project Implementation (Schedule)

By working with the City, providing permitting services, and coordinating with FIND on this marina dredging project since 2011, URS has created a good rapport with permitting agencies. Additionally URS has conducted three of the six benthic resources survey conducted in the project area. As such *the URS team is uniquely poised and ready to move forward, after receiving a notice to proceed, to develop the seagrass mitigation and protection plan that addresses compensatory mitigation for Halophila dicipiens (paddle grass)* observed within the project limits. Having URS serve as your project engineer would save critical time.

Based on our dredging experience, our involvement with the initial phase of the project, and our proposed work plan, URS has prepared a preliminary timeline and schedule. The most critical events affecting the actual timeline/schedule will be the agencies' agreement on the selected mitigation site and identifying and securing the spoil disposal site.

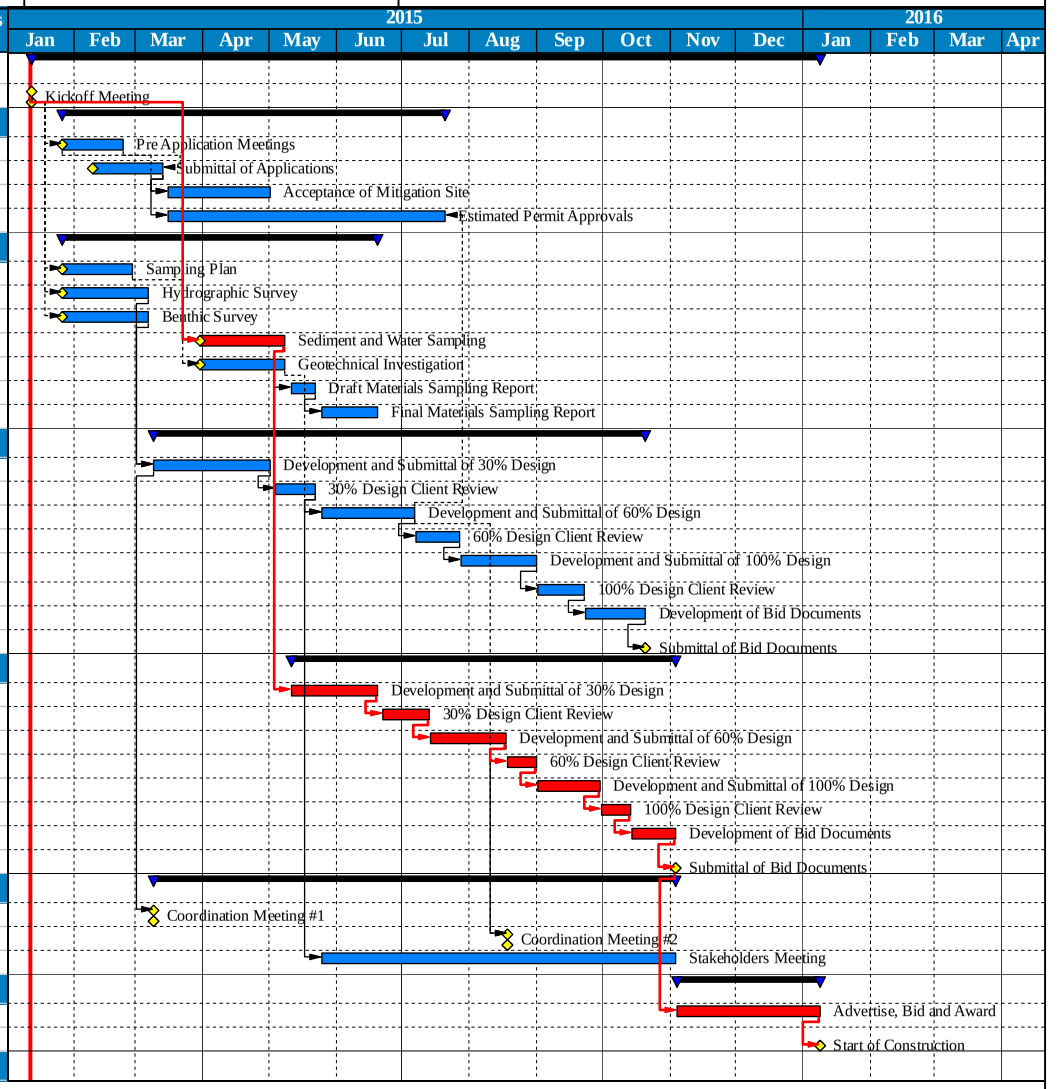
Presented below and on the next page is a preliminary project timeline and estimated Primavera schedule. These can be updated to include projected construction timelines during design development.

PRELIMINARY PROJECT TIMELINE

Milestone	Estimated Date
Kickoff Meeting	January 2015
Permitting	January 2015 – July 2015
Surveys and Sampling	January 2015 – June 2015
Dredging Design	March 2015 – October 2015
Mitigation Design	May 2015 – November 2015
Coordination Meetings (2)	March & August 2015
Stakeholders Meetings (3)	May – October 2015
Advertise, Bid & Award	November – January 2016
Construction Start	January 2016

LAS OLAS MARINA DREDGING PROJECT

Activity ID	Activity Name	Duration	Start	Finish	Predecess
Las Olas Marina Dredging Project		255	12-Jan-15	08-Jan-16	
A1000	Kickoff Meeting	0	2-Jan-15*		
Permitting		125	26-Jan-15	20-Jul-15	
A1200	Pre Application Meetings	21	6-Jan-15*	23-Feb-15	A1000
A1205	Submittal of Applications	25	9-Feb-15*	3-Mar-15	A1200
A1210	Acceptance of Mitigation Site	35	16-Mar-15	1-May-15	A1200, A1
A1220	Estimated Permit Approvals	90	16-Mar-15	20-Jul-15	A1205, A1
Survey and Sampling		105	26-Jan-15	19-Jun-15	
A1230	Sampling Plan	25	6-Jan-15*	27-Feb-15	A1000
A1240	Hydrographic Survey	30	6-Jan-15*	6-Mar-15	A1000
A1250	Benthic Survey	30	6-Jan-15*	6-Mar-15	A1000
A1260	Sediment and Water Sampling	30	3-Mar-15*	8-May-15	A1000, A1
A1270	Geotechnical Investigation	30	3-Mar-15*	8-May-15	A1000
A1280	Draft Materials Sampling Report	10	1-May-15	2-May-15	A1260
A1290	Final Materials Sampling Report	20	5-May-15	19-Jun-15	A1280
Dredging Design		160	9-Mar-15	20-Oct-15	
A1300	Development and Submittal of 30% Design	40	9-Mar-15	1-May-15	A1240, A1
A1310	30% Design Client Review	15	4-May-15	2-May-15	A1300
A1320	Development and Submittal of 60% Design	30	5-May-15	06-Jul-15	A1310, A1
A1330	60% Design Client Review	15	07-Jul-15	27-Jul-15	A1320
A1340	Development and Submittal of 100% Design	25	28-Jul-15	31-Aug-15	A1330
A1350	100% Design Client Review	15	01-Sep-15	22-Sep-15	A1340
A1360	Development of Bid Documents	20	23-Sep-15	20-Oct-15	A1350
A1370	Submittal of Bid Documents	0		20-Oct-15	A1360
Mitigation Design		125	1-May-15	3-Nov-15	
A1380	Development and Submittal of 30% Design	30	1-May-15	19-Jun-15	A1260
A1390	30% Design Client Review	15	22-Jun-15	13-Jul-15	A1380
A1400	Development and Submittal of 60% Design	25	14-Jul-15	7-Aug-15	A1390
A1410	60% Design Client Review	10	8-Aug-15	31-Aug-15	A1400
A1420	Development and Submittal of 100% Design	20	01-Sep-15	29-Sep-15	A1410
A1430	100% Design Client Review	10	30-Sep-15	13-Oct-15	A1420
A1440	Development of Bid Documents	15	14-Oct-15	3-Nov-15	A1430
A1450	Submittal of Bid Documents	0		3-Nov-15	A1440
Project Coordination		170	9-Mar-15	3-Nov-15	
A1460	Coordination Meeting #1	0	9-Mar-15*		A1300
A1470	Coordination Meeting #2	0	8-Aug-15*		A1400, A1
A1480	Stakeholders Meeting	115	5-May-15	3-Nov-15	A1310
Pre-Construction Services		45	4-Nov-15	08-Jan-16	
A1490	Advertise, Bid and Award	45	4-Nov-15	08-Jan-16	A1450
A1500	Start of Construction	0		08-Jan-16	A1490
Construction Services (to be completed during design)		0			



Actual Work
Completed Task
Remaining Work
Critical Remaining Work
Start Constraint
Finish Constraint

EXHIBIT 2
14-1584

Project Approach

URS developed a streamlined approach for all associated design, scheduling and coordination efforts to allow the City's project to be in sync with the FIND dredging project for deepening the ICWW main corridor adjacent to the project location.

URS also developed a scope of work for this project that efficiently meets the goals and objectives articulated by the City of Fort Lauderdale. URS' approach will lead to an on-time, high-quality project with efficient interaction between URS and the City. This section of our proposal presents a detailed description of the technical approach; we propose to successfully complete the requested tasks: project management, permitting, coordination with FIND and design development.

Task 1 Project Management

URS understands that clear and timely communication with the City is paramount to the success of the project. The City will have one point of contact, the Project Manager Fernando Navarrete. We believe it is important that the City has one point of contact for a streamlined, timely, and accountable information flow between the City and URS.

Kickoff Coordination Meeting

The kickoff meeting allows all parties to meet, review important aspects of the project, and agree on a "game plan." At a minimum, URS will prepare the following items to discuss at the kickoff meeting:

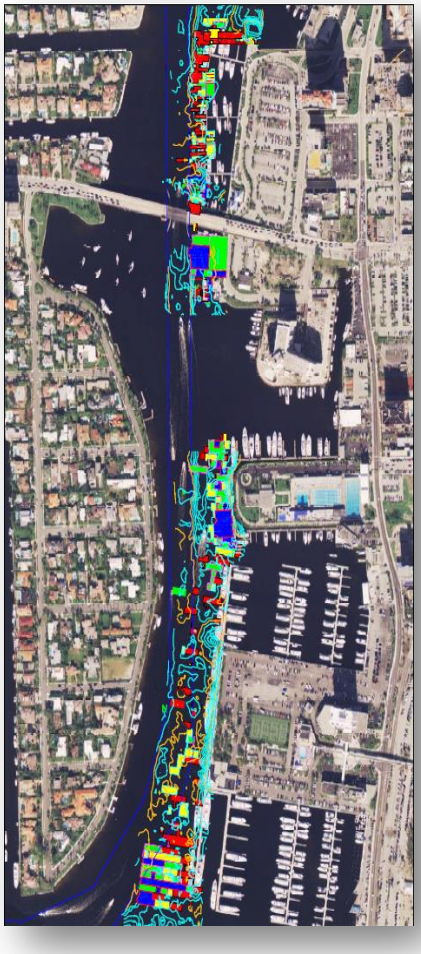
- Meeting agenda and exhibits as appropriate.
- Draft project schedule utilizing Microsoft Project
- Preliminary permitting plan to build on the accomplishments achieve by URS to date

Project Management

Good communication does not end after the kickoff meeting. URS knows that timely, effective communication on a continual basis is necessary throughout the life of a project. URS will provide biweekly project status updates that will summarize work completed, work planned, scheduled milestones, information or clarifications needed, permit status, and overall percent completion by phase. The status report will include the project schedule, with updates as necessary, and a summary list of supporting factors for schedule changes. In addition to the status reports, URS will also conduct biweekly project status conference calls to review the status report content with City staff.

Project Management Deliverables	
1.1	Project schedule in Microsoft Project format
1.2	Meeting agendas, presentation materials, and summary notes (with action items)
1.3	Permit summary memo and application tracking
1.4	Biweekly project progress reports
1.5	Kickoff Meeting - Meeting minutes
1.6	Biweekly Meetings – Meeting minutes

Task 2. Permit Coordination



The URS team will provide continuity with the work conducted previously. The URS team will continue to interface and provide associated coordination with FIND, USACE, National Marine Fisheries (NMFS), FDEP, including governing board approval, BCEPGMD and other agencies necessary to obtain all necessary permits.

The URS team will prepare the following in support of the permitting:

- Prepare all permit applications and submittals
- Perform associated environmental assessments
- Perform Benthic surveys
- Identify possible impacts to aquatic organisms from dredging operations
- Conduct hydrographic and bathymetric surveys
- Draft legal description and sketches of State of Florida Sovereign Submerge Lands Lease (SSL) and related easements
- Prepare, submit and obtain all necessary legal approvals on behalf of the City prior to construction
- Determine the lateral extent of sediments/lateral extents of area of proposed dredging
- Develop associated avoidance and minimal impacts plan
- Prepare cubic yards estimate of sediment to be removed from the project areas
- Prepare certified engineering cost estimate
- Create schedules as required
- Respond and address permitting agencies' Requests for Additional Information (RAIs).
- Coordinate with FIND (including necessary certification)
- Delineate all resource jurisdictions including, but not limited to, USACE, FDEP, City, or private control

URS will assist the City with the preparation of documents related to grant funding requirements set by the appropriate grant agencies.

Permitting Deliverables

2.1 Permit applications and submittals to USACE, NMFS, FDEP and the BCEPGMD
2.2 Environmental Assessment Report
2.3 Benthic surveys results
2.4 Geotechnical investigation reports
2.5 Hydrographic and bathymetric surveys results
2.6 Legal description and sketches of State of Florida SSL and related easements
2.7 Dredging Plan including:
  2.7.1 Lateral extent of sediments/lateral extents of area of proposed dredging,
  2.7.2 Associated avoidance and minimization of impacts plan
  2.7.3 Estimate of sediment to be removed from the project areas
2.8 Cost estimates and Schedules as required
2.9 Monitoring plan, Long-term management plan and Adaptive management plan
2.10 Spoil Management Plan

Task 3. Materials Sampling and Analysis

URS will conduct water and sediment sampling and analysis in the project area as required by all permitting agencies for the dredging and disposal of sediment. Samples will be analyzed to determine appropriate handling and disposal protocols to meet agency requirements, and to identify Priority Pollutant List compounds and other contaminants of concern to permitting agencies and the City.

Sampling and Analysis Protocols Plan

In accordance with state and federal requirements related to dredging and disposal of sediment, URS will develop and implement a Sampling and Analysis Protocols Plan to evaluate the sediment for potential contaminants. Prior to conducting sampling, URS will submit a plan summarizing regulatory requirements, proposed number and locations of samples, sampling methodology, laboratory handling and analyses requirements, and Quality Control (QC) procedures for City approval.

The sediment in the marinas and the nearby channel will be characterized to determine quality and chemical composition. Sediment samples will be collected at several locations for physical testing and chemical analysis. Project personnel will navigate a small motorboat to the approximate sampling locations and, once anchored, collect samples and confirm coordinates via GPS. Bottom conditions and sediment characteristics will be carefully recorded at all selected sample locations. Sediment samples will be collected using a sediment sampling device, such as a Ponar Dredge Sampler, a Van Veen Grab Sampler, a hand auger, or a pipe sampler from the side of the boat. Samples will be collected from the full depth of the expected dredging activities to get a representative sample. Sediment core samples will also be inspected for layering to evaluate the potential for differing rates of sediment mobility during dredging activities. URS will record textural descriptions of each sediment layer and its depth and thickness at each sample location. Grain size distribution will be estimated in the field at all sample locations. In addition, URS will record observations of sediment surface quality/particle size to confirm consistency within the marina and channel area or identify the need for additional sampling locations. The locations of all sediment depth probes and samples collected will be shown on the Sampling and Analysis Protocols Plan.


Deerfield Island – Proposed Mitigations Site

Samples will be collected and submitted for laboratory analysis of volatiles, semivolatiles, metals, pesticides, and PCBs, as well as physical characteristics such as grain size distribution. Samples will be tested from several locations to define the gradation of the sediments by sieve and/or hydrometer method, Atterberg limits, and organic content by burn method.

Project Meeting

URS staff will meet to discuss the following:

- Results of the material sampling
- Preferred dredging methods,
- Disposal/reuse options and disposal sites,
- Logistics of a phased dredging approach to maintain access to the marina.

In addition, the analytical results of the sediment samples will be reviewed and recommendations made regarding its management and ultimate disposal. The goal is to prepare and submit applicable waste transportation and disposal profiles and manifests and receive disposal facility approvals in advance of dredging operations. Permit application requirements will also be addressed at the project meeting as well as any environmental, design or construction management concerns. Meeting minutes will be kept and incorporated into the Materials Sampling and Analysis Report.

Materials Sampling and Analysis Report

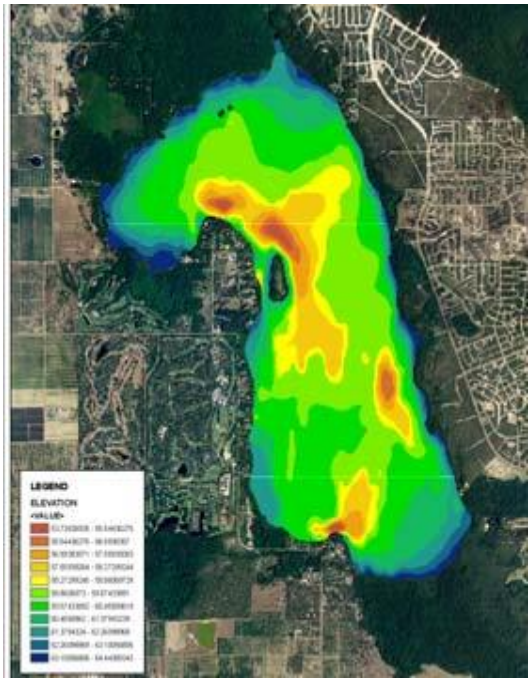
URS will prepare a Materials Sampling and Analysis Report that summarizes the findings of the material chemical and physical sampling analyses. This report will include sediment management removal and disposal options. Options for material disposal and/or beneficial reuse based on results of the chemical sediment analyses will also be discussed so that they may be considered in this study. A regional landfill authority and/or any other entity/disposal facility locations the City is interested in potentially entering into negotiations with to accept dredged material will be identified. The report will also include the following:

- Material sampling results
- Hydraulic and mechanical dredging alternatives evaluation
- Screening and reuse of the dredged material evaluation
- On-site and off-site disposal alternatives evaluation
- Environmental impacts and regulatory agency conditions/issues summary
- Preferred dredging and disposal alternatives recommendation

Bathymetric Survey

The bathymetric survey will be completed using a small, rigid, inflatable survey boat powered by an electric motor in an effort to maximize data coverage to the extent possible. However, data coverage will be limited if docked boats are present in the survey areas at the time of the respective surveys. Continuous bathymetric data will be collected along a series of profile lines spaced approximately 20 feet apart and extending the full extent of the designated survey area.

The bathymetric data would be collected using a Sonarmite echosounder or equivalent system optimized for shallow water surveying. The echosounder would be linked to a Trimble differential global positioning system (DGPS) to provide positional data concurrent with the bathymetric data. The echosounder uses a single-frequency, 235-kilohertz transducer optimized for high-resolution mapping of the sea floor in shallow water. The transducer would be mounted to a vertical pole affixed to the stern of the boat and be positioned below the water line; the corresponding measured draft would be added to the acquired depth measurements. Manual water bottom depth measurements will be taken at the start of the survey at each area to ensure that the echosounder is functioning properly.



Additional manual depth measurements will be obtained periodically during the survey to verify continued proper functioning.

The raw water depth information recorded by the bathymetric survey system will be converted to Low Water Datum elevations during the data processing phase. The elevation of the water surface will be surveyed immediately before and immediately after the completion of the bathymetric survey at each station using a real-time kinematic (RTK) GPS system. The pre-survey and post-survey water surface elevations will be evaluated to develop a correction table to facilitate removal of tidal variations from the raw water depth data, where applicable. Horizontal positional information will be in the Florida State Plan coordinate system and referenced to the North American Datum of 1983. Where necessary, URS will also use the RTK GPS and stadia rod to directly measure and record river bottom elevations in areas adjacent to the piers and docks that are inaccessible to the survey boat.

The optional bathymetric survey report will include a description of survey approach and results. A topographic contour map showing the elevation of the water bottom at a 1-foot contour interval will also be included. The bathymetric contour maps will be overlain on existing AutoCAD base maps.

Sampling Deliverables

3.1 Sampling Plan
3.2 Draft Materials Sampling & Bathymetric Report
3.3 Final Materials Sampling & Bathymetric Report

Task 4. Stakeholder Coordination

URS will conduct progress presentations at up to two regularly scheduled FIND meetings. URS understands that the coordination with FIND is critical as the two projects are interdependent and there will be a great benefit from using common resources for the completion of the both projects.

Stakeholder Meetings

If needed, URS will conduct meetings with the City groups and stakeholders to coordinate marina impacts and mitigation strategies with neighbors and users. URS has excellent meeting facilitators who encourage a calm, organized, and respectful discussion environment. They know how to juggle competing needs and opinions with the goal of garnering consensus on the path forward.

Meeting Deliverables

4.1 Meeting agendas
4.2 Presentation materials and handouts
4.3 Meeting minutes/summary notes with action items

Task 5. Design Development

Beyond the environmental component of the project, URS' local and global dredging experience allows for development of dredging plans that adhere to the constructability requirements and limits interference with the Bahia Mar and Las Olas Marinas.

The conceptual design, prepared previously by our URS team, will be utilized to develop 100% construction plans and specifications (in 30%, 60%, and 100% phases).

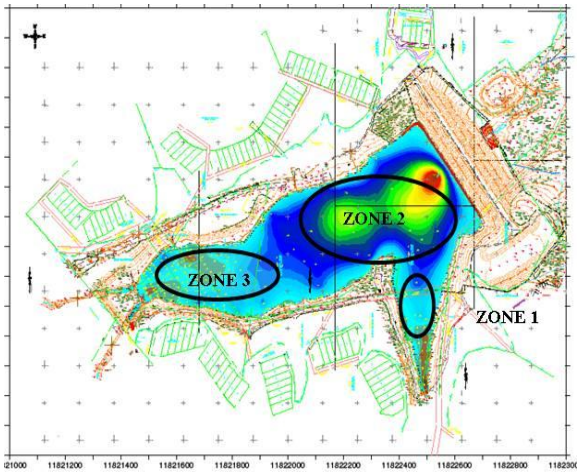
With the original design team assembled and ready, the selection of the URS team for this project would allow for immediate forward progress from notice to proceed to 30% design development, and quickly on to Construction Documents, to meet the critical path schedule for coordination with the FIND project.

During the conceptual design, URS identified concerns with the existing piles and seawalls. URS proposes to conduct pile integrity tests and evaluate Las Olas Marina and Bahia Mar marina structures to assess potential impacts of increased water depths on pile and seawall stability. Appropriate solutions will be evaluated and presented whenever warranted.

30% Construction Plans

URS will develop a preliminary site and grading plan of the proposed work to identify design criteria, underwater topography and depths, and preliminary dredge quantities and associated costs. The plan will be based on a new bathymetric survey that will performed once the mitigation and permitting is approved so that the design is based on the most current conditions.

The preliminary design plan will consist of enough detail to convey what the final design will entail. The plan will show the anticipated limits of disturbance, proposed access, staging areas, and a preliminary phased approach to maintain access to the marinas Marina during construction activities. The construction plans will identify and make necessary provisions for any regulatory restrictions governing the proposed work as required by all permit regulatory agencies.



To identify the most economical and acceptable dredge design, URS will conduct a feasibility evaluation of potential dredging and staging alternatives consisting of the following:

- ***Aesthetics and Logistics:*** We will consider the visual and logistical aspects of the proposed dredging activities and recommend measures to minimize environmental disturbance and impacts to the marinas' services.
- ***Assessment of Technical Issues:*** We will summarize technical issues that pertain to the site, such as erosion and sediment control, potential downstream impacts, off-site issues, and potential utility impacts.
- ***Construction Issues:*** Construction issues, such as potential impacts to infrastructure or off-site impacts will be noted.
- ***Spoil Management:*** During the early project stages, disposal options and trucking and/or barge routes for transport of the material will be identified and vetted with the City to determine the best options for this project. Disposal locations, confined disposal facilities for dredged material and other like facilities will be investigated. Beneficial use options for the dredged material will also be investigated to weigh all options for feasibility, costs, and value-added, as in the case of a beneficial use/reuse of the material as a sustainable management alternative. URS understands that the City would like to utilize FIND's dredged materials disposal site.

Cost Estimation: Based on all the steps described above URS will provide the most efficient and economical based on current industry standards. We will develop an engineer's cost estimate based on our judgment and experience that includes design, permitting, and construction costs. We will also identify costs related to potential operation and maintenance requirements.

URS routinely provides cost estimate information for both conceptual designs and final designs. Our engineers review bid tabulations and fully understand actual construction costs. The estimate will be peer reviewed by one of our professional cost estimators.

30% Construction Plans Deliverables

5.1 Preliminary site and grading plan of proposed work and cross-sections
5.2 Preliminary erosion and turbidity control plan
5.3 A preliminary Opinion of Probable Construction Costs (OPCC)
5.4 Estimate of the quantity of material to be dredged
5.5 Preliminary spoil management plan in coordination with FIND

60% Construction Plans Documents

URS will prepare a 60% Construction Plan set of the proposed work for City review based on the Preliminary Concept Plan presented to the City at a design review meeting. Any changes requested by the City during the meeting will be incorporated into the plans during this phase of the project.

In addition to the plan set, a draft Project Manual will be submitted to the City. The draft Project Manual will include technical specifications, special provisions, and conditions bid forms to supplement the construction plans in the bid documents. An updated construction cost estimate and construction schedule will also be provided to the City.

The City will review the 60% Construction Plan Documents and provide review comments to URS for incorporation into the 100% Construction Plan Document set.

60% Construction Plans Deliverables

5.6 Comment response to preliminary 30% comments
5.7 60% Construction Plans
5.8 60% Erosion and turbidity control plan
5.9 60% Project Manual including technical specifications, special provisions, bid forms
5.10 60% Construction Project Schedule
5.11 60% Opinion of probable construction cost
5.12 60% spoil management plan in coordination with FIND

100% Construction Plan Documents

The project team will incorporate City review comments of the 60% Construction Plan Documents and prepare 100% Construction Plans for the proposed work. The Plans will comply with City of Alexandria codes and standards and be complaint with state regulations specified in this proposal.

The City will review the 100% Construction Plan Documents and provide review comments to URS for incorporation into the final Construction Plan Document set/Bid Documents.

100% Construction Plans Deliverables

5.13 Comment response to preliminary 60% comments
5.14 100% Construction Plans
5.15 100% Erosion and turbidity control plan
5.16 100% Project Manual including technical specifications, special provisions, bid forms
5.17 100% Construction Project Schedule
5.18 100% Opinion of probable construction cost
5.19 100% Spoil Management Plan in coordination with FIND

Task 6. Bid Phase Support

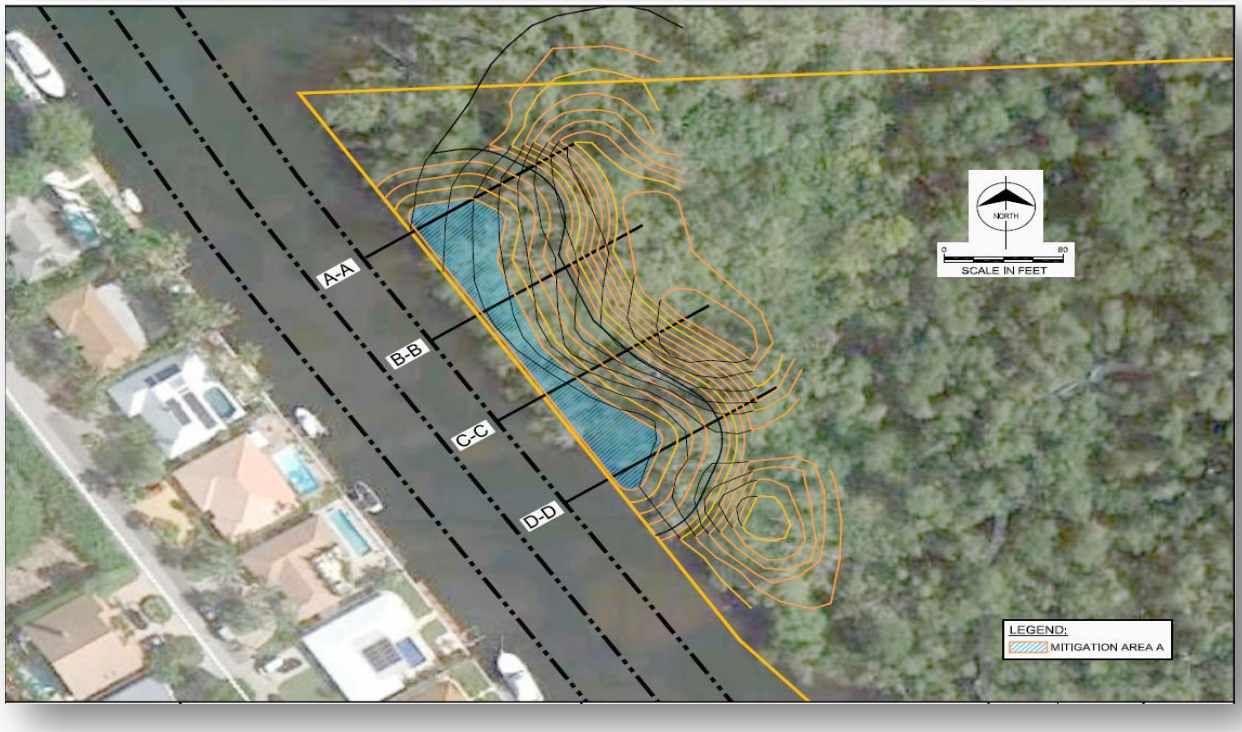
As part of the Bid Phase, URS will assist the City through bid advertisement, bidding, and award of the construction contract for this project. It is understood that services requested by the City using this phase may include attending the pre-bid conference, reviewing bids, and preparing a bid tabulation.

Bid Documents

URS will incorporate any comments from the City regarding the 100% Construction Documents into the final plan set/bid documents. Signed and sealed paper copy plans of all bid documents will then be provided to the City for final review and approval.

Bid Documents Deliverables

6.1 Tabulation Sheet
6.2 Construction Plans
6.3 Technical Construction Specifications
6.4 Construction Cost Estimate
6.5 Project Manual



Task Deliverables Schedule

URS prepared this Task Deliverable Schedule for the dredging project. URS will coordinate with the City and FIND to determine the due dates for deliverables.

Deliverables	Due Date (TBD)
Task 1 - Project Management	
1.1 Project schedule in Microsoft Project format 1.2 Meeting agendas, presentation materials, and summary notes (with action items) 1.3 Permit summary memo and application tracking 1.4 Biweekly project progress reports 1.5 Kickoff Meeting - Meeting minutes 1.6 Biweekly Meetings – Meeting minutes	
Task 2 - Permit Applications	
2.1 Permit applications and submittals to • USACE, • NMFS, • FDEP and • BCEPGMD 2.2 Environmental Assessment Report 2.3 Benthic surveys results 2.4 Geotechnical investigation reports 2.5 Hydrographic and bathymetric surveys results 2.6 Legal description and sketches of State of Florida SSL and related easements 2.7 Dredging Plan including: 2.7.1 Lateral extent of sediments/lateral extents of area of proposed dredging 2.7.2 Associated avoidance and minimization of impacts plan 2.7.3 Estimate of sediment to be removed from the project areas 2.8 Cost estimates and Schedules as required 2.9 Monitoring plan, Long-term management plan and Adaptive management plan 2.10 Spoil Management Plan	
Task 3 - Materials Sampling and Analysis	
3.1 Sampling Plan 3.2 Draft Materials Sampling & Bathymetric Report 3.3 Final Materials Sampling & Bathymetric Report	
Task 4 - Stake Holder Coordination	
4.1 Meeting agendas 4.2 Presentation materials and handouts 4.3 Meeting minutes/summary notes with action items	

Task 5 - Design Development	
30% Preliminary Construction Plans & Documents 5.1 Preliminary site and grading plan of proposed work and cross-sections 5.2 Preliminary erosion and turbidity control plan 5.3 A preliminary Opinion of Probable Construction Costs (OPCC) 5.4 Estimate of the quantity of material to be dredged 5.5 Preliminary spoil management plan in coordination with FIND	
60% Construction Plans & Documents 5.6 Comment response to preliminary 30% comments 5.7 60% Construction Plans 5.8 60% Erosion and turbidity control plan 5.9 60% Project Manual including technical specifications, special provisions, bid forms 5.10 60% Construction Project Schedule 5.11 60% Opinion of probable construction cost 5.12 60% spoil management plan in coordination with FIND	
100% Construction Plans & Documents 5.13 Comment response to preliminary 60% comments 5.14 100% Construction Plans 5.15 100% Erosion and turbidity control plan 5.16 100% Project Manual including technical specifications, special provisions, and bid forms 5.17 100% Construction Project Schedule 5.18 100% Opinion of probable construction cost 5.19 100% Spoil Management Plan in coordination with FIND	
Task 6 - Design Development	
6.1 Tabulation Sheet 6.2 Construction Plans 6.3 Technical Construction Specifications 6.4 Construction Cost Estimate 6.5 Project Manual	

SECTION 7: REFERENCES

South Florida Water Management District:

Jian Cai, P.E.
5612.686.8800
Jcai@sfwmd.gov

USACE Critical Project, Lake Trafford Restoration and Dredge Project

URS was engaged by the SFWMD to provide design drawings and specifications for dredging of the USACE Critical Project - Lake Trafford Restoration in Collier County, Florida.

The approximate 1500-acre lake was becoming filled with muck sediments, which vary in thickness from 1 to over 3 feet. URS performed undisturbed sampling of the lake's water, muck and lake bed sediments to characterize muck thickness and elevations of muck across the lake. Lake bed and muck elevations were contoured and dredging plan and sections developed for about 1000 acres of the site.

URS' scope of services included the detailed design of a 500 acre Contained Disposal Facility (CDF) for the dredge spoil storage and containment. URS designed a three-phase disposal cell system which allows cells to be alternatively filled and drained/rested therein allowing the deposited muck spoils to consolidate under their self weight thus providing additional storage capacity in the cells.

URS provided detailed geotechnical stability and seepage analyses for the containment embankments in conjunction with the sizing design of the cells considering various sizes of dredges to potentially be used for the work. The completed design includes a polishing pond for final turbidity clarification needs or for the treatment of dredge effluent to meet state water quality for discharge back to Lake Trafford.

URS subsequently provided construction phase services including submittal reviews, bi-weekly progress meeting attendance, water quality monitoring and evaluation, monthly progress reporting and interaction with regulatory agencies and stakeholder meetings

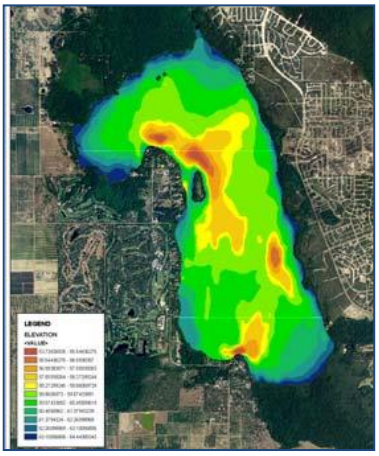
Florida Fish and Wildlife

Raymond Watson
863.647-4000
Raymond.watson@myfwc.com

Lake Marion - Dredge Feasibility Study

URS was retained by the Florida Fish and Wildlife Conservation Commission (FWC) to evaluate the feasibility of dredging the muck layer from Lake Marion. Lake Marion is one of the largest lakes (2,995 acres) on the Lake Wales Ridge and is one of ten lakes in Polk County with declining water quality. FWC attributed the suspended muck within the lake, as being responsible for the declining health of the lake which recently transitioned to a eutrophic condition.

One key elements of the project was to accurately map, characterize and profile the lake sediments. Due to the presence of the fine grained organic sediments, the bathymetric survey was conducted using dual frequency sonar sounder in conjunction with ground penetrating radar (GPR) system. Survey results were then verified using hand probes and core samples to further refine and calibrate the bathymetric survey data. The quantity of muck in the lake was calculated to be in excess of 16.5 million cu yd, with muck layers varying in thickness from 0.1-ft to 23.9-ft.



Sediment sampling revealed the lake sediment stratigraphy to consist of a flocculent muck layer, underlained by a gelatinous muck layer, followed by an intermediate layer of peat, with a layer of quartz sand at the bottom. Chemical analysis indicated that arsenic and mercury in some sediment samples exceeded threshold effects levels. Based on assessment results, it was determined that lake's flocculent layer of muck is block out sunlight penetration and is hindering the growth of Submerged Aquatic Vegetation (SAV).

URS also conducted an evaluation of potential upland disposal areas. Several screening criteria were used to identify potential disposal areas which were of sufficient size and with drainage characteristics to support dewatering and temporary or permanent disposal of the dredge material. Several dredging scenarios were evaluated, but due to volume of muck in the lake (16.5 million cu yd), removal would be in access of $50 million.

Therefore, to meet the FWC's objectives to restore the lake's water quality and promote more SAV growth at a more reasonable cost, URS' dredge design team developed and prepared conceptual design plans for an innovative dredging approach which utilizes in-lake sediment capture and lock-up the lake's flocculent muck sediments. URS' innovative conceptual dredge plan was shown to provide over $50 million in cost savings over conventional dredging operations and was accepted by the FWC as the preferred alternative to move forward with pilot testing.

City of Wilton Manors

Patrick Cann
954.390.2131
pcann@wiltonmanors.com

Wilton Manors F.I.N.D. Grant Maintenance Dredging

URS Corporation was retained by the City of Wilton Manors to provide professional civil engineering services for maintenance dredging of previously dredged areas in the South Fork of Middle River, Broward County, Florida

The approximate 6200 linear feet of Middle River was build up with the sediments in some areas so severely that the city was no longer able to maintain the banks or channel, as the maintenance boat was not able to navigate the shallow depths and the marine patrol was unable to patrol the waterway and provide speeding patrols and property security for the residents

URS provided grant services which included application for Florida Inland Navigation District (FIND) grant for canal dredging, as well as the supplemental construction funds for City's proposed boat ramp and neighborhood park project.

URS developed construction drawings and technical specification for the dredging activities on the waterway. Our scope of services also included permitting services.

Section 8: M/WBE Participation

Although dredging contracts are highly specialized and M/WBE firms with applicable experience is limited, URS will use RADISE International, a highly qualified and certified MBE firm for geotechnical services.

RADISE offers Geotechnical and related engineering services using qualified personnel with years of experience to provide the most cost-effective determination of subsurface conditions. We have successfully performed a wide range of Geotechnical and related services for United States Army Corps of Engineers, Florida Department of Transportation, and many Florida companies, local government agencies (partial list).

RADISE
Infrastructure Engineers • Software Developers

The services can be grouped as follows:

- Exploration services
- Laboratory services
- Engineering services
- Construction Management and Inspection services

RADISE is a certified DBE firm with FDOT, holds MBE Certification for Broward County and Broward County School Board as well as WMBE/SBE Certifications with Palm Beach County and Palm Beach County School Board,. Also, we are a SBE certified with the City of West Palm Beach and are a qualified FDOT Professional Consultant for work types 3.1, 9.1, 9.2, 9.3, 9.4.1 and 9.5.

PALM BEACH COUNTY
OFFICE OF SMALL BUSINESS ASSISTANCE

CERTIFIES THAT

RADISE INTERNATIONAL, LLC.
VENDOR # RADI0050

is a Small/ Minority Business Enterprise as prescribed by section 2-80.21 – 2-80.35 of the Palm Beach County Code for a three year period from October 7, 2008 to October 6, 2011.

The following Services and/or Products are covered under this certification:

Boring, Drilling, Testing and Sounding
Computer Systems Design Services
Custom Computer Programming Services
Engineering Services, Inspection
Geological Engineering Services
Soil Testing Laboratories

Palm Beach County Board of County Commissioners

Addie L. Greene, Chairperson
Jeff Koons, Vice Chair
Karen T. Marcus
Robert J. Kanjian
Mary McCarty
Burt Aaronson
Jess R. Santamaria

County Administrator
Robert Weisman
Deputy County Administrator
Verdenia C. Baker

Hazel Oxendine, Director
10-7-2008

PALM BEACH COUNTY FLORIDA

URS is committed to supporting the progress of small businesses in our community. While URS can produce teams in-house to provide most required services, we've included RADISE international a MBE/WBE sub-consultant, onto our team due to their knowledge of the Las Olas Marina area and their specialized geotechnical expertise.

Sea Diversified, Inc. (SDI) is a certified Small Business Enterprise (SBE) as defined by the U.S. Small Business Administration's Size & Standards and State of Florida's Small and Minority Business Act of 1985, Florida Statute 288.703(1). SDI maintains certifications issued by recognized government agencies such as Florida Department of Transportation (FDOT), South Florida Water Management District (SFWMD), Palm Beach County (PBC), City of West Palm Beach.

URS also teamed with SBE- certified **Sea Diversified.** *We chose to team with SDI because of their intimate knowledge of the Las Olas Marina area and their specialized bathymetric and hydrographic surveying expertise.*

Section 9: Local Business Preference

LOCAL BUSINESS PREFERENCE CERTIFICATION STATEMENT

The Business identified below certifies that it qualifies for the local BUSINESS preference classification as indicated herein, and further certifies and agrees that it will re-affirm it's local preference classification annually no later than thirty (30) calendar days prior to the anniversary of the date of a contract awarded pursuant to this ITB. Violation of the foregoing provision may result in contract termination.

(1) _____ Business Name is a **Class A** Business as defined in City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. A copy of the City of Fort Lauderdale current year Business Tax Receipt **and** a complete list of full-time employees and their addresses shall be provided within 10 calendar days of a formal request by the City.

(2) _____ Business Name is a **Class B** Business as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. A copy of the Business Tax Receipt **or** a complete list of full-time employees and their addresses shall be provided within 10 calendar days of a formal request by the City.

(3) _____ Business Name is a **Class C** Business as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. A copy of the Broward County Business Tax Receipt shall be provided within 10 calendar days of a formal request by the City.

(4) _____ Business Name requests a **Conditional Class A** classification as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. Written certification of intent shall be provided within 10 calendar days of a formal request by the City.

(5) _____ Business Name requests a **Conditional Class B** classification as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. Written certification of intent shall be provided within 10 calendar days of a formal request by the City.

(6) URS Corporation Southern Business Name is considered a **Class D** Business as defined in the City of Fort Lauderdale Ordinance No. C-12-04, Sec.2-199.2. and does not qualify for Local Preference consideration.

BIDDER'S COMPANY: URS Corporation Southern

AUTHORIZED COMPANY PERSON: Panneer Shanmugam, PE _____ 9/24/2014.
NAME SIGNATURE DATE

SECTION 10: SAMPLE INSURANCE CERTIFICATE

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 01/08/2014

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER MARSH RISK & INSURANCE SERVICES 345 CALIFORNIA STREET, SUITE 1300 CALIFORNIA LICENSE NO. 0437153 SAN FRANCISCO, CA 94104 URSCOR-ALL-PROF-13-15 Boc FL Eviden	CONTACT NAME: PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS:
INSURED URS Corporation Southern 7800 Congress Avenue, Suite 200 Boca Raton, FL 33487	INSURER(S) AFFORDING COVERAGE — NAIC # INSURER A : National Union Fire Ins Co Pittsburgh PA — 19445 INSURER B : Zurich American Insurance Company — 16535 INSURER C : Illinois National Ins Co — 23817 INSURER D : Insurance Company Of The State Of PA — 19429 INSURER E : Lexington Insurance Company — 19437 INSURER F : Lloyd's Of London & British Companies — 15792

COVERAGES **CERTIFICATE NUMBER:** SEA-002304014-06 **REVISION NUMBER:** 11

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	**GENERAL LIABILITY**			GL 5142592	09/01/2013	09/01/2014	EACH OCCURRENCE	$ 2,000,000
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
	CLAIMS-MADE X OCCUR						MED EXP (Any one person)	$ 10,000
	X XCU, BFPD						PERSONAL & ADV INJURY	$ 2,000,000
	X Contractual Liability						GENERAL AGGREGATE	$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$ 2,000,000
	POLICY X PRO-JECT LOC							$
B	**AUTOMOBILE LIABILITY**			BAP938521504	09/01/2013	09/01/2014	COMBINED SINGLE LIMIT (Ea accident)	$ 2,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS / NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	UMBRELLA LIAB OCCUR						EACH OCCURRENCE	$
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$
	DED RETENTION $							$
A	**WORKERS COMPENSATION AND EMPLOYERS' LIABILITY** Y / N			SEE ATTACHED - ACORD 101	01/01/2014	01/01/2015	X WC STATU-TORY LIMITS OTH-ER	
D	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N	N / A		SEE ATTACHED - ACORD 101	01/01/2014	01/01/2015	E.L. EACH ACCIDENT	$ 2,000,000
C	**(Mandatory in NH)** If yes, describe under DESCRIPTION OF OPERATIONS below			SEE ATTACHED - ACORD 101	01/01/2014	01/01/2015	E.L. DISEASE - EA EMPLOYEE	$ 2,000,000
							E.L. DISEASE - POLICY LIMIT	$ 2,000,000
E	Prof. Liab w/Lmtd Contractual			015438088	09/01/2013	09/01/2014	Each Claim	$1,000,000
F	Claims Made / Retro 11-17-1938			PP1307135	09/01/2013	09/01/2014	Aggregate	$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
Evidence of Insurance

CERTIFICATE HOLDER	CANCELLATION
SPECIMEN	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE of Marsh Risk & Insurance Services Lynne Harrington

ACORD 25 (2010/05) The ACORD name and logo are registered marks of ACORD

Section 11: Joint Ventures

URS will serve as a sole PRIME Consultant

There will not be a joint venture arrangement.

Section 12: Sub-Consultants

We have elected to use sub-consultants for this contract. They will provide assistance to the overall URS team with the following services:

- Sea Diversified — 16 years of hydrographic, bathymetric and mapping experience
- RADISE International — 14 years of geotechnical engineering experience
- Pace Analytical — 40 years of full services environmental laboratory experience
- Gulf Engineers & Consultants — 28 years of coastal engineering experience

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SEA DIVERSIFIED, is a privately-owned and operated multi-disciplinary surveying and mapping firm with fully-staffed and established offices in Delray Beach (Palm Beach County) and Melbourne (Brevard County), Florida. Founded by William T. Sadler Jr., PSM, PE, a long-time resident of Florida and graduate of Florida Atlantic University with a B.S. Degree in Ocean Engineering, SDI was originally organized to provide surveying and mapping services specifically within and around the marine environment.

Specific services include automated hydrographic surveying (single & multi-beam bathymetry), topographic surveying, beach and nearshore profiling, GPS surveying, wave/current/tide data collection, diver-assisted surveys and remote sensing surveys encompassing side scan sonar, magnetometer and sub-bottom profile investigations.

Such expertise has been applied to projects throughout the State for other governmental entities such as the Florida Department of Environmental Protection (FDEP), Florida Department of Transportation (FDOT), Florida Inland Navigation District (FIND), South Florida Water Management District (SFWMD), Lee County, Palm Beach County Department of Environmental Resources Management (PBCDERM) along with numerous municipalities including the City of New Smyrna Beach, City of Daytona Beach, City of Sanibel Island, City of Ft. Lauderdale, City of Plantation and the City of Pahokee.

SDI is specialized in several very unique services including:

- Single & Multi-Beam bathymetric data acquisition from inland (shallow-water) to offshore hydrographic surveys
- Acoustic Doppler Current Profile (ADCP) studies encompassing deployment, monitoring and retrieval of automated self-recording gauges
- Water level and tide studies encompassing deployment, monitoring and retrieval of automated self-recording gauges
- Diver-assisted surveys including underwater video and sediment sampling
- Side scan sonar for underwater mapping & characterization of submerged bottom features
- Magnetometer investigations for underwater detection & mapping of features of ferrous composition such submerged/buried cables and pipelines & manmade debris

SDI specializes in land and in-water surveys; the firm is unique in that they operate in some of the most remote and difficult terrain in central and south Florida. SDI field crews are equipped and trained to work in areas where most firms are not willing or capable. Clients benefit from having SDI onboard with the understanding that the firm possesses the experience, versatility and ability to perform survey work within the most challenging areas of the state.

SDI maintains a complete inventory of only the latest in technology for surveying and mapping including a fleet of survey launches and land-based vehicles for access and operations in essentially any environment. All survey equipment is owned and maintained by the firm and is continuously updated in both hardware and software to stay on top of industry standards. SDI field employees are trained in the correct operation of equipment and are required to attend classes and other educational seminars to ensure quality of data collection and processing. Data processing, CADD technicians and GIS analysts are equally equipped with only the latest in computer technology including software and plotters to produce maps and other required deliverables efficiently and to the greatest level of quality.

SDI is licensed by the State of Florida Board of Professional Surveyors and Mappers and Board of Professional Engineers. All survey operations are conducted under the responsibility of a Professional Surveyor and Mapper registered in the State of Florida.

Sea Diversified, Inc. (SDI) is a certified Small Business Enterprise (SBE) as defined by the U.S. Small Business Administration's Size & Standards and State of Florida's Small and Minority Business Act of 1985, Florida Statute 288.703(1). SDI maintains certifications issued by recognized government agencies such as Florida Department of Transportation (FDOT), South Florida Water Management District (SFWMD), Palm Beach County (PBC), City of West Palm Beach, and can display the Teams' role in fulfilling DBE/SBE goals for this contract.

RADISE INTERNATIONAL, LC has provided Professional Geotechnical Engineering and Construction Material Testing Services since 1997. RADISE has provided Geotechnical Engineering, Construction Inspection and Materials Testing Services to Broward and Palm Beach Counties, the City of West Palm Beach, the Florida Department of Transportation (FDOT), South Florida Water Management District, and cities (Coral Springs, Boca Raton and Jupiter.

RADISE
Infrastructure Engineers • Software Developers

RADISE holds all the required licenses in active status from the State of Florida and Board of Professional Engineers to run our Geotechnical Professional Engineering, Construction Inspection and Material Testing, and Threshold Inspection Business. RADISE Laboratory is certified by CMEC, approved by the FDOT, AMRL (AASHTO) accredited and validated by United States Army Corps of Engineers. They are MBE certified firm.

PACE ANALYTICAL is a privately held, full service sampling and analytical services firm operating a network of 21 environmental laboratories and 12 service centers nationwide, plus two life sciences laboratories. All of Pace's full-service environmental laboratories are NELAC accredited. These laboratories utilize U.S. EPA, ASTM, standard methods, NIOSH, and other accepted test procedures and methods, in accordance with federal and state regulations.

Capabilities:

- Full-service environmental laboratory testing of waters, soil, and solid matrices
- Drinking and bottled water (DW) laboratory services for:
  - UCMR3
  - Synthetic Organic Compounds (SOCs)
  - Volatile Organic Compounds (VOCs)
  - Disinfection Byproducts
  - Primary and Secondary Inorganics
  - Microbiological parameters
  - Dioxin *(performed by Pace Minnesota)*
  - Radiochemistry parameters *(performed by Pace Pittsburgh)*
- Rapid Response Nationwide Program, 24/7 Schedule
- Field Sampling Services
- EDDs in virtually any format (ADaPT)
- PacePort – 24/7 client access to all data, records, and tool to auto-compare data to regulatory and permit limits.

GULF ENGINEERS & CONSULTANTS (GEC) was established in 1986 as a small engineering consulting firm in Baton Rouge, Louisiana, GEC has grown over the years into a firm of national prominence by providing integrated planning, design, and construction management services for coastal, structural, harbor, and water resources engineering; environmental; and transportation projects to public and private clients nationwide.

GEC offers clients access to hundreds of talented and experienced engineering, planning, economic, environmental, and Geographic Information Systems (GIS) professionals working from offices in Florida (Delray Beach and Jacksonville), Louisiana, Mississippi, and California. Personnel draw from their training and experience to overcome challenges associated with any type of land or water project, regardless of size or level of complexity. Clients include counties and municipalities across the U.S., state agencies such as Florida Inland Navigation District (FIND), and federal agencies such as U.S. Army Corps of Engineers, Jacksonville District and more than 20 other districts.

Seeking to augment its coastal management capabilities, GEC recently (1) hired Dr. Rajesh Srinivas, P.E., with over 24 years of Florida, national and international experience in coastal and water resources engineering, and (2) acquired Noble Consultants, Inc. (NCI), a 50-year old firm with global experience in coastal, structural, harbor, and water resources engineering.

The interdisciplinary nature of beach nourishment and restoration, erosion control, and shoreline stabilization projects requires expertise in several core disciplines such as coastal planning, coastal and civil engineering design, environmental sciences, surveying, and construction management. GEC has an in-house team of engineers and scientists, many with M.S. and Ph.D. degrees, whose academic training and professional expertise in the coastal environment guarantees to our clients integrated consulting services during every stage of the project life. GEC's coastal management-related capabilities include:

- Dredging analysis and dredged material management
- Wave, tide, and current measurements
- Wave, hydrodynamic, beach, sediment transport, and water quality modeling
- Coastal processes analysis
- Beach nourishment and shoreline stabilization and erosion control structures design
- Plan formulation and preparation of complex federal decision documents
- Economics and cost estimating
- Plans and specifications preparation
- Environmental assessments and impact statements
- Federal, state, and local permitting
- Construction management and inspection

Under contract with the Jacksonville District, GEC has performed several task orders involving dredged material management for deep water ports, environmental restoration, flood control, marine biology and water management. This includes Port Everglades ODMDS Expansion Environmental Assessment; Update of Tampa Harbor Dredged Material Management Plan and Preparation of an Environmental Assessment with Fish and Wildlife Coordination Act Report; and Analysis of O&M Dredging Benefits for the Miami River, Revised Dredged Material Management Plan with Environmental Assessment, Suwannee River.

The firm's heavy construction and marine dredging experience includes planning, design, permitting, and construction supervision of open ocean work and port facilities that includes hydraulic cutter suction, clamshell, trailing hopper, and other specialized dredge equipment.

Section 13: Non-Collusion Statement

NON-COLLUSION STATEMENT:

By signing this offer, the vendor/contractor certifies that this offer is made independently and *free* from collusion. Vendor shall disclose below any City of Fort Lauderdale, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement.

Any City of Fort Lauderdale, FL officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement.

For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.

In accordance with City of Fort Lauderdale, FL Policy and Standards Manual, 6.10.8.3,

3.3. City employees may not contract with the City through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g. ownership of five (5) percent or more).

3.4. Immediate family members (spouse, parents and children) are also prohibited from contracting with the City subject to the same general rules.

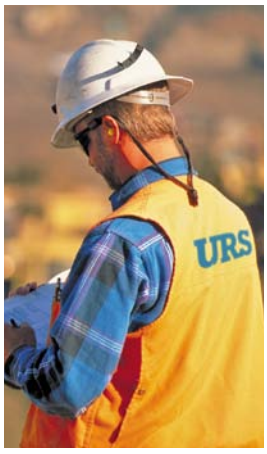
Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

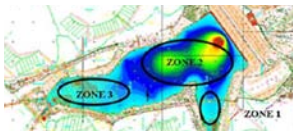
NAME	RELATIONSHIPS
_____	_____
_____	_____
	_____
	_____

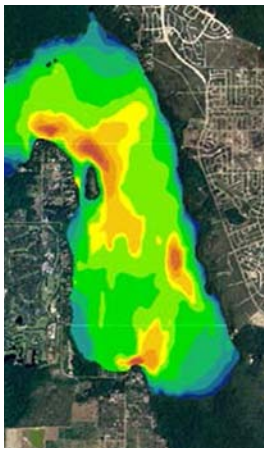
In the event the vendor does not indicate any names, the City shall interpret this to mean that the vendor has indicated that no such relationships exist.

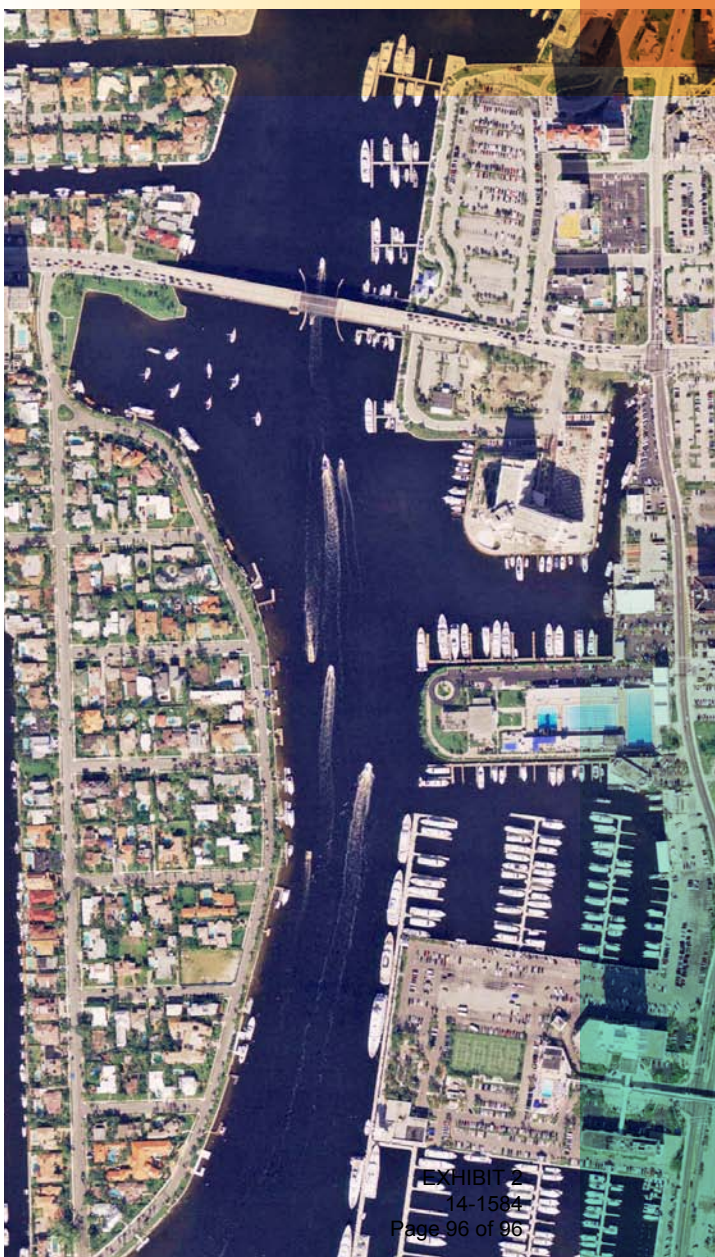
9/24/2014

CITY OF FORT LAUDERDALE









URS Corporation Southern
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Boca Raton, FL 33487