ARCHITECT – ENGINEER QUALIFICATIONS

PART I – CONTRACT SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*
Bridge Engineering Consulting Services

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
2/5/2014	RFQ # 246-11376

B. ARCHITECT – ENGINEER POINT OF CONTACT

4. NAME AND TITLE
Henri Sinson, PE

5. NAME OF FIRM
Hardesty & Hanover, LLC

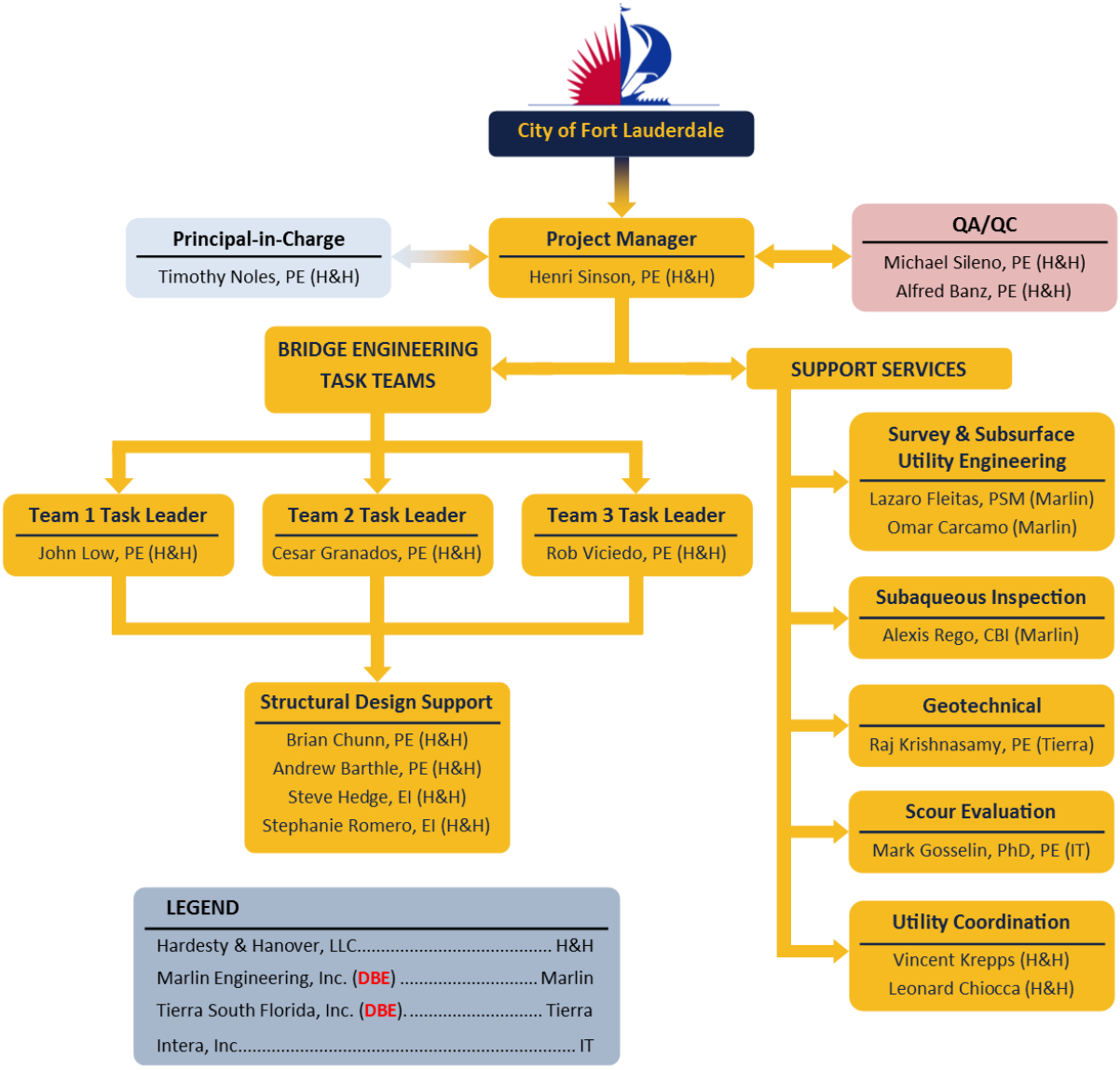
6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
954-835-9119	954-835-9130	hsinson@hardesty-hanover.com

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.	X			Hardesty & Hanover, LLC **[x]** CHECK IF BRANCH OFFICE	1000 Sawgrass Corporate Parkway Suite 544 Sunrise, FL 33323	Bridge Design & Inspection
b.			X	Marlin Engineering **[ ]** CHECK IF BRANCH OFFICE	2191 NW 97th Avenue Doral, FL 33171	Surveying & Mapping/Subaqueous Inspection
c.			X	Tierra South Florida, Inc **[ ]** CHECK IF BRANCH OFFICE	2209B NE 54th Street Ft. Lauderdale, FL 33308	Geotechnical Engineering
d.			X	Intera, Inc. **[ ]** CHECK IF BRANCH OFFICE	100 SW 75th Street Suite 107 Gainesville, FL 32607	Scour Analysis
e.				**[ ]** CHECK IF BRANCH OFFICE		
f.				**[ ]** CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM **[x]** *(Attached)*



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
Timothy J. Noles, PE	Principal in Charge	28	28

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BSCE	FL - Civil Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Bridge Inspection Course, NYSDOT PSMJ Project Management Boot Camp Seismic Analysis Seminar
FICE-FDOT Project Management Seminars LRFD Training Seminar

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Siesta Key Bridge over ICWW, Sarasota County, FL

(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

The Project includes preparation of structural, architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery retrofit, electrical system improvements, control house modifications and deck replacement. **Principal in charge** of the rehabilitation design services for this **double-leaf bascule bridge.**

b.

(1) TITLE AND LOCATION *(City and State)*
SR15 Over Taylor Creek, Okeechobee County, FL

(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

The Project includes preparation of architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins trunnion single leaf bascule span bridge. The rehabilitation includes machinery retrofit, electrical system improvements and control house modification. **Principal in charge** of the rehabilitation design services for this **single-leaf Bascule Bridge.**

c.

(1) TITLE AND LOCATION *(City and State)*
Cortez Bridge, Manatee County, FL

(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

This project was part of Districtwide On-call Structures and includes preparation of structural, architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery retrofit, electrical system improvement & control house modifications. **Principal in charge** of the rehabilitation design services for this double-leaf bascule bridge.

d.

(1) TITLE AND LOCATION *(City and State)*
Hillsborough Avenue Vertical Lift over Hillsborough River, Tampa, FL

(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

The project includes preparation of mechanical and electrical plans to repair/rehabilitate this span driven vertical lift bridge. The rehabilitation includes sheave replacement, wire rope replacement, span lock repairs and electrical system upgrades. **Principal in charge** of the rehabilitation design services for vertical lift bridge.

e.

(1) TITLE AND LOCATION *(City and State)*
Hillsborough Avenue Bascule over Hillsborough River, Tampa, FL

(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

The project includes preparation of structural, mechanical, and electrical plans to repair/rehabilitate this simpletrunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery repairs, electrical system upgrades, addition of barrier housed span locks and increases to the stiffness of the structural system in order to reduce vibrations. **Principal in charge** of the rehabilitation design services for this double-leaf bascule bridge.

f.

(1) TITLE AND LOCATION *(City and State)*
SR-924/NW 119th St./Gratigny Rd. Miami-Dade County, FL

(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

These work orders propose safety improvements at four intersections along this urban principal arterial, including extending and offsetting turn lanes, closing median openings, providing new signage/pavement markings, traffic signal modifications, and pavement widening/resurfacing. **Principal in charge**

g.

(1) TITLE AND LOCATION *(City and State)*
SR-953/LeJeune Rd. at SR-5/US-1 Miami-Dade County, FL

(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

Intersection safety improvements at this high-volume intersection include pavement resurfacing to provide new markings, installation of new traffic signal mast arms to accommodate additional signal heads, upgrades to pedestrian features such as curb ramps and crosswalk pedestals, and geometric modifications to eliminate illegal turning movements. **Principal in charge**

h.

(1) TITLE AND LOCATION *(City and State)*
Miami Ave over Miami River, Miami-Dade, FL

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

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

[x] Check if project performed with current firm

Principal in charge of $4 million rehabilitation of twin double leaf bascule span constructed in 1985. Project required replacement of bascule span deck grating and span locks and cleaning and painting of steel superstructure. Hydraulic system was also refurbished.

i.

(1) TITLE AND LOCATION *(City and State)*
17th Ave Bridge over Miami River, Miami, FL

(2) YEAR COMPLETED
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 in charge of $9 million rehabilitation of a simple trunnion double leaf bascule span constructed in 1924. Project required new bascule span floor system, and bridge railing to meet LRFD requirements. Project also included removal of open gearing operating system and replace with hydraulic gear motor and new relay logic electrical control system.

j.

(1) TITLE AND LOCATION *(City and State)*
Overseas Highway (US 1) over Channel 2, Craig Key, FL

(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 of repairs to prestressed AASHTO beams and reinforced concrete deck. Impressed current cathodic protection was also installed on the 6'-0" diameter drilled shaft columns.

k.

(1) TITLE AND LOCATION *(City and State)*
NW 63rd Street Bridge over East Channel of Indian Creek, Miami Dade, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2007
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 of $1 million substructure repairs to prestressed concrete piles. Repairs required an active impressive current application of cathodic protection.

l.

(1) TITLE AND LOCATION *(City and State)*
Pine Tree Ave over Flamingo Waterway, Miami Dade, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2007
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 of $1 million substructure repairs to prestressed concrete piles and reinforced concrete piers. Repairs required an active impressive current application of cathodic protection. CEI services also provided

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
Henri Sinson, PE	Project Manager	15	15

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MECE / BECE	FL – Civil Engineer

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

FDOT, Specification Package Training – 2004
ASCE, Seismic Design of Highway Bridges – 2002
SMJ, Project Management Boot camp – 2004
FHWA, High-Strength Concrete Seminar - 2000
NHI, Safety Inspection of In-Service Bridges - 1999
MUTCD, Work Zone Protection Workshop - 1999

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Siesta Key Bridge over ICWW, Sarasota County, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2/10 – 8/12
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The Project includes preparation of structural, architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery retrofit, electrical system improvements, control house modifications and deck replacement. **Project Manager** for the rehabilitation design services for this double-leaf bascule bridge.

b.

(1) TITLE AND LOCATION *(City and State)*
SR15 Over Taylor Creek, Okeechobee County, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 8/10 – Present
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The Project includes preparation of architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins trunnion single leaf bascule span bridge. The rehabilitation includes machinery retrofit, electrical system improvements and control house modification. **Project Manager** for the rehabilitation design services for this single-leaf bascule bridge.

c.

(1) TITLE AND LOCATION *(City and State)*
Cortez Bridge, Manatee County, FL

(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

This project was part of Districtwide On-call Structures and includes preparation of structural, architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery retrofit, electrical system improvement & control house modifications. **Project Manager** for the rehabilitation design services for this double-leaf bascule bridge.

d.

(1) TITLE AND LOCATION *(City and State)*
Hillsborough Avenue Bascule over Hillsborough River, Tampa, FL

(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

The project includes preparation of structural, mechanical, and electrical plans to repair/rehabilitate this simple trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery repairs, electrical system upgrades, addition of barrier housed span locks and increases to the stiffness of the structural system in order to reduce vibrations. **Project Manager** for the rehabilitation design services for this double-leaf bascule bridge.

e.

(1) TITLE AND LOCATION *(City and State)*
Hillsborough Avenue Vertical Lift over Hillsborough River, Tampa, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 3/12 – 2/13
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The project includes preparation of mechanical and electrical plans to repair/rehabilitate this span driven vertical lift bridge. The rehabilitation includes sheave replacement, wire rope replacement, span lock repairs and electrical system upgrades. **Project Manager** for the rehabilitation design services for vertical lift bridge.

f.

(1) TITLE AND LOCATION *(City and State)*
NW 63rd Street Bridge over East Channel of Indian Creek, Miami Dade, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 4/05 - 3/09
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The project consisted of concrete superstructure and substructure repair design to lengthen the bridge useful life. An in-depth inspection of the entire structure was performed by Hardesty & Hanover to evaluate the deterioration and feasible repair options, locate the necessary concrete repairs, and determine the quantity of repairs required. The superstructure repairs included concrete spall and epoxy injection crack repairs of the AASHTO type prestressed concrete beams and splicing of deteriorated pre- stressing strands. **Project Manager** responsible for the planning and design of control house repairs, including concrete support structure and new windows. Concrete support structure was designed to provide redundancy to the vibrating cantilever control house.

g.

(1) TITLE AND LOCATION *(City and State)*
CR 3/ Mathers Bridge over Banana River, Indian Harbor Beach, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2/05 - 3/06
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

H&H provided swing span replacement, approach span improvements and control house renovation plans to improve the roadway geometry, pedestrian access, bridge operation and aesthetic appearance. This $6 Million swing span replacement included structural, architectural, mechanical and electrical plans. **Project Manager** for the construction engineering services of a new 200 ft steel truss swing span and approach widening.

h.

(1) TITLE AND LOCATION *(City and State)*
Parker Bridge (US 1)SR5 over ICWW, Palm Beach County, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 8/07 - 8/10
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Project included in-depth inspection, condition report with load ratings and rehabilitation recommendations. The Project also includes preparation of structural, architectural, mechanical, and electrical plans to rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The estimated $5 million rehabilitation includes hydraulic machinery retrofit, electrical system improvements, control house modifications, bridge widening, roadway and embankment improvements. **Project Engineer** responsible for the plan development and load rating of the twin double-leaf bascule bridge.

i.

(1) TITLE AND LOCATION *(City and State)*
SR-814/Atlantic Blvd Bridge, Pompano Beach, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 12/07 - 12/09
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Construction Management @ Risk project to rehabilitate a Hopkins trunnion double leaf bascule span bridge. Project included hydraulic machinery retrofit; electrical system improvements, control house modifications and bascule span structural steel rehabilitation and bridge railing replacement. **Structural Engineer** responsible for the load rating of the twin double-leaf bascule bridge.

j.

(1) TITLE AND LOCATION *(City and State)*
SR-7/NW 5th Street Bascule Bridge over the Miami River, Miami, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 12/07 - 2/10
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Replacement design of $50 Million 180ft double leaf simple trunnion bascule span bridge using the appearance of a deck truss Chicago style Trunnion bascule span to fit in with the historic and aesthetic character of the Little Havana community of Miami. Project also includes control tower, approach roadways and Greenway River walk design. **Structural Engineer** responsible for the development of the USCG permit plans and planning and design of art décor styled, four story control tower on an independent pile foundation.

k.

(1) TITLE AND LOCATION *(City and State)*
Sanibel Island Causeway over San Carlos Bay, Sanibel Island, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2004
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Project included final design of the selected new bridge alternative. $30 Million new high level fixed bridge consists of 2,200ft long pre-stressed concrete 145ft Florida bulb-T span superstructure, and cast in-place reinforced concrete piers. **Structural Engineer** responsible for final plan and superstructure design reviews for 144ft pre-stressed concrete bulb tee girder spans for 70 ft high level fixed bridge.

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 Sileno, PE	QA/QC	21	18

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MSME / BEME	FL – Mechanical Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
ASME, American Society of Mechanical Engineers
ASCE, American Society of Civil Engineers
HMS, Heavy Movably Structures

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
NW 63rd Street Bridge over the East Channel of Indian Creek, Miami, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 8/05 - 3/06
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Project Manager responsible for mathematical balance of new twin double leaf bascule span, design of leaf erection shoring system and leaf tie-back system, and modification to maintenance of traffic plans.

b.

(1) TITLE AND LOCATION *(City and State)*
Broward County Bridges over New River, Ft. Lauderdale, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 1/00 - 4/02
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Project Manager in charge of in-depth inspection report, rehabilitative design recommendations and design plans for modifications to the operating machinery for two double leaf rolling lift span bridges. In addition, provided construction inspection services.

c.

(1) TITLE AND LOCATION *(City and State)*
SR-7 NW 5th Street Bascule Bridge Replacement over the Miami River, Miami, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 6/04 - 6/10
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Design of $50Million new double leaf bascule bridge using the appearance of a deck truss Chicago style trunnion bascule span to fit in with the historic and aesthetic character of the Little Havana community of Miami. Project also includes control tower, approach roadways and Greenway River walk design. **Project Manager** responsible for this multi-disciplined project that includes design of a new double leaf bascule bridge, control tower, approach roadways and a Riverwalk. Responsibilities also include post design services

d.

(1) TITLE AND LOCATION *(City and State)*
CR 3/ Mathers Bridge over the Banana River, Indian Harbour Beach, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 5/01 - 3/06
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Mechanical Project Engineer responsible for design of operating and stabilizing machinery systems for new swing span design. **Project Mechanical Engineer** during post design responsible for responses to RFI's, checking of shop drawings and construction coordination.

e.

(1) TITLE AND LOCATION *(City and State)*
Atlantic Blvd Bridge, Pompano Beach, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 8/07 - 7/10
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Construction Management @ Risk project to rehabilitate a Hopkins trunnion double leaf bascule span bridge. Project included hydraulic machinery retrofit; electrical system improvements, control house modifications and bascule span structural steel rehabilitation and bridge railing replacement. **Project Manager** responsible for this multi-disciplined project that includes a rehabilitation of a double leaf bascule bridge.

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
John Low, PE	Task Leader	31	7

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BSc Hons.,	FL – Civil Engineer

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Miami Ave over Miami River, Miami, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 11/08 – 6/12
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

$6 million rehabilitation of twin double leaf bascule span constructed in 1985. Project required replacement of bascule span deck grating and span locks and cleaning and painting of steel superstructure. Hydraulic system was also refurbished. **Project Manager** responsible for the detail design, preparation of contract documents, permit acquisitions and post-construction services.

b.

(1) TITLE AND LOCATION *(City and State)*
Rehabilitation of 17th Ave Bridge over Miami River, Miami, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 10/07 - 3/08
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

$9 million rehabilitation of a simple trunnion double leaf bascule span constructed in 1924. Project required new bascule span floorsystem, and bridge railing to meet LRFD requirements. Project also included removal of open gearing operating system and replace with hydraulic gear motor and new relay logic electrical control system. **Project Manager** responsible for the detail inspection, detail design, preparation of contract plans and post-design services.

c.

(1) TITLE AND LOCATION *(City and State)*
Districtwide Miscellaneous Structural Projects and Minor Design, Miami, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 11/05 - 4/06
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Professional Engineering Services for district wide miscellaneous structural projects minor design for District 6. **Project Engineer** responsible for LRFR Evaluation of the Boot key Bascule Bridge and Approach spans.

d.

(1) TITLE AND LOCATION *(City and State)*
Pine Tree Ave over Flamingo Waterway, Miami Dade, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 8/07 - 3/08
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Phase I: $1 million substructure repairs to prestressed concrete piles and reinforced concrete piers. Repairs required an active impressive current application of cathodic protection. CEI services also provided. **Project Manager** responsible for the detail design and preparation of the contract documents, permit acquisitions and CEI services.

e.

(1) TITLE AND LOCATION *(City and State)*
Pine Tree Ave over Flamingo Waterway, Miami Dade, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 6/09 - Present
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Phase II: $ 1 million superstructure repairs to replace the existing steel girder center span, miscellaneous concrete repairs to remaining superstructure and substructure not carried out in Phase I, replacing concrete railing system on bridge and approach retaining walls to meet LRFD requirements. **Project Manager** responsible for the detail design, preparation of the contract documents, permit acquisitions and CEI services.

f.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Miami Dade Sinusoidal Bridge Rehabilitation, Miami Dade, FL	PROFESSIONAL SERVICES 1/06 - 1/07	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

Fee contract for structural rehabilitation with cathodic protection and painting. A 180-ft-long, structural steel fixed bridge has a 32-ft-long main span and 23-ft-long concrete slab approach spans supported on concrete pile bents. Included bridge condition report with cost estimate, plans and specifications, permit acquisition, and shop drawing review. **Project Manager** responsible for inspections, load ratings, detail designs and preparation of contract documents.

g.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Countywide Sonovoid Bridge Load Ratings, Miami-Dade, FL	PROFESSIONAL SERVICES 11/07 - 2/08	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

The project involved the LRFR load rating of 42 precast prestressed concrete slab bridges using the newly released AASHTOWare's VIRTIS version 5.6 software. **Project Manager** responsible for the LRFR load rating.

h.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Mathews Bridge (SR 115) over St. John's River, Jacksonville, FL	PROFESSIONAL SERVICES 4/06 - 8/07	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

$13 million deck replacement for the 810 foot suspended span on the main channel span cantilevered truss. Original open deck steel grating was replaced with reinforced concrete exodermic deck. Roadway stringers and railings were replaced, and truss and floorbeam strengthening was provided with new deck system meeting LRFR requirements. 3-D modeling of truss was accomplished to determine multiple load cases for load rating. Construction time to replace deck was 90 days. Additional repairs included floorbeams web repairs, bridge painting, utility relocation, and finger expansion joint replacement. Complex MOT was required to ensure commuter traffic was uninterrupted. **Project Engineer** responsible for review of contract drawings and specifications for the strengthening of truss members and repairs to steel floor beams and post-construction 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	
		a. TOTAL	b. WITH CURRENT FIRM
Alfred Banz, PE	QA/QC	12	20

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BSCE	FL – Civil Engineer

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

Value Engineering Team Leader Seminar (FDOT)
Work Zone Traffic Control Supervisor (ATSSA)
Traffic Control Plan Design (FDOT)
Certified Public Manager Level IV
Safety Inspection of In-Service Bridges (NHI)
Movable Bridge Inspector Training (NHI)
Engineering Concepts for Bridge Inspectors (NHI)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Rehabilitation of 17th Ave Bridge over Miami River, Miami, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2007
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

$9 million rehabilitation of a simple trunnion double leaf bascule span constructed in 1924. Project required new bascule span floor system, and bridge railing to meet LRFD requirements. Project also included removal of open gearing operating system and replace with hydraulic gear motor and new relay logic electrical control system. **Project Engineer** responsible for final bridge balance

b.

(1) TITLE AND LOCATION *(City and State)*
Town of Bay Harbor Facilities Inspection, Town of Bay Harbor Islands, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 6/12 – 3/13
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Contract for miscellaneous engineering services for one movable bridge and three fixed bridges. **Project Manager** responsible for coordinating and overseeing personnel to ensure completion of various task work orders ranging from inspection and design to construction engineering and inspection services. Provided recommendations for the town's capital improvement program necessary to maintain their transportation infrastructure.

c.

(1) TITLE AND LOCATION *(City and State)*
SR7/NW 5th Street Bridge Replacement over the Miami River, Miami, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 11/07 - 6/10
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Replacement design of $50 Million 180 ft double leaf simple trunnion bascule span bridge using the appearance of a deck truss Chicago style Trunnion bascule span to fit in with the historic and aesthetic character of the Little Havana community of Miami. Project also includes control tower, approach roadways and Greenway River walk design. **Project Engineer** responsible for shop drawing reviews, preparation of responses to contractors requests for information, and field inspection/visits.

d.

(1) TITLE AND LOCATION *(City and State)*
SR-814/Atlantic Blvd Bridge, Pompano Beach, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2/08 - 9/10
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

$5 Million Construction Management @ Risk project to rehabilitate a Hopkins trunnion double leaf bascule span bridge. Project included hydraulic machinery retrofit; electrical system improvements, control house modifications and bascule span structural steel rehabilitation and bridge railing replacement. **Project Engineer** responsible for shop drawing reviews, responding to RFI's, and field inspection/visits

e.

(1) TITLE AND LOCATION *(City and State)*
Parker Bridge (US 1) over ICWW, North Palm Beach, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 1/08 - 12/10
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Construction Management @ Risk project delivery. Project included in-depth inspection, condition report with load ratings and rehabilitation recommendations. The estimated $11million rehabilitation includes hydraulic machinery retrofit, electrical system improvements, control house modifications, bridge widening, roadway and embankment improvements. **Project Engineer** responsible for shop drawing reviews, responding to RFI's, and field inspection/visits.

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
Steve Hedge, EI	Structural Engineer	16	16

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BECE	

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Hillsborough Avenue Bascule over Hillsborough River, Tampa, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 3/12 – 12/12
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The project includes preparation of structural, mechanical, and electrical plans to repair/rehabilitate this simple trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery repairs, electrical system upgrades, addition of barrier housed span locks and increases to the stiffness of the structural system in order to reduce vibrations. **Structural Engineer** responsible for coordinating with the prime consultant for all submission, responding to ERC comments and ensuring all comments are incorporated in subsequent submittals.

b.

(1) TITLE AND LOCATION *(City and State)*
Hillsborough Avenue Vertical Lift over Hillsborough River, Tampa, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 3/12 – 3/13
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The project includes preparation of mechanical and electrical plans to repair/rehabilitate this span driven vertical lift bridge. The rehabilitation includes sheave replacement, wire rope replacement, span lock repairs and electrical system upgrades. **Structural Engineer** responsible for coordinating with the prime consultant for all submission, responding to ERC comments and ensuring all comments are incorporated in subsequent submittals.

c.

(1) TITLE AND LOCATION *(City and State)*
SR15 Over Taylor Creek, Okeechobee County, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 9/11 – 3/13
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The Project includes preparation of architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins trunnion single leaf bascule span bridge. The rehabilitation includes machinery retrofit, electrical system improvements and control house modification. **Project Engineer** responsible for the rehabilitation design services for this double leaf bascule bridge.

d.

(1) TITLE AND LOCATION *(City and State)*
Siesta Key Bridge over ICWW, Sarasota County, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 10/10 – 11/12
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The project includes preparation of structural, architectural, mechanical and electrical plans to repair/rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery retrofit, electrical systems improvement, control house modifications and deck replacement. **Project Engineer** responsible for the rehabilitation design services for this double leaf bascule bridge.

e.

(1) TITLE AND LOCATION *(City and State)*
Rehabilitation of 17th Ave Bridge over Miami River, Miami, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 8/07 - 6/08
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

$9 million rehabilitation of a simple trunnion double leaf bascule span constructed in 1924. Project required new bascule span floor system, and bridge railing to meet LRFD requirements. Project also included removal of open gearing operating system and replace with hydraulic gear motor and new relay logic electrical control system. **Structural Engineer** responsible for the design of the new traffic railing, deck replacement, and perform the mathematical span balance calculations.

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
Roberto Viciedo, PE	Task Leader	16	17

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BSCE	FL – Civil Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
FICE/FDOT LRFD Seminar FICE/FDOT Design Conference - 2002
FICE/FDOT Excellence & Quality in Project Management FBPE Professional Engineering Ethics Course - 2004

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Hillsborough Avenue Bascule over Hillsborough River, Tampa, FL	3/12 – 12/12	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

The project includes preparation of structural, mechanical, and electrical plans to repair/rehabilitate this simple trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery repairs, electrical system upgrades, addition of barrier housed span locks and increases to the stiffness of the structural system in order to reduce vibrations. **Structural Engineer** responsible for design and detailing of the new lock bar supporting brackets on the bascule leaves.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Miami Dade Sinusoidal Bridge Rehabilitation, Miami Beach, FL	11/04 - 7/05	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

Fee contract for structural rehabilitation with cathodic protection and painting. A 180-ft-long, structural steel fixed bridge has a 32-ft-long main span and 23-ft-long concrete slab approach spans supported on concrete pile bents. Included bridge condition report with cost estimate, plans and specifications, permit acquisition, and shop drawing review. **Project Manager** responsible for general project coordination including inspection, report of deficiencies and design and detailing of repairs.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Parker Bridge (US 1)SR5 over ICWW, Palm Beach County, FL	8/07 - 8/10	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

Construction management @ risk project delivery. Project included in-depth inspection, condition report with load ratings and rehabilitation recommendations. The Project also includes preparation of structural, architectural, mechanical, and electrical plans to rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The estimated $5 million rehabilitation includes hydraulic machinery retrofit, electrical system improvements, control house modifications, bridge widening, roadway and embankment improvements. **Project Engineer** responsible for general project coordination.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
SR-814/Atlantic Blvd Bridge, Pompano Beach, FL	8/07 - 9/10	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

Construction Management @ Risk project to rehabilitate a Hopkins trunnion double leaf bascule span bridge. Project included hydraulic machinery retrofit; electrical system improvements, control house modifications and bascule span structural steel rehabilitation and bridge railing replacement. **Project Engineer** responsible for general project coordination.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
SR 7/ NW 5th Street Bridge Replacement over the Miami River, Miami, FL	6/04 - 4/10	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

Replacement design of $50 Million 180 ft. double leaf simple trunnion bascule span bridge using the appearance of a deck truss Chicago style Trunnion bascule span to fit in with the historic and aesthetic character of the Little Havana community of Miami. Project also includes control tower, approach roadways and Greenway River walk design. **Project Engineer** for this multi-disciplined project that includes a new double leaf bascule bridge, control tower, approach roadways and a Riverwalk. **Task leader** responsible for design of movable leaf.

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
Brian Chunn, PE	Structural Engineer	17	>1

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MSCE/BSCE	FL – Civil Engineer

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Pellissippi Parkway over Norfolk Southern Railroad, Blount County, TN

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
1999	

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

[] Check if project performed with current firm

Mr. Chunn served as **Designer of Record** for this project which featured a skewed three-span continuous concrete superstructure with spans of 47-feet, 104-feet and 70-feet for an overall length of 221-feet. Mr. Chunn designed the prestressed beams and deck slab to be continuous over the piers for live load. The continuous concrete superstructure was designed according to the AASHTO Standard Specifications using the TDOT continuous bridge computer programs. The complex piers with pile foundations were designed by Mr. Chunn

b.

(1) TITLE AND LOCATION *(City and State)*
State Road 5/West Tennessee Railroad, Gibson County, TN

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
1998	

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

[] Check if project performed with current firm

Mr. Chunn served as **Designer of Record** for this project which featured a skewed three-span continuous concrete superstructure with spans of 55-feet, 59-feet and 55-feet for an overall length of 169-feet. Mr. Chunn designed the prestressed beams and deck slab to be continuous over the piers for live load. The continuous concrete superstructure designed according to the AASHTO Standard Specifications using the TDOT continuous bridge computer programs. The complex piers with pile foundations were designed by Mr. Chunn.

c.

(1) TITLE AND LOCATION *(City and State)*
Bible Chapel Road/Lick Creek, Green County, TN

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
1996	

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

[] Check if project performed with current firm

Mr. Chunn served as **Designer of Record** for this project which featured a curved skewed three-span continuous concrete superstructure with three spans of 61-feet for an overall length of 183-feet. Mr. Chunn designed the prestressed beams and deck slab to be continuous over the piers for live load. The continuous concrete superstructure designed according to the AASHTO Standard Specifications using the TDOT continuous bridge computer programs. The complex piers with pile foundations were also designed by Mr. Chunn

d.

(1) TITLE AND LOCATION *(City and State)*
I-595 Ramp E-2 Over Hiatus Road Value Engineering Redesign, Davie, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
8/2011 - 2013	

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

[] Check if project performed with current firm

Engineer of Record for I-595 Ramp E-2 Over Hiatus Road. The project was a redesign of existing 328'-2" long, 30'-1" wide, three span steel bridge to incorporate concrete 72" Florida I-Beams in order to save the Contractor money in a value engineering exercise.

e.

(1) TITLE AND LOCATION *(City and State)*
University of Miami Ambulatory Medical Center (AMC), Coral Gables, FL

(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

The project included the construction of a combination vehicular and pedestrian bridge over University Canal to connect the rear access area of the new AMC facility with the existing parking garage. In order to minimize the depth of the bridge superstructure and create a pleasing appearance, specially designed prestressed concrete flatslabs were chosen to be the main supporting elements for the skewed span of 80-feet. A concrete culvert extension was also included in this project to accommodate the widening of Ponce de Leon Avenue over University Canal. Additionally, Keith & Schnars prepared the structural construction documents for four mast arms for the signalization of the intersection of Ponce de Leon Boulevard and Dickenson Drive. Mr. Chunn was **Engineer of Record** for the bridge, box culvert extension and mast arms.

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
Cesar Granados, PE	Task Leader	17	15

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
Advance Work Zone Traffic Control Wind Load Structural Design

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Miami Ave over Miami River, Miami, FL	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
	2009	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

$6 million rehabilitation of twin double leaf bascule span constructed in 1985. Project required replacement of bascule span deck grating and span locks and cleaning and painting of steel superstructure. Hydraulic system was also refurbished. **Structural Engineer** responsible for bascule pier modification plans, bascule leaves modification and detailing plans.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Broward County Bridges over New River, Ft. Lauderdale, FL	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
	2001	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

Inspection and rehabilitation project. Includes minor structural repairs and painting of three movable bridges (3rd Ave, 7th Ave and Andrews Ave) and mechanical rehabilitation of drive machinery in two, double-leaf rolling lift span bridges. Strain gage testing and balance calculations provided on 3rd Avenue bridge. **Structural Engineer** responsible for maintenance of traffic, design, detail of repairs and preparation of cost estimates.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Districtwide Miscellaneous Structural Projects and Minor Design, Miami, FL	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
	5/05 - 11/08	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

Structural Engineer responsible for inspection, design of repairs, maintenance of traffic, general upgrades, roadway plans and shop drawing review.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Pine Tree Ave over Flamingo Waterway, Miami Dade, FL	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
	2006	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

Substructure repairs to prestressed concrete piles and reinforced concrete piers. Repairs required an active impressive current application of cathodic protection. CEI services also provided. **Project Engineer** responsible for detail design preparation of contract drawings and specifications.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
DW Bridge Repair Design/District IV, Broward County, FL	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
	6/98 - 11/03	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[x]** Check if project performed with current firm	

$1.5Million rehabilitation project included inspection access platforms, fender replacement, and structural steel cross frame repairs for this high level fixed steel girder bridge. **Structural Engineer** responsible for design, calculations and plans preparation.

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
Andrew Barthle, PE	Electrical Engineer	9	9

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BSEE	FL – Electrical Engineer

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
NW 63rd Street Bridge over East Channel of Indian Creek, Miami Dade, FL

(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

Substructure repairs to prestressed concrete piles. Repairs required an active impressive current application of cathodic protection. **Electrical Engineer** responsible for assisting in design, calculations, plan preparation of the cathodic protection system. Provided post design and construction support services.

b.

(1) TITLE AND LOCATION *(City and State)*
Hillsborough Avenue Bascule over Hillsborough River, Tampa, FL

(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

The project includes preparation of structural, mechanical, and electrical plans to repair/rehabilitate this simple trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery repairs, electrical system upgrades, addition of barrier housed span locks and increases to the stiffness of the structural system in order to reduce vibrations. **Project Electrical Engineer** responsible for design, calculations, plan preparation and post design of the bridge electrical systems.

c.

(1) TITLE AND LOCATION *(City and State)*
Hillsborough Avenue Vertical Lift over Hillsborough River, Tampa, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 3/12 – 2/13
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The project includes preparation of mechanical and electrical plans to repair/rehabilitate this span driven vertical lift bridge. The rehabilitation includes sheave replacement, wire rope replacement, span lock repairs and electrical system upgrades. **Project Electrical Engineer** responsible for design, calculations, plan preparation and post design of the bridge electrical systems

d.

(1) TITLE AND LOCATION *(City and State)*
SR15 Over Taylor Creek, Okeechobee County, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 12/11 – 3/12
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

The Project includes preparation of architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins trunnion single leaf bascule span bridge. The rehabilitation includes machinery retrofit, electrical system improvements and control house modification. **Project Electrical Engineer** responsible for responsible for design, calculations, plan preparation and post design of the bridge electrical systems

e.

(1) TITLE AND LOCATION *(City and State)*
Parker Bridge (US 1) SR5 over ICWW, Palm Beach County, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 1/08 - 8/10
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Construction management @ risk project delivery. Project included in-depth inspection, condition report with load ratings and rehabilitation recommendations. The Project also includes preparation of structural, architectural, mechanical, and electrical plans to rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The estimated $5 million rehabilitation includes hydraulic machinery retrofit, electrical system improvements, control house modifications, bridge widening, roadway and embankment improvements. **Electrical Engineer** responsible for design, calculations, plan preparation and post design of the bridge electrical systems.

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
Stephanie Romero, EI	Structural Engineer	7	7

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BSCE	

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Hillsborough Avenue Bascule over Hillsborough River, Tampa, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	

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

[x] Check if project performed with current firm

The project includes preparation of structural, mechanical, and electrical plans to repair/rehabilitate this simple trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery repairs, electrical system upgrades, addition of barrier housed span locks and increases to the stiffness of the structural system in order to reduce vibrations. **Structural Engineer** responsible for the Approach span Type II beams and Load ratings using Virtis.

b.

(1) TITLE AND LOCATION *(City and State)*
Siesta Key Bridge over ICWW, Sarasota 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

The project includes preparation of structural, architectural, mechanical, and electrical plans to repair/rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The rehabilitation includes hydraulic machinery retrofit, electrical system improvements, control house modifications and deck replacement. **Structural Engineer** responsible for the rehabilitation design services for this double-leaf bascule bridge.

c.

(1) TITLE AND LOCATION *(City and State)*
17th Avenue Bridge over Miami River, Miami, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	

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

[x] Check if project performed with current firm

Rehabilitation of a simple trunnion double leaf bascule span constructed in 1924. Project required new bascule span floorsystem, and bridge railing to meet LRFD requirements. Project also included removal of open gearing operating system and replace with hydraulic gear motor and new relay logic electrical control system. **Structural Engineer** responsible for shop drawings.

d.

(1) TITLE AND LOCATION *(City and State)*
Parker Bridge (US 1) over ICWW, North Palm Beach, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
9/07 - 1/10	

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

[x] Check if project performed with current firm

Project included in-depth inspection, condition report with load ratings and rehabilitation recommendations. The Project also includes preparation of structural, architectural, mechanical, and electrical plans to rehabilitate this Hopkins trunnion twin double leaf bascule span bridge. The estimated $5 million rehabilitation includes hydraulic machinery retrofit, electrical system improvements, control house modifications, bridge widening, roadway and embankment improvements. **Structural Engineer** responsible for hand calculations using LRFR.

e.

(1) TITLE AND LOCATION *(City and State)*
Overseas Highway US1 over Channel 2, Craig Key, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	

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

[x] Check if project performed with current firm

For US 1 over Channel 2, the project scope consisted of repairs to prestressed AASHTO beams and reinforced concrete deck. Impressed current cathodic protection was also installed on the 6'-0" diameter drilled shaft columns. **Structural Engineer** responsible for maintenance of traffic plans.

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
Vince Krepps	Senior Utility Coordinator	43	2

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BSEE	

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Districtwide Utility Coordination Services, Broward County, FL - FDOT District 4

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2010-2012
CONSTRUCTION *(If Applicable)*:

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

[x] Check if project performed with current firm

Contract consists of providing Utility Coordination services on in-house FDOT design projects throughout District 4, including identifying existing/proposed utilities and establishing initial contacts with UAO's; scheduling/conducting utility design meetings; transmitting utility work schedules, agreements, and marked plans between UAO's and the District; offering utility expertise upon request; providing utility certification to the District Utility Engineer; determining eligibility for compensable interests and assisting the District Utility Office with related information; identifying/resolving conflicts between UAO's facilities and proposed construction; and analyzing/certifying utility relocation schedules for compatibility with FDOT construction schedules. **Senior Utility Coordinator** for this task-work-order driven contract.

b.

(1) TITLE AND LOCATION *(City and State)*
SR 838/Sunrise Blvd Bridge Replacement Over the Middle River, Broward County, FL - FDOT District 4

(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

This Sunrise Blvd Bridge Replacement Project consists of all work associated with the process of utility coordination and certification for this bridge replacement for FDOT District 4 in Broward County, FL. The Sunrise Blvd Bridge Replacement Project's scope of work consisted of fostering an inclusive working environment among all Project Team Members/Stakeholders, including FDOT Staff (i.e. Highway, Structures, Right-of-Way, Maintenance, etc.), Utility Agency Owners (UAO's), local municipalities (City of Fort Lauderdale, Broward County, etc.) and residents. In addition, the project scope consisted of securing pertinent documents from FDOT, UAO's and Municipalities in order to certify all subsurface/overhead utilities as well as initiating/coordinating/executing/facilitating Joint Partnership Agreements on behalf of Project Stakeholders (II), in effect delivering a superlative product within the parameters as defined by the Department (schedule, budget, District Practices and Guidelines, etc.).

c.

(1) TITLE AND LOCATION *(City and State)*
Advanced Traffic Management System (ATMS) Request for Proposal (RFP) Package, Broward County, FL - FDOT District 4

(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

This RFP Package consists of more than 33 miles of highway corridors in Central Broward County proposed to undergo Advanced Traffic Management System (ATMS) improvements (II). The ATMS will utilize traffic monitoring cameras, dynamic message signs, passenger advisory signs and data collection devices to provide/monitor traffic information. H&H's (Prime Consultant) responsibilities included identifying the thirty-two (32) UAO's present along the corridors, attaining underground/overhead utility locates, permits, and proof of easements, initiating design meetings and providing guidance to design-build firms. Due to the breadth complexity of the project, H&H fostered an inclusive, continuously communicating working relationship among all Stakeholders.

d.

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

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

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

[] Check if project performed with current firm

e.

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

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

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

[] Check if project performed with current firm

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
Leonard Chiocca	Senior Utility Coordinator	34	3

15. FIRM NAME AND LOCATION *(City and State)*
Hardesty & Hanover, LLC – Sunrise, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
A.A. Electronics	

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Districtwide Utility Coordination and Contract Production Support - FDOT District 4

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
4/11 - Ongoing	

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

[x] Check if project performed with current firm

Senior Utility Coordinator responsible for overseeing the utility coordination efforts on FDOT in-house design projects. Task work orders involve identification of existing/proposed utilities, determination of eligibility of compensable interests, resolution of conflicts between utilities and proposed construction, securing executed legal agreements to clear projects for letting, and analyzing and certifying utility relocation schedules for compatibility to FDOT construction schedules.

b.

(1) TITLE AND LOCATION *(City and State)*
Districtwide Utility Coordination Services, Broward County, FL - FDOT District 4

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2010-2012	

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

[x] Check if project performed with current firm

Contract consists of providing Utility Coordination services on in-house FDOT design projects throughout District 4, including identifying existing/proposed utilities and establishing initial contacts with UAO's; scheduling/conducting utility design meetings; transmitting utility work schedules, agreements, and marked plans between UAO's and the District; offering utility expertise upon request; providing utility certification to the District Utility Engineer; determining eligibility for compensable interests and assisting the District Utility Office with related information; identifying/resolving conflicts between UAO's facilities and proposed construction; and analyzing/certifying utility relocation schedules for compatibility with FDOT construction schedules. **Senior Utility Coordinator** for this task-work-order driven contract.

c.

(1) TITLE AND LOCATION *(City and State)*
SR-A1A/Ocean Drive Shoreline Stabilization, St. Lucie County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
4/11 – Ongoing	

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

[x] Check if project performed with current firm

This environmentally sensitive project proposes to install permanent erosion control measures (sheet pile walls, geosynthetic mats, riprap, etc.) along the limits of the SR-A1A corridor to prevent damage from storm surge and potential washover during hurricanes and other severe weather events. Mr. Chiocca is the **Senior Utility Coordinator**, as there are numerous major utility owners within a narrow right-of-way envelope.

d.

(1) TITLE AND LOCATION *(City and State)*
SR-809/Military Trail from Lake Worth Rd. (SR-802) to S. of Southern Blvd (SR-80) (4.0 miles), Greenacres/Palm Springs, Palm Beach County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
10/11 – Ongoing	

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

[x] Check if project performed with current firm

Senior Utility Coordinator for this project which involves milling and resurfacing a four-mile section of this highly trafficked urban corridor, as well as signalization improvements at seven intersections, upgrades to signing and pavement markings, transit improvements, ADA upgrades, and provisions for uninterrupted bicycle lanes. Other project-specific issues include mitigating for hazardous vertical drop-offs at canal culvert end walls, reconstruction of curb ramps at side street connections to eliminate ponding areas, addressing drainage pipe and inlet settling, and providing additional lighting to improve safety at signalized intersections.

e.

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

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*

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

[x] Check if project performed with current firm

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
Lazaro Fleitas, PSM	Senior Surveyor & Mapper	26	7

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

Marlin Engineering, Inc., Doral, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
	Florida Professional Surveyor and Mapper Lic. No. 6518

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Survey Services for West Lakes BCDE , Town of Miami Lakes, FL

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

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

☑ Check if project performed with current firm

Mr. Fleitas was the Senior Surveyor & Mapper for this project. The scope of work included the following: Establishing control points, establishing elevations, providing drainage as-builts, full Topography Survey/ Digital Terrain Model (DTM). Also establishing job and instate plane coordinates. The project consisted of drainage improvements, milling and resurfacing of roadway, and the replacement of existing signing and pavement markings.

b.

(1) TITLE AND LOCATION *(City and State)*: TMB Peninsula Aviation Leasehold Survey – Kendall-Tamiami Executive Airport, Miami, FL

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

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

☑ Check if project performed with current firm

Mr. Fleitas is the Senior Surveyor & Mapper for this project. Mr. Fleitas is responsible for NGS points recovery, section corners recovery, state plane coordinate in NAD 83/07, establish vertical and horizontal control points, topography survey, establish leasehold boundary survey, and legal description.

c.

(1) TITLE AND LOCATION *(City and State)*: Greenways Biscayne Trail Segments C from North Canal Drive to Black Point Park along L-31E Canal, Miami, FL

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

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

☑ Check if project performed with current firm

Mr. Fleitas was the Senior Surveyor & Mapper for this project. Mr. Fleitas established vertical and horizontal controls as well as baseline survey, showed record right of way line, topography survey, check sections, and DTMS. The scope of services consisted of engineering services, which included the planning, design, permitting, and construction administration services, for the implementation of various greenway network and support amenities.

d.

(1) TITLE AND LOCATION *(City and State)*: AD Barnes Park Improvement, Miami, FL

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

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

☑ Check if project performed with current firm

Mr. Fleitas was the Senior Surveyor & Mapper for this project. Mr. Fleitas was responsible for boundary survey, topography survey, and tree survey. The scope of services consisted of engineering services, which included the planning, design, permitting, and construction administration services, for the implementation of various greenway network and support amenities at trailheads for the North Miami Dade areas.

e.

(1) TITLE AND LOCATION *(City and State)*: Park Trail Improvements PSA, Miami, FL

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

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

☑ Check if project performed with current firm

Mr. Fleitas was the Senior Surveyor & Mapper for this project. This project entailed Baseline of Survey, Right of way Lines, Topography Survey, Bench Marks, Network Control, and Cross sections. The scope of services consisted of engineering services, which included the planning, design, permitting, and construction administration services, for the implementation of various greenway network and support amenities at trailheads for the North Miami Dade areas.

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
Omar Carcamo	Survey Technician	19	10

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

Marlin Engineering, Inc., Doral, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelors in Science for Construction Management	

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

Intermediate Maintenance of Traffic

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Survey Services for West Lakes BCDE, Town of Miami Lakes, FL

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

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

☑ Check if project performed with current firm

Mr. Carcamo was the Survey Technician for this project. The scope of work included the following: Establishing control points, establishing elevations, providing drainage as-builts, full Topography Survey/ Digital Terrain Model (DTM). Also establishing job and instate plane coordinates. The project consisted of drainage improvements, milling and resurfacing of roadway, and the replacement of existing signing and pavement markings.

b.

(1) TITLE AND LOCATION *(City and State)*: TMB Peninsula Aviation Leasehold Survey – Kendall-Tamiami Executive Airport, Miami, FL

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

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

☑ Check if project performed with current firm

Mr. Carcamo is the Survey Technician for this project. Mr. Carcamo is responsible for NGS points recovery, section corners recovery, state plane coordinate in NAD 83/07, establish vertical and horizontal control points, topography survey, establish leasehold boundary survey, and legal description.

c.

(1) TITLE AND LOCATION *(City and State)*: Greenways Biscayne Trail Segments C from North Canal Drive to Black Point Park along L-31E Canal, Miami, FL

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

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

☑ Check if project performed with current firm

Mr. Carcamo was the Survey Technician for this project. Mr. Carcamo established vertical and horizontal controls as well as baseline survey, showed record right of way line, topography survey, check sections, and DTM. The scope of services consisted of engineering services, which included the planning, design, permitting, and construction administration services, for the implementation of various greenway network and support amenities.

d.

(1) TITLE AND LOCATION *(City and State)*: AD Barnes Park Improvement, Miami, FL

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

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

☑ Check if project performed with current firm

Mr. Carcamo was the Survey Technician for this project. The scope of work included boundary survey, topography survey, and tree survey. The scope of services consisted of engineering services, which included the planning, design, permitting, and construction administration services, for the implementation of various greenway network and support amenities at trailheads for the North Miami Dade areas.

e.

(1) TITLE AND LOCATION *(City and State)*: Park Trail Improvements PSA, Miami, FL

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

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

☑ Check if project performed with current firm

Mr. Carcamo was the Survey Technician for this project. This project entailed Baseline of Survey, Right of way Lines, Topography Survey, Bench Marks, Network Control, and Cross sections. The scope of services consisted of engineering services, which included the planning, design, permitting, and construction administration services, for the implementation of various greenway network and support amenities at trailheads for the North Miami Dade areas.

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
Alexis Rego, CBI	Senior Certified Bridge Inspector	13	13

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

Marlin Engineering, Inc., Doral, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor of Business Administration	Certified Bridge Inspector # 409, Florida

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

OSHA Fall Protection, CPR Certified, Construction Safety Course, PADI Rescue Diver, FHWA Underwater Bridge Inspection Training, MOT Advanced

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Districtwide Local Government In-Depth Bridge Inspection - CardSound Road, Key West, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2010 — CONSTRUCTION *(If applicable)*:

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

☑ Check if project performed with current firm

Mr. Rego was the inspector on this assignment which entailed underwater & topside inspection of all the bridge elements, fracture critical elements, and scour analysis.This was a routine biennial topside & underwater inspection of a 2800 ft long bridge with 37 approach spans composed of pre-stressed concrete girders and 3 main spans of fracture critical steel girders with floor beams and stringer systems over the intercoastal waterways in the Florida Keys.

b.

(1) TITLE AND LOCATION *(City and State)*: Districtwide Local Government In-Depth Bridge Inspection - Rickenbacker Causeway, Miami, FL

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

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

☑ Check if project performed with current firm

Mr. Rego was the inspector on this assignment which entailed underwater & topside inspection of all the bridge elements and scour analysis. This was a routine biennial topside & underwater inspection of a 3600 ft long bridge with 35 spans of pre-stressed concrete girders over the intercoastal waterways in Biscayne Bay, Miami, Florida. This is a highway pedestrian bridge built in 1985 with a navigation clearance of 70 ft on the main channel.

c.

(1) TITLE AND LOCATION *(City and State)*: Florida Keys Asset Management Contract- Long Key Bridge,Key West, FL

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

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

☑ Check if project performed with current firm

Mr. Rego was the inspector on this assignment which entailed underwater & topside inspection of all the bridge elements, including tendons on the segmental bridges, fracture critical elements, and scour analysis. This was a routine biennial topside & underwater inspection of a 12,000 ft long segmental box girder bridge with 103 spans of composed pre-stressed & post tensioning continuous box girders. This is a highway bridge on US1 in the Florida Keys.

d.

(1) TITLE AND LOCATION *(City and State)*: Florida Keys Asset Management Contract- 7 mile Bridge, Key West, FL

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

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

☑ Check if project performed with current firm

Mr. Rego was the inspector on this assignment which entailed underwater & topside inspection of all the bridge elements, including tendons on the segmental bridges, fracture critical elements, and scour analysis. This was a routine biennial topside & underwater inspection of a 35,870 ft long segmental box girder bridge with 266 spans of composed pre-stressed & post tensioning continuous box girders with a navigation clearance of 65 feet.

e.

(1) TITLE AND LOCATION *(City and State)*: Florida Keys Asset Management Contract-Channel 5 Bridge,Key West, FL

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

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

☑ Check if project performed with current firm

Mr. Rego was the inspector on this assignment which entailed underwater & topside inspection of all the bridge elements, including tendons on the segmental bridges, fracture critical elements, and scour analysis. This was a routine biennial topside & underwater inspection of a 5,000 ft long segmental box girder bridge with 37 spans of composed pre-stressed & post tensioning continuous box girders with a navigation clearance of 65.3 feet.

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	
Raj Krishnasamy, P.E.	**Principal Geotechnical Engineer**	a. TOTAL **25**	b. WITH CURRENT FIRM **13**

15. FIRM NAME AND LOCATION *(City and State)*
TIERRA SOUTH FLORIDA, INC., West Palm Beach, Florida

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS Civil Engineering, Christian Brothers University, 1987 MS Civil Engineering, University of Memphis, 1996	Professional Engineer, Florida No. 53567

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*
American Society of Highway Engineers, Past President, Florida Engineering Society, Past Treasurer
Geotechnical Material Engineering Council, Past Chairman

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
SFRC Bascule Bridge over the South Fork of the New River Broward County, Florida	PROFESSIONAL SERVICES 2013	CONSTRUCTION *(If applicable)*

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

Mr. Krishnasamy was the principal in charge of the geotechnical engineering study for the proposed replacement of about 1.25 miles of South Florida Rail Corridor Bascule Bridge over the New River in Broward County. The project extends from the overpass of Davie Boulevard to the overpass of SR84. Scope of services includes layout, coordination, performing borings on land and water, foundation analysis including piles and drilled shafts, and provided geotechnical recommendations. The proposed bridge structure is very close to the existing structure. Evaluated and analyzed several options including H-piles to brace existing foundation. A part of the proposed track traverses over organic soils. Evaluated various soil improvement options for the proposed track. Provided soil parameters for earth retention options to support the existing track during construction.

b.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
FDOT District 4 Unknown Foundations Bridge Scour Evaluation Broward County, Florida	PROFESSIONAL SERVICES 2011	CONSTRUCTION *(If applicable)*

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

Mr. Krishnasamy was the principal in charge of the geotechnical engineering services consisting of estimating pile foundation embedment for 20 bridge structures. Bridges included Andrews Avenue over C-13 Canal Bridge, NE 23 Avenue over Rio Giraldo Canal, NE 26th Terrace over Rio De Sota, Laguna Terrace over Diane River, West Lake Drive over Estelle River, West Lake Drive over Diane River, West Lake Drive over Lucille River, Johnson Street over C-10 Canal, and Kings Highway over Belcher Canal amongst others.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Spangler Road Bypass – Geotechnical Engineering Study Port Everglades, Florida	PROFESSIONAL SERVICES 2010	CONSTRUCTION *(If applicable)*

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

Mr. Krishnasamy was the principal in charge of the geotechnical engineering study for the construction of two bridges over Spangler Road, associated embankments/approach on either side of the bridges, security plaza, and roadway improvements on Eisenhower Boulevard. Field work included 14 Standard Penetration Test (SPT) borings. Provided geotechnical recommendations for bridge to support by a prestressed precast pile foundation system or an Auger Cast-in-Place (ACIP) pile foundation system. Provided design criteria, installation recommendations, and other considerations for both driven piles and ACIP piles so that the appropriate foundation system could be chosen depending on cost and feasibility. Also provided engineering recommendations for embankment/approach design options as well as geotechnical engineering recommendations for on-grade roadway widening.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Pembroke Road Bridge over I-75 Broward County, Florida	PROFESSIONAL SERVICES 2011	CONSTRUCTION *(If applicable)*

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

In 2005, Mr. Krishnasamy completed a Geotechnical Engineering Study, including Roadway Soil Survey, High Fill Embankment Report, and Bridge Foundation Report, for the widening and extension of Pembroke Road which included a new bridge over I-75. Field work consisting of SPT borings, auger borings, pavement cores, and BHP tests. Provided laboratory testing, slope stability analysis, pile capacity analysis, summary of subsurface conditions, and geotechnical discussion of bridge foundation alternatives (i.e. drilled shaft vs. pre-stressed pre-cast square concrete piles), soil suitability, and pavement design considerations. In 2009, provided support services for the CEI, i.e. asphalt plant inspection and laboratory services. In 2011, performed a Geotechnical Engineering Study to assist the design team in evaluating proposed MSE Walls.

	(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	CR-811/Dixie Highway Fly-Over Broward & Palm Beach Counties, Florida	PROFESSIONAL SERVICES 2012	CONSTRUCTION *(If applicable)*
e.	(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm Mr. Krishnasamy was the principal in charge of the geotechnical engineering study and provided quality control during construction for the new fly-over in Palm Beach & Broward Counties, Florida. Provided geotechnical report with analysis and recommendations for bridge foundation, MSE Wall and roadway soil survey. Also prepared TSP for Surcharge, Settlement Monitoring and Vibration Monitoring. Geotechnical recommendations also included a discussion of soil suitability, groundwater, and other site/construction considerations. During construction TSF provided sampling of soils and concrete for laboratory testing.		

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS PROJECT

(Complete one Section E for each Person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Mark S. Gosselin, Ph.D., P.E.	Coastal and Hydraulic Engineering	24	11

15. FIRM NAME AND LOCATION (*City and State*) INTERA Incorporated, Gainesville, FL (formerly known as Ocean Engineering Associates, Inc.)

16. EDUCATION (*DEGREE AND SPECIALIZATION*)	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
PhD, Coastal and Oceanographic Engineering MS, Naval Architecture and Offshore Structures BA, Engineering Sciences	Professional Engineer: Florida, Louisiana

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Rehabilitation of Bear Cut Bridge on Rickenbacker Causeway, Miami-Dade County, FL	2013-2014	Ongoing

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

INTERA Project Manager. Provided management oversight for the design/build project involving development of the design hydraulic and scour parameters at the bridge for a widening project. The hydraulic analysis included an application of ADCIRC to determine the 50-, 100-, and 500-year return period storm surge conditions at the bridge crossing. The project also involved application of the FDOT rock scour procedure to determine the local scour in the near-surface rock layer. Testing of the rock indicated that the scour resistant material would produce less scour, which resulted in lower design embedment depths for the widened portion substructure.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Development of Bridge Hydraulics Handbook, Florida Department of Transportation, FL. 2012	2012	N/A

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

Project Manager/Co-author. Developed the coastal engineering, coastal hydraulics and scour portions of the new publication for the FDOT. The Bridge Hydraulics Handbook is a reference for designers of FDOT projects and to provide guidelines for the hydraulic analysis and design of bridges, including scour. These guidelines were developed to help the hydraulics engineer meet the standards addressed in the FDOT Drainage Manual. The coastal engineering portions included development, calibration, and simulation of hurricane storm surge and wave climate during design events and design of coastal protection with regards to transportation infrastructure.

c.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Design Services for SR A1A Bascule Bridge #860011 over Hillsboro Inlet, Florida Department of Transportation District 4, Broward County, FL	2013	Planned

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

INTERA Project Manager and Lead Engineer. Provided design assistance for the development of scour protection for the bascule, rest pier, and approach pier substructure elements. Work included specification of the protection type (marine mattress), extents, design calculations, and anchoring system. Work also included review of plans and specifications developed by the prime design firm.

d.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Bridge Hydraulics Evaluations, Florida Department of Transportation District 4, Broward County, FL	2007	N/A

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

INTERA Project Manager. Managed the development of Bridge Hydraulics Reports for 10 bridges on and near the Intracoastal Waterway within Broward County. Reports include development of the design flows, storm surge, scour, and wave impact at each of the bridges.

e.

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Intracoastal Waterway Hydrodynamic Models, Florida Department of Transportation District 4, FL	2002 – 2003	N/A

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

Senior Reviewer. Provided quality control as well as some model development and calibration for the development of nine numerical models of the Intracoastal Waterway for simulating the design conditions at bridges associated with hurricane storm surges. Also developed flow boundary conditions and performed report write-ups.

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)
NW 17th Avenue Bridge over the Miami River - Miami, Florida	2008	2009

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Miami-Dade County	Marcos Redondo, PE	305.375.3848

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

Hardesty & Hanover provided rehabilitation design engineering services for this double leaf, simple trunnion type bascule span bridge constructed in 1928. The project was bid as a traditional design/bid/build project. However, after the start of construction it was realized that the Contract Plans for the project no longer were representative of the rapidly deteriorating bridge. H&H was hired by PCL Constructors Inc. with consent from Miami-Dade County to value engineer the rehabilitation project and provide the design for the extensive repairs that were not originally anticipated. The bridge was closed to vehicular traffic and a new work plan was developed.

H&H developed the construction plans and specifications to implement the $10 million rehabilitation to the bridge and provide post design engineering services during construction. Replacement of the stringers and floorbeams in lieu of repair was required due to the severity of the corrosion discovered. The rehabilitation included bascule span floor system replacement, grating replacement, bridge barrier replacement, pedestrian railing replacement, structural steel painting, lock bar replacement, strain gauge balance analysis, and span balancing services. Repairs were also accomplished on the bascule girders due to unknown deterioration to the girder webs behind connection plates. In addition, the open gearing operating machinery was replaced with a hydraulic gear motor directly driving the main rack pinion. The entire electrical control system to operate the new hydraulic motor was also provided for this fast-track project.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Sub-consultant
b.			
c.			
d.			
f.			

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)*

Miami Avenue Twin Bascule Bridges - Miami-Dade, Florida

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
2013	Ongoing

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Miami-Dade County	Marcos Redondo, PE	305.375.3848

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

The Miami Avenue Bridge, located in the heart of downtown Miami at the mouth of Miami River, was built in 1985 and consists of two parallel ten span bridges carrying three northbound and three southbound lanes over the Miami River. The twin structures have an overall length of 626 feet and the double leaf Hopkins trunnion type drawbridges span 196 feet. The bascule span has a two bascule plate girder system with a floor system consisting of stringers and floorbeams supporting an open grating. The mechanical lifting system consists of hydraulic cylinders with hydraulic power units.

H&H carried out a bridge inspection of the structural, mechanical, electrical and painting systems to identify what repairs were needed and to provide a bridge inspection report with repair/modification/replacement recommendations, cost estimates and prioritization of repairs.

H&H provided rehabilitation design engineering services which included replacement of the open steel grating, span lock system and lateral bracing hangers, painting the entire bascule span, strengthening/modifying the existing span lock support brackets and providing new span lock support brackets, miscellaneous repairs to the bascule girders, span hydraulic operating machinery and trunnions and modifying the existing electrical control system to accommodate the new span locks.

Construction is expected to commence in the spring of 2014 with completion in 2015 and H&H will provide post-design services.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Prime
b.			
c.			
d.			
f.			

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)*

Mathers Bridge over Banana River - Indian Harbor Beach, Florida

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
2006	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Brevard County	Bruce Auchter	321.617.7202

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

The original Mathers Swing Bridge was constructed in 1927. The bridge was a center pivot type Warren Pony Truss which spanned over the Banana River, connecting Merritt Island with the adjacent barrier island at Indian Harbor Beach. Prestressed Concrete approach spans replaced the original timber approach spans in 1977. The bridge carried a very narrow two lane roadway to a very secluded residential area of Merritt Island. The total length of the bridge is 792 feet.

The first phase of the project consisted of a Preliminary Engineering Report, to determine rehabilitation alternatives. The study investigated bascule span and swing span replacement options, raising the existing profile to minimize openings for navigable vessels and improving the existing cross section.

H&H performed an in-depth inspection of the structural, mechanical and electrical systems of the bridge to determine rehabilitation feasibility. The most viable solution provided replacement of the swing span in-kind with the exception of a wider roadway and the inclusion of a sidewalk to match the existing approach roadways. A box girder swing span was also a viable alternative; however the Pony truss matching the existing swing span met the aesthetic and historic needs of the site.

H&H provided swing span replacement and control house renovation plans to improve the roadway geometry, pedestrian access, bridge operation and appearance. The swing span replacement included structural, mechanical and electrical plans for the new wider swing span. The Control House was renovated to provide an "Old Florida" appearance.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Prime
b.			
c.			
d.			
f.			

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)
Districtwide Miscellaneous Structural Projects, Miami –Dade, FL	2010	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
FDOT – District 6	Dennis Fernandez	305.470.5182

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

63rd Street Bridge over Indian Creek Canal - Miami, FL - The 63rd Street Bridge over the Indian Creek Canal located in Miami Beach is a 10 span low level bridge consisting of prestressed concrete voided slab superstructure supported on prestressed concrete pile bents. The project consisted of concrete superstructure and substructure repair design to lengthen the bridge useful life. An in-depth inspection of the entire structure was performed by Hardesty & Hanover to evaluate the deterioration and feasible repair options, locate the necessary concrete repairs, and determine the quantity of repairs required. The superstructure repairs included concrete spall and epoxy injection crack repairs of the AASHTO type prestressed concrete beams and splicing of deteriorated pre- stressing strands. The substructure repairs included the installation of cathodic protection pile jackets due to the severely corroded condition of over 130 piles. Impressed current cathodic protection was evaluated as the best alternative to repairing the concrete piles in regard to durability and economics. The electrical design and utility coordination for the cathodic system was also performed, including providing the electric service. Superstructure repairs were also performed on the underside of the voided deck slabs. The slabs were repaired with concrete epoxy mortar and carbon fiber reinforcement.

Overseas Highway (US1) over Channel 2
Miami, FL - The State Road 5 Bridge over Channel Two is located at the south end of Lower Matecumbe key on State Road 5 in Monroe County, Florida. State Road 5 is a northeast southwest route through the Florida Keys. Hardesty & Hanover was contracted by FDOT District 6 to perform an inspection and provide a condition report, repair plans and provide Post Design Services. As a result of our inspection findings, the construction work included spall and crack repairs, joint repair and the installation of pile jackets with impressed current cathodic protection.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Prime
b.			
c.			
d.			
f.			

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)
Districtwide Miscellaneous P.E. Design Consultant. Miami, FL	2013	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
FDOT – District 6	Danny Iglesias	305.470.5289

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

SR 924/NW 119th St and NW 27th Ave Intersection Improvements, FDOT D6 Districtwide Miscellaneous, Miami-Dade County, FL- The improvements for this Work Order consist of milling, resurfacing, pavement widening, striping, signing, signalization upgrades and general safety improvements such as curb ramp reconstruction and pedestrian countdown pushbuttons installation (II). This intersection is the Lead Project of four (4) strung, intersection improvement projects located in Miami-Dade County along SR 924/NW 119th St. Contract commencement began October 2010 and planned for completion on June 2012 (IV).

SR 924/NW 119th St and NW 22nd Ave Intersection Improvements, FDOT D6 Districtwide Miscellaneous, Miami-Dade County, FL - Proposed improvements consist of milling, resurfacing, pavement widening, striping and signing. Operational improvements included provision for offset between left turn lanes and through lanes (II). This project is to be strung with SR 924/NW 119th St and NW 27th Ave. Contract commencement began October 2010 and planned for completion on June 2012 (IV). Contract commencement began October 2010 and planned for completion on June 2012 (IV).

SR 953/Lejeune Rd and SR 5/US 1 Intersection Improvements, FDOT D6 Districtwide Miscellaneous, Miami-Dade County, FL - The improvements for this Work Order consist of milling, resurfacing, pavement widening, striping, signing, signalization upgrades and general safety improvements such as curb ramp Reconstruction and pedestrian countdown pushbuttons installation (II). Also, scope of work included analysis of additional loading on existing mast arms, mast arm design, development of variations packages and construction cost estimates. Contract commencement began April 2011 and planned for completion on July 2012 (IV).

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Prime
b.			
c.			
d.			
f.			

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	
Parker Bridge (US 1) over the Intracoastal Waterway North Palm Beach, Florida	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if Applicable)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
FDOT - District 4	Fausto Gomez	954.777.4466

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

H&H contracted with FDOT to provide the first Construction Management @ Risk bridge project for the FDOT. The Parker Bridge is a twin, double-leaf, Hopkins trunnion type, bascule span bridge with steel rolled stringer approach spans located in North Palm Beach, Florida. The total length of the bridge is 650 feet. The bridge consists of a north-bound and south-bound structure constructed in 1964. H&H provided inspection, design and construction support services.

H&H developed construction plans and specifications to implement the recommended $11.0 million rehabilitation with assistance from the Construction Manager (PCL Civil Constructors) and in close coordination with FDOT District 4 Maintenance to provide efficient and constructible designs. H&H, PCL and FDOT worked as a team to streamline the design, procurement and construction process.

The second phase of the project developed the construction plans and specifications to implement the recommended $11-million rehabilitation. The rehabilitation included bridge widening to improve pedestrian access across the bridge for the neighboring communities. This consisted of providing sidewalks on each side of the bridge protected by a crash tested traffic railing at the curb. The existing railing was removed and replaced with a 3'-6" pedestrian railing. In addition to the widening of the roadway, a bascule span rehabilitation and control house renovation was accomplished. The bascule span rehabilitation included electrical system improvements including control desk relocation to the new upper level of the control house and new submarine cables. Mechanical improvements included replacement of the hydraulic actuation operating machinery with a hydraulic gear motor rotating the existing rack and new pinion on a new machinery frame. New lockbars were installed at roadway level in the roadway barrier to ease maintenance.

Structural member rehabilitation included replacement of the lateral bracing roadway grating, sidewalk brackets for the wider sidewalk, in addition to re-balancing the reconfigured bascule span. The rehabilitation also involved control house renovation. The renovation provided a new upper level to the control house to provide better view corridors for the wider bridge with improved pedestrian access.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Sub-consultant
b.			
c.			
d.			
f.			

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)
Districtwide Utility Coordination Services – Broward County, FL	2010	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
FDOT – District 4	May Sanchez	954.777.4128

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

SR 838/Sunrise Blvd Bridge Replacement Over the Middle River, FDOT D4 Utility Coordination, Broward County, FL

This Sunrise Blvd Bridge Replacement Project consists of all work associated with the process of utility coordination and certification for this bridge replacement for FDOT District 4 in Broward County, FL. The Sunrise Blvd Bridge Replacement Project's scope of work consisted of fostering an inclusive working environment among all Project Team Members/Stakeholders, including FDOT Staff (i.e. Highway, Structures, Right-of-Way, Maintenance, etc.), Utility Agency Owners (UAO's), local municipalities (City of Fort Lauderdale, Broward County, etc.) and residents. In addition, the project scope consisted of securing pertinent documents from FDOT, UAO's and Municipalities in order to certify all subsurface/overhead utilities as well as initiating/coordinating/executing/facilitating Joint Partnership Agreements on behalf of Project Stakeholders (II), in effect delivering a superlative product within the parameters as defined by the Department (schedule, budget, District Practices and Guidelines, etc.). H&H's comprehension of local, state and federal laws and ordinances exemplifies its efficacy in administering a Contract of this type. Contract commencement occurred on May 2010 and is scheduled for completion on November 2011 (IV).

Advanced Traffic Management System (ATMS) Request for Proposal (RFP) Package, FDOT D4 Utility Coordination, Broward County, FL

This RFP Package consists of more than 33 miles of highway corridors in Central Broward County proposed to undergo Advanced Traffic Management System (ATMS) improvements (II). The ATMS will utilize traffic monitoring cameras, dynamic message signs, passenger advisory signs and data collection devices to provide/monitor traffic information. H&H's (Prime Consultant) responsibilities included identifying the thirty-two (32) UAO's present along the corridors, attaining underground/overhead utility locates, permits, and proof of easements, initiating design meetings and providing guidance to design-build firms. Due to the breadth complexity of the project, H&H fostered an inclusive, continuously communicating working relationship among all Stakeholders. Contract commencement occurred on May 2010 and is scheduled for completion on November 2011 (IV).

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Prime
b.			
c.			
d.			
f.			

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	
Districtwide Bridge Engineering Design/CEI Support Services- FDOT District 1	PROFESSIONAL SERVICES Ongoing	CONSTRUCTION (if Applicable)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
FDOT – District 1	Bronoris Pye	813.975.7589

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

Hardesty & Hanover has rehabilitated three movable bridges as part of the on-call District 1 Miscellaneous Structural Projects and Minor Design.

Siesta Key Bridge Over the Gulf Intracoastal Waterway
H&H provided rehabilitation services to this Hopkins trunnion double leaf bascule bridge located in Sarasota County. The major rehabilitation scope items were the replacement of the bascule leaf open grating; replacement of the tender house windows; replacement of control system; mechanical repairs.

Taylor Creek Bridge
H&H provided rehabilitation services to this Hopkins trunnion single leaf bascule bridge located in Okeechobee County. The major rehabilitation scope items were the replacement of the tender house windows; replacement of control system; mechanical repairs.

Cortez Bridge Over the Gulf Intracoastal Waterway
H&H provided rehabilitation services to this Hopkins trunnion double leaf bascule bridge located in Manatee County. The major rehabilitation scope items were the replacement of the replacement of the tender house windows; replacement of control system; and mechanical repairs.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Prime
b.			
c.			
d.			
f.			

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)
Districtwide Bridge Engineering Design/CEI Support Services-On Call - FDOT District 7	Ongoing	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
FDOT – District 7	Gregory Deese, PE	813.975.7581

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

Hardesty & Hanover has rehabilitated three movable bridges as part of the on-call District 7 Miscellaneous Structural Projects and Minor Design.

West Bound Hillsborough Avenue Bridge over the Hillsborough River
Simple trunnion double leaf bascule bridge located in Tampa, Hillsborough County. The major rehabilitation scope items were the replacement of the undersized and difficult to access lock bars with new barrier mounted lock bars; stiffening of the flanking span transverse girder and bascule leaf floorbeam between the trunnion and counterweight girder; and PLC replacement.

East Bound Hillsborough Avenue Bridge over the Hillsborough River
Historically significant span driven vertical lift bridge located in Tampa, Hillsborough County. The major rehabilitation scope items were the replacement of broken uphaul sheaves; replacement of uphaul wire ropes; counterweight repairs; and counterweight sheave repairs.

Bayway Structure "E" over the Gulf Intracoastal Waterway
Hopkins trunnion double leaf bascule located in Pinellas county. The major rehabilitation scope items were a full electrical system upgrade; mechanical repairs; and the tender house window replacement.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Prime
b.			
c.			
d.			
f.			

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	
Atlantic Boulevard over the Intracoastal Waterway Pompano Beach, Florida	PROFESSIONAL SERVICES 2010	CONSTRUCTION (if Applicable)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
FDOT - District 4	John Danielsen	954.777.4202

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

H&H contracted with FDOT to provide the first Construction Management @ Risk bridge project for the FDOT. H&H provided an in-depth inspection of the structural, mechanical and electrical systems, as well as an inspection report for this Hopkins Trunnion double leaf bascule span built in 1952. The report included condition of the bridge, structural and mechanical load ratings and recommendations for a 15 year rehabilitation with cost estimate. PCL assisted during this phase to provide recommendations for the rehabilitation that were included in the final report recommendations.

H&H developed construction plans and specifications to implement the recommended $4.0 million rehabilitation with assistance from the Construction Manager (PCL Civil Constructors) and in close coordination with FDOT District 4 Maintenance to provide efficient and constructible designs. H&H, PCL and FDOT worked as a team to streamline the design and procurement process.

The rehabilitation included concrete repairs to the substructure; fender system repairs, traffic and pedestrian railing replacement and bascule span superstructure rehabilitation; electrical system control replacement and lightning protection. Mechanical improvements included hydraulic component refurbishment, trunnion bearing repairs, and span lock replacement. The span locks were relocated to the curb barriers to enhance maintenance access. The detail was accepted as an FDOT Standard design for future rehabilitation and new bascule design. Roadway improvements included relocation of the traffic barrier to the curb to protect the numerous pedestrians that utilize the bridge. Structural member repairs comprised of stringer and floorbeam bracket replacement and floorbeam repairs, in addition to re-balancing the span. The rehabilitation also included enlargement and architectural enhancement of the control house and asbestos abatement. H&H also provided construction support services.

The City of Pompano Beach was closely involved with this project to ensure the bridge was rehabilitated with pedestrian safety improvements and architectural improvements.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	Hardesty & Hanover	Sunrise, FL	Sub-consultant
b.			
c.			
d.			
f.			

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)*
Survey Services for West Lakes BCDE, Town of Miami Lakes, FL	2012	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Town of Miami Lakes	Gregory Netto	305.364.6100

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

The project consisted of drainage improvements including the replacement of existing catch basins, the addition of manholes, the addition of manholes, the addition of new pipe, the addition of French Drain, milling and resurfacing of roadway, and the replacement of existing signing and pavement markings.

The survey services performed consisted of: Reconnaissance Project Area, Recovery Control Stations, Recovery NGVD 29 Bench Marks, Recovery Block, properties and Center Line Corner, Establish State Plane Coordinates (NAD 83/90) by estatic GPS, Conventional Traverse along NW 151 Terrace and NW 83 Place, Level Run to establish Elevation to Control Points, Level Run to establish Elevation to Drainage Structures, Locate by Conventional Method Properties, Block and Center, Drainage Survey, and Topography Survey.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.			
b.			
c.			
d.			
e.			
f.			

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)*
Underwater Bridge Inspection		

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
FDOT District 6	Ulises Betancourt	305-470-5427

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

Marlin Engineering, Inc., as both a prime and a major sub, has provided expert underwater bridge inspection services to the Florida Department of Transportation District 6 for two major contracts.

The Districtwide Local Government In-Depth Bridge Inspection contract entails the structural underwater inspection of over 330 On and Off System Bridge structures, including 11 bascule bridges. Marlin performed contract coordination with local agencies and the District and Inspection Team Leader. Our depth and experience allows us to innovate and create cost savings while refining the current bridge inspection process. Because our inspectors are cross-trained, we only need a three-man crew to perform both topside and underwater inspections.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.			
b.			
c.			
d.			
e.			
f.			

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)*
Ocean Avenue Bridge **Palm Beach County, Florida**	On-going	

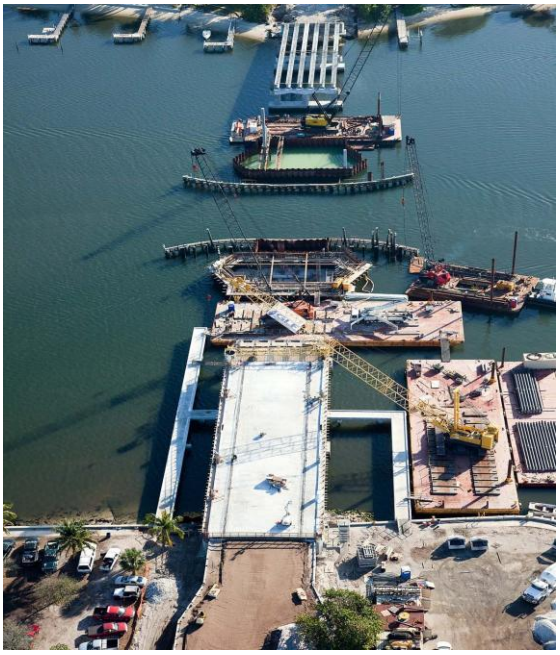
23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
URS	Mr. Luis Costa, P.E.	(561) 862-1117

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

Performed a preliminary geotechnical study to assist the design team in preparing a conceptual design and developing a preferred alternative for proposed improvements. Provided geotechnical report with analysis and recommendations for alternative bridge/tunnel design options, which included: replacement with a movable bridge, replacement with a fixed bridge, replacement with a tunnel, rehabilitation and repair of the existing bridge. Discussed tunnel design and construction requirements, i.e. Tunnel Boring Machine (TBM), open-pit construction at end ramps, and safety factors regarding uplift force due to buoyancy. Discussed utilizing either Pre-stressed Pre-Cast Square Concrete (PPSC) piles or drilled shafts and performed axial analyses.

Performed verification testing on soils for embankment, drainage, subgrade, and base. Performed testing on concrete for bridge widening including bents, decks, columns, and drilled shafts. Provided pile driving inspection for bridge, drilled shaft inspection for mast arms, and paving inspection.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Tierra South Florida, Inc.**	**West Palm Beach, FL**	**Geotechnical Engineering & Material Testing**
b.			
c.			
d.			

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)*
Bridge over FPL Canal Discharge at Port Everglades **Broward County, Florida**	2011	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Port Everglades	Mr. John Foglesong	(954)468-0142

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

Provided geotechnical engineering services for the construction of a bridge over the FPL Discharge Canal, associated embankments/approach on either side of the canal, and a roadway that leads south of the bridge to the South Port in Port Everglades, Florida. Field work included Standard Penetration Test (SPT) borings at the proposed bridge end bent locations, in the canal, and for the proposed embankment/approach, auger borings for the proposed roadway, and Borehole Permeability (BHP) tests along the project alignment. Also provided quality control during construction for the new bridge over the FPL Canal Discharge in Port Everglades, Florida. Observed the installation of pre-cast piles for the PDA testing, provided all concrete testing for the bridge construction. Monitored the stabilizing of organic soils (with the use of cement admixtures and mixing) under the proposed bridge approach (2 sides) and performed density testing on embankment, MSE walls, utility backfill, stabilized subgrade, base. Also observed asphalt placement during production, verified mix design for compliance, selected asphalt core locations for testing, monitored placement of prime and tack coats, as well as roller patterns, temperature and thickness during placement.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Tierra South Florida, Inc.**	**West Palm Beach, FL**	**Geotechnical Engineering and Quality Control Services**
b.			
c.			
d.			
e.			
f.			

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	
Flagler Memorial Bridge Replacement **Palm Beach County, Florida**	PROFESSIONAL SERVICES 2012	CONSTRUCTION *(If applicable)*

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Kimley-Horn & Associates, Inc.	Mr. Gary Ratay, P.E.	(954) 535-5100

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

The Flagler Memorial Bascule (moveable span) Bridge Replacement Design/Build Project consisted of complete replacement of the existing bridge with a new four-lane divided bridge. The new bridge includes two 12-foot wide travel lanes in each direction, an eight-foot wide shoulder on each side, and a 15.5-foot median. There will also be an eight-foot wide sidewalk on each side. The new bridge will be supported by drilled and poured concrete shafts. Other related improvements include new storm water drainage, new signage and pavement markings, and new traffic signals. The new bridge will also feature four pedestrian outlooks and a new tender house, decorative roadway lighting, and LED lighting beneath the bridge. Performed geotechnical study for the potential replacement of the existing Flagler Memorial Bridge over Intracoastal Water Way in Palm Beach County, Florida. The existing Bascule bridge was supported on precast concrete pile foundation system and the new bridge was to be located just south of the existing bridge. Seawall/bulkhead was to be required at both ends of the proposed new bridge. Field work included Standard Penetration Test (SPT) borings. The SPT borings were drilled using truck and barge mounted CME-45/B-57 drill rigs, and mud rotary procedures. Bridge borings were drilled generally to a depth 100 feet below existing grades/mudline. Provided geotechnical report which identified the general subsurface stratigraphy and provided geotechnical recommendations.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Tierra South Florida, Inc.**	**West Palm Beach, FL**	**Geotechnical Engineering**
b.			
c.			
d.			
e.			
f.			

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	
Spangler Road Bypass at Port Everglades **Broward County, Florida**	PROFESSIONAL SERVICES 2010	CONSTRUCTION *(If applicable)*

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Craven Thompson & Associates	Mr. Thomas McDonald	(954) 739-6400

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

Performed a geotechnical engineering study for the construction of two bridges over Spangler Road, associated embankments/approach on either side of the bridges, security plaza, and roadway improvements on Eisenhower Boulevard. Field work included 14 Standard Penetration Test (SPT) borings. Provided geotechnical recommendations for bridge to support by a prestressed precast pile foundation system or an Auger Cast-in-Place (ACIP) pile foundation system. Provided design criteria, installation recommendations, and other considerations for both driven piles and ACIP piles so that the appropriate foundation system could be chosen depending on cost and feasibility. Also provided engineering recommendations for embankment/approach design options as well as geotechnical engineering recommendations for on-grade roadway widening.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Tierra South Florida, Inc.**	**West Palm Beach, FL**	**Geotechnical Engineering**
b.			
c.			
d.			
e.			
f.			

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)*
Design-Build Rehabilitation of West Bridge and Bear Cut Bridge on Rickenbacker Causeway, Miami-Dade County, Florida	2013	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Hardesty & Hanover, LLC	Mr. Timothy Noles, P.E.	(954) 835-9119

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

Performed geotechnical engineering study for the bridge widening. The project included constructing French drains on the east and west sides of the bridge. Field work completed included 43 Standard Penetration Test (SPT) borings, 4 BoreHole Permeability (BHP) tests, and rock corings. Performed pile capacity analysis and prepared soil parameters and providing geotechnical engineering recommendations. Additionally performed studies to determine the length and pile capacity of the existing bridge (unknown foundation study).

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Tierra South Florida, Inc.**	**West Palm Beach, FL**	**Geotechnical Engineering**
b.			
c.			
d.			

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)*
SFRC Bascule Bridge over the South Fork of the New River **Broward County, Florida**	2013	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Jacobs Engineering	Ms. Nandita Kaundinya, P.E.	(954) 246-1234

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

Performed a geotechnical engineering study for the proposed replacement of about 1.25 miles of South Florida Rail Corridor Bascule Bridge over the New River in Broward County. The project extends from the overpass of Davie Boulevard to the overpass of SR84. Scope of services includes layout, coordination, performing borings on land and water, foundation analysis including piles and drilled shafts, and provided geotechnical recommendations. The proposed bridge structure is very close to the existing structure. Evaluated and analyzed several options including H-piles to brace existing foundation. A part of the proposed track traverses over organic soils. Evaluated various soil improvement options for the proposed track. Provided soil parameters for earth retention options to support the existing track during construction.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Tierra South Florida, Inc.**	**West Palm Beach, FL**	**Geotechnical Engineering**
b.			
c.			
d.			
e.			
f.			

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	
Hatton Highway Bridge Over PDD Main Canal 2 **Palm Beach County, Florida**	PROFESSIONAL SERVICES 2013	CONSTRUCTION *(If applicable)*

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
R.J. Behar and Company, Inc.	Mr. Sean O'Keefe, P.E.	(561) 333-7000

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

TSF performed a geotechnical engineering study for the bridge replacement over Canal 2, associated MSE walls, and roadway widening of Hatton Highway to the north and south of the new bridge. The purpose of this study was to provide Geotechnical (i.e. soils and groundwater) input to the design team to assist in evaluation of the merits of the proposed bridge replacement and MSE Walls. Performed a Geotechnical field study that included a total of four (4) Standard Penetration Test (SPT) borings drilled to a depth of 75 feet below the existing grade for the bridge replacement, and a total of six (6) SPT borings drilled to 40 feet deep for the proposed MSE walls. Also obtained soil sampled at the bottom of the canal for scour analysis. Laboratory testing consisted of testing to establish soil properties, including corrosion tests. Performed pile capacity analyses, prepared soil parameters for FV-pier analysis, and conducted global stability and settlement analysis for MSE walls. Provided geotechnical recommendations for bridge foundation as well as MSE walls.

Also provided Roadway Soil Survey Report for the Hatton Highway Bridge Approach Widening. The existing roadway (Hatton Highway) consists of a two-lane rural road facility with mostly grass shoulders. Field work for the roadway widening included 13 auger borings. Also performed limited laboratory testing to establish soil properties. Provided report detailing subsurface conditions/soil strata and groundwater conditions. Also provided geotechnical recommendations for site preparations, removal of organics, excavations, temporary side slopes, pavement design considerations, and on-site soil suitability.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Tierra South Florida, Inc.**	**West Palm Beach, FL**	**Geotechnical Engineering**
b.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
e.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
f.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE

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

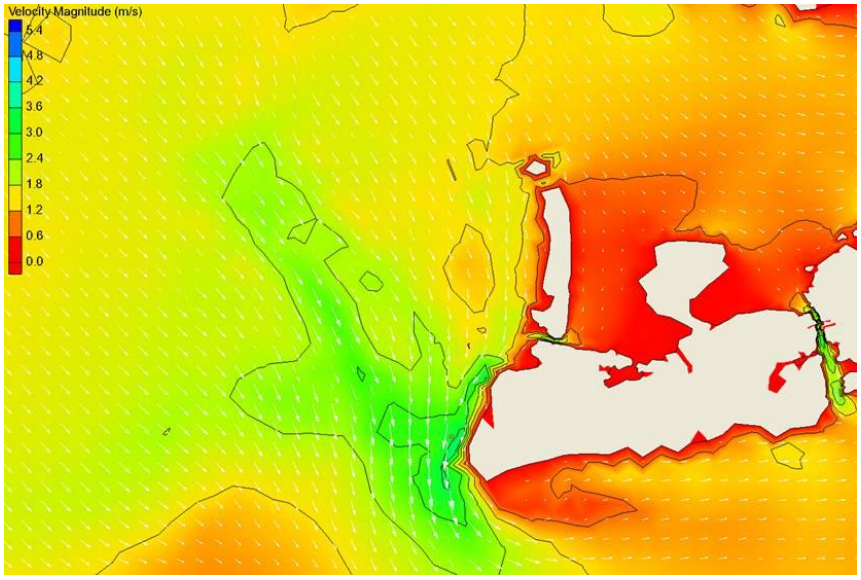
21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Hydrodynamic Modeling for the Key West Harbor and Navigation Channel Shoaling Analysis, FL.	2009	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT	c. POINT OF CONTACT TELEPHONE NUMBER
USACE, Jacksonville District, FL	Steven M. Bratos	(904) 232-1824

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

As a subcontractor for a Jacksonville District U.S. Corps of Engineers, INTERA simulated historical storm events to compute hydrodynamic conditions (circulation, currents, and water levels) in and near the federal navigation channel at Key West in support of the District's M2D, MDFATE, and LTFATE modeling of channel sedimentation rates. This project, building upon a Florida Department of Transportation study, involved 1) an extensive data/information search and compilation, 2) a field measurement program to provide calibration data for the modeling, 3) acquisition of meteorological data for as many as 40 storms that have impacted the area, 5) hindcasting of approximately 40 historical storms, and 6) statistical analyses of the data produced by the model runs. INTERA worked closely with the District to provide hydraulic conditions to perform sediment transport modeling and evaluate shoaling within the channel. USACE applied the results to develop a long term maintenance plan to budget for maintenance dredging of the Key West Harbor and channels that may result from storm generated shoaling and to identify disposal management sites and plans. INTERA provided USACE a final report documenting model setup, input data preparation, model calibration and verification, measured data and simulated boundary conditions. Cost: $95,000



Simulated storm-induced currents provided input for USACE MDFATE, LTFATE, and M2D modeling of sedimentation

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	INTERA Incorporated (formerly Ocean Engineering Associates, Inc.)	Gainesville, FL	Subcontractor
b.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
e.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
f.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE

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

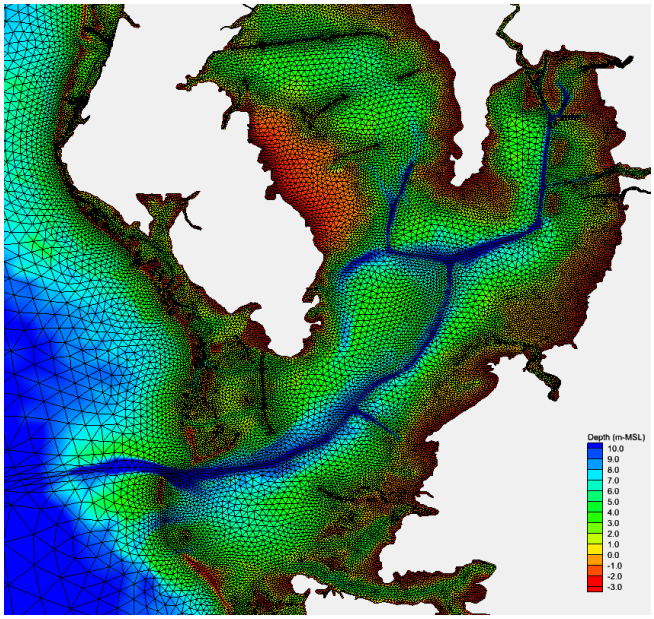
21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Florida Department of Transportation (FDOT) Infrastructure Vulnerability Pilot Study Phase I II and III, FL.	2009	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT	c. POINT OF CONTACT TELEPHONE NUMBER
Florida Department of Transportation	Rick Renna, PE	(850) 414-4351

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

Hurricane Ivan caused significant damage to the northwest coast of Florida. One of the most costly failures was the I-10 Bridges over Escambia Bay. The failure was attributed to the combination of storm surge and wave loading on the bridges' superstructures. Unfortunately, in many cases, waves have not been considered when establishing bridge elevations. As a result, a number of coastal bridges in Florida may be vulnerable to this type of loading. To access the vulnerability of Florida's coastal bridges, the Florida Department of Transportation (FDOT) contracted INTERA to perform a wave vulnerability pilot study. The purpose of the pilot study was to 1) develop and perform three levels of analysis for determining the sea state required for computing surge/wave loading on bridge superstructures and 2) compute the design surge/wave loading and determine the vulnerability of the bridges in the pilot study area. FDOT District 7, which is located in the Tampa-Saint Petersburg area on the west coast of Florida, was chosen as the site for the pilot study because of its large number of bridges over tidal bays and waterways.



INTERA's ADCIRC model simulates high resolution 2D tidal hydrodynamics and waves to better identify bridge vulnerability to damage from hurricanes.

Three levels of sea state analyses were investigated in the pilot study – Levels I, II and III. Both the required effort and the accuracy of the results increased with the level of analysis. A Level I analysis employs readily available data and empirical equations for computing sea state. A Level II analysis can cover a relatively wide range of analysis techniques from slight improvements over a Level I to complex computer modeling of waves and/or storm surge. A Level III analysis is more sophisticated, requires more effort, but produces greater accuracy and significantly more information.

Level I of this pilot study identified 34 of the 52 bridges in District 7 as needing further analysis. Level II, refining the sea state data via computer wave modeling and improved water surface (surge and wind setup) estimates, identified 32 of the 52 bridges as vulnerable (eliminated two bridges from the list of vulnerable bridges). Level III narrowed the list further to 8 vulnerable bridges of the 52 bridges evaluated. Level III applied a coupled application of the ADCIRC (circulation) and SWAN (wave) models that hindcasted the 30 most severe storms that have affected the study area over the last 154 years, and applied extreme value analysis to the results to develop the design sea state. Cost: $250,000.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	INTERA Incorporated (formerly Ocean Engineering Associates, Inc.)	Gainesville, FL	Prime
b.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
e.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
f.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE

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	11	12	13	14	15	16	17	18	
Timothy J Noles		x	x	x	x	x	x	x	x	x	x									
Henri Sinson				x	x		x		x	x										
Michael Sileno					x		x		x	x	x									
John Low		x	x		x															
Alfred Banz		x			x		x				x									
Roberto Viciedo							x		x	x	x									
Brian Chunn																				
Cesar Granados		x	x		x															
Andrew Barthle		x	x	x			x		x	x	x									
Steve Hedge		x					x		x	x	x									
Stephanie Romero		x			x		x			x										
Vincent Krepps						x		x												
Leonard Chiocca						x		x												

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	NW 17th Avenue Bridge over Miami River	11	
2	Miami Avenue Twin Bascule Bridges	12	
3	Mathers Bridge over Banana River	13	
4	DW Misc. Structural Projects, Miami-Dade County	14	
5	DW Misc. P.E. Design, Miami-Dade County	15	
6	Parker Bridge (US 1) over the Intracoastal Waterway, North Palm Beach	16	
7	Districtwide Utility Coordination Services, Broward County	17	
8	Districtwide Bridge Engineering Design/CEI Support Services- FDOT District 1	18	
9	Districtwide Bridge Engineering Design/CEI Support Services-On Call - FDOT District 7		
10	Atlantic Boulevard over the Intracoastal Waterway Pompano Beach		

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: RFQ # 246-11376

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: Hardesty & Hanover, LLC		3. YEAR ESTABLISHED: 1945	4. DUNS NUMBER: 05-455-2252
2b. STREET: 1000 Sawgrass Corporate Parkway, Suite 544		5. OWNERSHIP a. TYPE: Corporation	
2c. CITY: Sunrise	2d.STATE: FL / 2e. ZIP CODE: 33323	b. SMALL BUSINESS STATUS: No	
6a. POINT OF CONTACT NAME AND TITLE: Timothy J. Noles, PE / Principal		7. NAME OF FIRM (If block 2a is a branch office): Hardesty & Hanover, LLC	
6b. TELEPHONE NUMBER: 954.835.9119	6c. E-MAIL ADDRESS: tnoles@hardesty-hanover.com		
8a. FORMER FIRM NAME(S) *(If any)*: J.A.L. Waddell Waddell & Hardesty		8b. YR. ESTABLISHED: 1887 1927	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH
02	Administrative	34	2
06	Architect	2	0
15	Construction Inspectors	15	0
21	Electrical Engineers	19	2
42	Mechanical Engineers	20	3
47	Planners	2	0
55	Soils Engineers	0	0
27	Foundation/Geotechnical Engineer	4	0
32	Hydraulic Engineers	2	0
56	Specification Writers	3	0
57	Structural Engineers	118	11
08	CAD Operators	13	2
60	Transportation Engineers	0	0
	Highway Engineers	9	6
	Resident Engineers	7	0
	Estimators	0	0
	Other Employees	10	2
	Total	258	28

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Numb *(see below)*
B02	Bridges	9
C18	Cost Estimating; Cost Engineering and Analysis; Parametric Costing; Forecasting	5
E09	Environmental Impact Studies, Assessments or Statements	4
H01	Harbors; jetties; Piers; Ship Terminal Facilities	2
H08	Historical Preservation	2
H12	Hydraulics & Pneumatics	1
L06	Lighting (Exteriors; Street; Memorials; Athletic Fields)	2
T03	Traffic & Transportation Engineering	3
T06	Tunnels & Subways	4
U03	Utilities (Gas and Steam)	4
V01	Value Analysis; Life-Cycle Costing	2
	Construction Support	6
	Construction Inspection	8

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	0
b. Non-Federal Work	9
c. Total Work	9

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: Timothy J. Noles

b. DATE: 2/25/2014

c. NAME AND TITLE: Timothy J. Noles, PE - Principal

ARCHITECT ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*
RFQ # 246-11376

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME TIERRA SOUTH FLORIDA, INC.			3. YEAR ESTABLISHED 2003 / 4. DUNS NUMBER 829296222
2b. STREET 2765 Vista Parkway, Suite 10			5. OWNERSHIP a. TYPE Corporation
2c. CITY West Palm Beach	2d. STATE FL	2e. ZIP CODE 33411	b. SMALL BUSINESS STATUS Broward County CBE FDOT DBE and SBE Florida Statewide OSD MBE
6a. POINT OF CONTACT NAME AND TITLE Raj Krishnasamy, P.E. / Principal Engineer, President			7. NAME OF FIRM *(If block 2a is a branch office)* N/A
6b. TELEPHONE NUMBER (561)687-8539	6c. E-MAIL ADDRESS Raj@TierraSF.com		

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER
N/A	N/A	N/A

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
2	Administrative	6	6
8	CADD Technician	2	2
27	Foundation/Geotechnical Eng	5	5
58	Technician/Analyst	30	30
58	Technician/Inspector	6	6
	Total	49	49

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
S05	Soils and Geologic Studies; Foundations	5
T02	Testing and Inspection Services	6

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

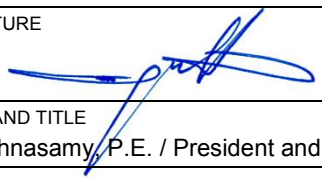
a. Federal Work	3
b. Non-Federal Work	5
c. Total Work	6

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000.
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
	February 25, 2014
c. NAME AND TITLE Raj Krishnasamy, P.E. / President and Principal Engineer	

ARCHITECT - ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: RFQ # 246-11376

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
INTERA Incorporated	1988	09-4833290

2b. STREET	5. OWNERSHIP
100 SW 75th Street, Suite 107	a. TYPE: Corporation

2c. CITY	2d. STATE	2e. ZIP CODE
Gainesville	FL	32607

6a. POINT OF CONTACT NAME AND TITLE	b. SMALL BUSINESS STATUS
Mark Gosselin, Ph.D., P.E., Director of Hydraulics and Coastal Modeling	

6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS	7. NAME OF FIRM *(If block 2a is a branch office)*
(352) 332-2323	mgosselin@intera.com	INTERA Incorporated

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER
INTERA Environmental Consultants	1974	
INTERA Technologies	1984	
INTERA Incorporated	1989	

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	13	1
08	CADD Technician	1	
23	Environmental Engineer	14	
24	Environmental Scientist	12	
29	Geographic Information System Specialist (GIS)	4	
30	Geologist	14	1
32	Hydraulic Engineer (Coastal)	9	7
34	Hydrologist	7	
49	Remote Sensing Specialist	1	
58	Technician/Analyst	2	
62	Water Resources Engineer	16	
	Hydrogeologist	25	
	Technical Editor	1	
	Toxicologist	2	
	QA Specialist	1	
	Total	122	9

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR PAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
E09	Env. Impact Studies, Audits, Assessments	7
E11	Environmental Planning	3
E12	Environmental Remediation	5
G04	GIS-Dev., Analysis, and Data Collection	3
R07	Remote Sensing	2
R10	Risk Analysis	4
W02	Water Resources, Hydrology, Groundwater	7

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	7
b. Non-federal Work	8
c. Total Work	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: Mark Gosselin

b. DATE: February 25, 2014

c. NAME AND TITLE: Mark Gosselin, Ph.D., P.E., Director of Hydraulics and Coastal Modeling

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: Timothy J. Noles 2/24/14
(signature) (date)

Name (printed) Timothy J Noles Title: Principal

Company: (Legal Registration) HARDESTY & HANOVER, LLC

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: N/A

City _____ State: _____ Zip _____

Telephone No. _____ FAX No. _____ Email: _____

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

Payment Terms (section 1.04): _____ Total Bid Discount (section 1.05): _____

Does your firm qualify for MBE or WBE status (section 1.09): MBE _____ WBE _____

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:

revised 11-29-11

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) ______________________ 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.
Business Name

(2) ______________________ 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.
Business Name

(3) HARDESTY & HANOVER 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.
Business Name

(4) ______________________ 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.
Business Name

(5) ______________________ 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.
Business Name

(6) ______________________ 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.
Business Name

BIDDER'S COMPANY: HARDESTY & HANOVER, LLC

AUTHORIZED COMPANY PERSON: Timothy J. Nolds [signature] 2-25-14
NAME SIGNATURE DATE

BROWARD COUNTY LOCAL BUSINESS TAX RECEIPT

115 S. Andrews Ave., Rm. A-100, Ft. Lauderdale, FL 33301-1895 – 954-831-4000

VALID OCTOBER 1, 2013 THROUGH SEPTEMBER 30, 2014

DBA:
Business Name: HARDESTY & HANOVER LLP

Receipt #: 315-641
Business Type: ENGINEER (ENGINEERING FIRM

Owner Name: TIMOTHY J NOLES
Business Location: 1000 SAWGRASS CORP PKWY 544
SUNRISE
Business Phone: 954-835-9119

Business Opened: 12/01/2005
State/County/Cert/Reg: 171
Exemption Code:

Rooms	Seats	Employees	Machines	Professionals
		20		

For Vending Business Only						
	Number of Machines:			Vending Type:		
Tax Amount	Transfer Fee	NSF Fee	Penalty	Prior Years	Collection Cost	Total Paid
45.00	0.00	0.00	0.00	0.00	0.00	45.00

THIS RECEIPT MUST BE POSTED CONSPICUOUSLY IN YOUR PLACE OF BUSINESS

THIS BECOMES A TAX RECEIPT

WHEN VALIDATED

This tax is levied for the privilege of doing business within Broward County and is non-regulatory in nature. You must meet all County and/or Municipality planning and zoning requirements. This Business Tax Receipt must be transferred when the business is sold, business name has changed or you have moved the business location. This receipt does not indicate that the business is legal or that it is in compliance with State or local laws and regulations.

Mailing Address:

TIMOTHY J NOLES
1000 SAWGRASS CORP PKWY #544
SUNRISE, FL 33323

Receipt #03A-12-00011545
Paid 08/27/2013 45.00

2013 - 2014

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
N/A	N/A

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.

Florida Statutes:
287.135

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

VENDOR CERTIFICATION REGARDING SCRUTINIZED COMPANIES LISTS

375-030-60
PROCUREMENT
OGC - 06/11

Respondent Vendor Name: Hardesty & Hanover, LLC

Vendor FEIN: 45-3031954

Vendor's Authorized Representative Name and Title: Timothy J. Noles

Address: 1000 Sawgrass Corporate Parkway, Suite 544

City: Sunrise State: FL Zip: 33323

Phone Number: 954.835.9119

Email Address: tnoles@hardesty-hanover.com

Section 287.135, Florida Statutes, prohibits agencies from contracting with companies for goods or services of $1,000,000 or more, that are on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. Both lists are created pursuant to section 215.473, Florida Statutes.

As the person authorized to sign on behalf of Respondent, I hereby certify that the company identified above in the section entitled "Respondent Vendor Name" is not listed on either the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List. I understand that pursuant to section 287.135, Florida Statutes, the submission of a false certification may subject company to civil penalties, attorney's fees, and/or costs.

Certified By: Timothy J. Noles

who is authorized to sign on behalf of the above referenced company.

Authorized Signature Print Name and Title: Timothy J. Noles