City of Fort Lauderdale

Bridge Engineering Consulting Services

RFQ # 246-11376
COPY

Table of Contents

February 24, 2014

Mr. James Hemphill, Procurement Specialist
Fort Lauderdale City Hall
100 N. Andrews Avenue, 6th Floor
Fort Lauderdale, Florida 33301

RE: RFQ # 246-11376
Bridge Engineering Consulting Services

Dear Mr. Hemphill,

TranSystems Corporation d/b/a TranSystems Corporation Consultants understands the City of Fort Lauderdale's need to hire a highly qualified consultant with proven experience of bridge engineering consulting services. We are prepared to commit senior staff with very relevant structures inspection, repair and rehabilitation, and replacement experience to perform the work outlined in the scope of services and provide you with experienced staff to perform work orders as an extension of the city's staff.

We have assembled a project team with the skills, experience, resources and dedication required to successfully complete this project. Our proposed personnel include sound, experienced specialists who have been inspecting and preparing repair and rehabilitation plans for bridges all across Florida and the nation. TranSystems has included Marlin Engineering, Inc., a certified minority business enterprise, on our team to perform all underwater inspection work.

Our proposed project manager, Steven A. Shaup, PE (sashaup@transystems.com) will be our primary point of contact in our Fort Lauderdale office:

TranSystems
2400 East Commercial Blvd.
Suite 1000
Fort Lauderdale, Florida 33308
Phone 954.653.8235
Fax 954.567.2511

We look forward to your favorable response. Upon review of our qualifications submittal, if you should find that there are any questions regarding the information provide or you require any clarification of any information, please contact me at 954.653.8235

Sincerely,
TranSystems

G. Alan Klevens, PE
Project Principal
Senior Vice President

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: _____ 2-24-14
(signature) (date)

Name (printed) G. Alan Klevens Title: Senior Vice President

Company: (Legal Registration) TranSystems Corporation d/b/a TranSystems Corporation Consultants

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: 2400 East Commercial Blvd., Suite 1000

City Fort Lauderdale State: FL Zip 33308

Telephone No. 954.654.4700 FAX No. 954.567.2511 Email: gaklevens@transystems.com

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

Payment Terms (section 1.04): 30 Days Total Bid Discount (section 1.05): N/A

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

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
2-5-14

3. SOLICITATION OR PROJECT NUMBER
246-11376

B. ARCHITECT – ENGINEER POINT OF CONTACT

4. NAME AND TITLE
Alan Klevens, Principal, Senior Vice President

5. NAME OF FIRM
TranSystems Corporation

6. TELEPHONE NUMBER
954.653.4700

7. FAX NUMBER
954.567.2511

8. E-MAIL ADDRESS
gaklevens@transystems.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			TranSystems Corporation **[X]** CHECK IF BRANCH OFFICE	2400 E. Commercial Boulevard Suite 1000 Fort Lauderdale, FL 33308	Structural Design/ Analysis, Electrical Design, Highway Design/ Signing/ Pavement Marking/ Signalization, Planning/ Public Involvement
b.	X			TranSystems Corporation **[X]** CHECK IF BRANCH OFFICE	101 Southhall Lane, Suite 355 Maitland, FL 32751	Highway Design/ Signing/ Pavement Marking/ Signalization, Planning/ Public Involvement
c.	X			TranSystems Corporation **[X]** CHECK IF BRANCH OFFICE	4500 Salisbury Road, Suite 440 Jacksonville, FL 32216	Architectural Design
d.	X			TranSystems Corporation **[X]** CHECK IF BRANCH OFFICE	Empire State Building 350 Fifth Avenue, Suite 924 New York, NY 10118	Electrical Design
e.			X	Marlin Engineering, Inc. CHECK IF BRANCH OFFICE CHECK IF BRANCH OFFICE	2191 NW 97th Avenue Doral, FL 33172	Underwater Inspections

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
Steven A. Shaup, PE	Project Manager	22	20

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Fort Lauderdale

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S.C.E., Structural Engineering, University of California, Irvine M.S.E., Structural Engineering, University of California, Irvine	FL / Professional Engineer (Civil)

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Districtwide Miscellaneous Bridge Design – Movable, FDOT District 2, FL	1999	2009
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X[** Check if project performed with current firm	

Project Manager for this DW contract. TranSystems' responsibilities included providing plans, specifications and related maintenance of traffic details for various paint projects, fender system replacements, structural steel repairs, bridge deck replacement, and joint repairs. In addition, TranSystems completed miscellaneous engineering services for movable bridges, including plans, and specifications for structural steel repairs, steel grating replacement, span lock replacement, buffer cylinder replacement and traffic signal replacement.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Bridge of Lions Historic Bascule Bridge Rehabilitation, FDOT District 2, St. Augustine, FL	2000	2010
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X[** Check if project performed with current firm	

Project Manager for this DW contract. TranSystems' responsibilities included providing plans, specifications and related maintenance of traffic details for various paint projects, fender system replacements, structural steel repairs, bridge deck replacement, and joint repairs. In addition, TranSystems completed miscellaneous engineering services for movable bridges, including plans, and specifications for structural steel repairs, steel grating replacement, span lock replacement, buffer cylinder replacement and traffic signal replacement.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ortega River Bascule Bridge Repairs, FDOT District 2, Jacksonville , FL	2008	2011
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X[** Check if project performed with current firm	

Project Manager for the rehabilitation of the Ortega River Bridge, including replacement of the control console and control system with a control rail to provide more space in the existing control house, replacement of the existing drives, a new relay-based control system, upgrading the span drive and span lock machinery and replacement of span support machinery components as needed to meet all AASHTO requirements and eliminate failure of pintles, replacement of the existing CCTV system, and replacement of the existing traffic warning gates and signals. In order to address the problem of potentially frozen bearing areas at the approach spans, laminated neoprene elastomeric bearing pads were installed at the approach spans. Mr. Shaup was responsible for preparation of all plans and specifications for the work.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
SR 5 (Main Street) Vertical Lift Bridge, FDOT District 2, Jacksonville,FL	2009	2010
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X[** Check if project performed with current firm	

Project Manager and Project Engineer for the analysis of the existing Main Street bridge over the St. Johns River in downtown Jacksonville, which includes a study of the feasibility for installing truss protection, replacing the existing lift span open steel deck with an exodermic deck, an evaluation of deterioration at flanking truss expansion bearings, and an evaluation of the existing lift span buffer cylinders. Also included is a complete load rating of the bridge for as-inspected conditions, including a special analysis of the gusset plates based on FHWA guidelines using LRFR methods. Mr. Shaup is responsible for the analysis, providing recommendations and cost estimates, and overall project activities.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
On-Call Engineering Services Volusia County, FL	2003	2003
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X[** Check if project performed with current firm	

Mr. Shaup served as Project Manager and Project Engineer for this on-call bridge engineering services contract for the County of Volusia. Task assignments included an in-depth inspection, recommendations and cost estimates report for three county owned double leaf bascule bridges to keep the structures open and operational for 20 years; a load rating of approach span tee beams at the Orange Avenue bridge; preparation of design plans and specifications to replace reinforced concrete bearing pedestals which support the bascule leaf rack pinions and adjacent machinery bearings with steel weldments; miscellaneous repairs at the Orange Avenue bridge, including flanking span deck replacement; and span locks replacement at all three bridges, including installation of access platforms.

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
G. Alan Klevens, PE	Quality Assurance Engineer	30	26

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Fort Lauderdale, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S.C.E., Civil Engineering, Northeastern University M.S.C.E., Civil Engineering, Northeastern University	FL / Professional Engineer (Civil) MA/ Professional Engineer (Structural)

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Districtwide Miscellaneous Bridge Design – Movable, FDOT District 2, FL	1999	2009
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

TranSystems' responsibilities included providing plans, specifications and related maintenance of traffic details for various paint projects, fender system replacements, structural steel repairs, bridge deck replacement, joint repairs, span lock replacement, buffer cylinder replacement and traffic signal replacement. Assignments included: design of mechanical and electrical rehabilitation at the Crescent Beach bascule bridge; Analysis and repair of pier footers at the SR 312 eastbound bridge, footing jackets and subaqueous steel H-piles were designed with an impressed current cathodic protection system; open grid deck and bridge fender replacement for the SR 105 over Sisters Creek Bascule Bridge; analysis of the Main Street thru truss lift bridge in Jacksonville to investigate the feasibility of installing truss protection and replacing the lift span open steel grid deck with a solid deck, full bridge load rating for as-inspected conditions was performed, as well as load rating of the primary member gusset plates; deck replacement and structural steel repairs with maintenance of traffic at the B. B. McCormick Bridges, two parallel double leaf bascule bridges over San Pablo Creek in Duval County.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Bridge of Lions SR A1A over the Matanzas River Historic Bascule Bridge Rehabilitation, FDOT District 2, St. Augustine, FL	2000	2010
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Manager for the rehabilitation/new design for the movable spans of the Bridge of Lions. This National Register of Historic Places listed bridge carries S.R. A1A over the Matanzas River. The movable span consists of a double leaf, steel rolling lift bascule span providing 76 feet of horizontal clearance. The bascule span and approaches were originally completed in 1927. The bridge is considered historically important on a local, state and national level and is strongly associated with the City of St. Augustine. TranSystems accomplished the goal of rehabilitating the bridge in accordance with the "Secretary of the Interior Standards", while providing a 75 year design life, and obtaining a "No Adverse Effect" determination from the SHPO. TranSystems' responsibilities included inspection, testing, rehabilitation of the existing bascule piers to resist scour and ship impact, as well as the structural, mechanical, and electrical design of new bascule leafs. TranSystems completed the historic evaluation and recordation of the existing bridge and worked closely with the Department and the SHPO to manage the determination of "no adverse effect" on this important property.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ortega River Bascule Bridge Repairs, FDOT District 2 Jacksonville, FL	2008	2011
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

QA Engineer for the rehabilitation design for this historic bascule bridge. Built in the 1920s, the Ortega River Bascule Bridge is a double-leaf rolling lift bridge that opens for marine traffic more than 15,000 times per year. TranSystems completed a study of the bridge's condition and then prepared plans, specifications and estimates for necessary repairs. As part of the machinery investigation, the drive machinery's ability to meet current design requirements was determined. Plans, specifications and estimates were prepared for replacement of the span drive, rolling lift curved track, span support and span lock components; replacement of the control console and control system with a rail-type panel to fit within the small operator house; replacement of gates, signals and other warning signage for the bridge; and installation of bearings on approach spans where previously there were none. Work was phased so that the bearings were replaced first in order to determine whether the bascule piers had moved. Once the final location of the piers was determined, the machinery was installed to allow for likely thermal movements.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Miscellaneous Districtwide Bridge Design Florida DOT District 2	Ongoing	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Quality assurance officer for the several projects. Work included providing plans, specifications and related maintenance of traffic details for various paint projects, fender system replacements, pile jacket projects, structural steel repairs, pile replacements, saddle bents, bridge deck replacement, joint repairs, and impact damage repairs. In addition, miscellaneous engineering services for movable bridges, including plans, specifications and related maintenance of traffic details for structural steel repairs, steel grating replacement, span lock replacement, buffer cylinder replacement and traffic signal replacement were completed.

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
Jian Huang, PhD, PE	Structural Design/Analysis	25	17

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Fort Lauderdale, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Environmental Engineering, University of Florida	FL / Professional Engineer (Civil)

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Bridge of Lions SR A1A over the Matanzas River Historic Bascule Bridge Rehabilitation, FDOT District 2, St. Augustine, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2000 — CONSTRUCTION *(If Applicable)*: 2012

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

[X] Check if project performed with current firm

Sr. Structural Engineer responsible for the rehabilitation/new design for the movable spans, originally completed in 1927. The movable span consists of a double leaf, steel rolling lift bascule span providing 76 feet of horizontal clearance. The entire structure is 1,545 feet long and has an overall deck width of 35 feet. TranSystems' responsibilities included inspection, testing, and rehabilitation of the existing bascule piers as well as the structural, mechanical, and electrical design of new bascule leaves. TranSystems designed an innovative method to support the existing bascule piers and strengthen them for ship impact and to meet current scour design criteria. TranSystems completed the historic evaluation and recordation of the existing bridge and worked closely with the Department and the SHPO.

b.

(1) TITLE AND LOCATION *(City and State)*: Ocean Ave (SR 804) over the Intracoastal Waterway, Boynton Beach-Ocean Ridge, FDOT District 4, Palm Beach County, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 1995 — CONSTRUCTION *(If Applicable)*: 2001

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

[X] Check if project performed with current firm

Senior Structural Engineer for the design of the new double leaf bascule bridge with prestressed concrete inverted tee beam approach spans, which was the first use of inverted-tee beams in District 4. The Department incorporated several of the details designed for the inverted tee-beams in creating standard drawings. The bridge design evolved from extensive public involvement and mitigation in the form of architectural detailing, public amenities and innovative design concepts. This project also included the use of geogrid-reinforced backfill technology. The approach and bascule piers are founded on drilled shafts. The bridge received a 2001 National Steel Bridge Alliance Merit Award.

c.

(1) TITLE AND LOCATION *(City and State)*: Ortega River Bascule Bridge Repairs, FDOT District 2, Jacksonville, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2008 — CONSTRUCTION *(If Applicable)*: 2011

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

[X] Check if project performed with current firm

Sr. Structural Engineer for the rehabilitation design for this 1920s historic bascule bridge with a double-leaf rolling lift. A preliminary study of the bridge's condition was completed, then plans, specifications and estimates for necessary repairs. Services included determining the condition of the bridge's mechanical machinery systems; laser surveying to determine the alignment of the tracks and tread plates; determination of the drive machinery's ability to meet current design requirements; and a detailed investigation into the cause of the bascule leaf tips contacting one another in hot weather. Plans, specifications and estimates were prepared for replacement of much of the existing mechanical machinery, including span drive, rolling lift curved track, span support and span lock components; replacement of the control console and control system with a rail-type panel to fit more appropriately within the small operator house; replacement of gates, signals and other warning signage for the bridge; and installation of bearings on approach spans where previously there were none to correct the thermal movements.

d.

(1) TITLE AND LOCATION *(City and State)*: Districtwide Structural Design and Emergency Response and CEI Services, FDOT District 4

(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

Dr. Huang has been a senior structural engineer for this Districtwide Structural Design and Emergency Response and CEI Services contract for the last 10 years. He was involved in various work orders for fixed and movable bridges, including: Load rating analysis (load factor method) for all Florida Legal Loads for 18 fixed bridges and 7 movable bridges; fatigue analysis and repair scheme development of the steel superstructure of Bridge Nos. 880036 and 88037; prepared contract plans for the rehabilitation and/or replacement for several bridges; provided specialized NDT inspection of Bridge No. 890016; NDT Inspection of cracks in the Web of Curved Steel Box Girder (Bridge No. 860430); NDT testing of impact damage of the web and bottom flange of the curve steel box girder for bridge no. 930469; NDT testing of existing sign structure base and mast arm base.

e.

(1) TITLE AND LOCATION *(City and State)*: Bascule Pier Stability Study of Sisters Creek Bridge, Florida DOT District 2

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2010 — CONSTRUCTION *(If Applicable)*: 2011

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

[X] Check if project performed with current firm

Dr. Huang was the Senior Structural Engineer for a structural evaluation of the bascule piers and recommended repairs for the Sisters Creek Bascule Bridge. The work included are to determine the stability of the existing bascule piers under the current conditions, assess the scour conditions at what point the bridge becomes unstable, and provide recommendations for the repairs and their estimated construction costs.

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
Serge J. Stiven, PE	Structural Design/ Analysis	28	24

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Fort Lauderdale, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S., Civil Engineering, Rutgers University	FL / Professional Engineer (General)
B.S., Civil Engineering, Florida A&M University	NJ/ Professional Engineer (General)

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Bridge of Lions SR A1A over the Matanzas River Historic Bascule Bridge Rehabilitation, FDOT District 2, St. Augustine, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2000; CONSTRUCTION *(If Applicable)*: 2010

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

[X] Check if project performed with current firm

Lead Designer for the design of the movable span and piers of the temporary movable bridge to be used during construction of the rehabilitation of the Bridge of Lions. TranSystems was also responsible for the historic evaluation of the existing bridge and worked closely with the Department and SHPO to manage the effect on this property.

b.

(1) TITLE AND LOCATION *(City and State)*: Royal Park Design/Build Temporary Bridge over the Intracoastal Waterway, FDOT District 4, Palm Beach, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 1999; CONSTRUCTION *(If Applicable)*: 2002

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

[X] Check if project performed with current firm

Senior Structural Engineer on the TranSystems led design team responsible for the design, construction, operation and demolition of a bascule bridge and fixed approach spans crossing the Intracoastal Waterway between the City of West Palm Beach and the Town of Palm Beach. Work included the fast track design of fixed steel stringer approach spans on fabricated steel bent caps, founded on steel pipe piles, and relocation of an existing rolling lift bascule span onto new steel pipe pile and steel framed bascule piers. The project was approximately 1 kilometer long, including the 600-meter temporary bridge and won a 2001 Design-Build Institute of America award.

c.

(1) TITLE AND LOCATION *(City and State)*: Ocean Ave (SR 804) over the Intracoastal Waterway, Boynton Beach-Ocean Ridge, FDOT District 4, Palm Beach County, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 1995; CONSTRUCTION *(If Applicable)*: 2001

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

[X] Check if project performed with current firm

Senior Structural Engineer for the design of a new double leaf bascule bridge with prestressed concrete inverted tee beam approach spans. This project represented the first use of inverted-tee beams in District 4. This project also included the use of geogrid reinforced backfill technology. Mr. Stiven was the lead designer for the bascule span thru-girder and the pedestrian Gazebo. The bridge received a 2001 National Steel Bridge Alliance Merit Award.

d.

(1) TITLE AND LOCATION *(City and State)*: Hillsboro Blvd. (SR 810) over the Intracoastal Waterway, Broward County, FDOT District 4, Deerfield Beach, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 1995; CONSTRUCTION *(If Applicable)*: 1999

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

[X] Check if project performed with current firm

Senior Structural Engineer for the rehabilitation of this double-leaf steel bascule span bridge with steel girder approach spans. Work included structural, mechanical and electrical rehabilitation, as well as architectural treatments to the control house, including addition of a second level. He was responsible for design calculations and preparation of contract documents for the structural components, including bascule span deck and stringer replacement.

e.

(1) TITLE AND LOCATION *(City and State)*: SRA1A over Hillsboro Inlet Bascule Bridge, FDOT District 4, Ft. Lauderdale, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 1993; CONSTRUCTION *(If Applicable)*: 1995

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

[X] Check if project performed with current firm

Senior Structural Engineer/Team Leader for the in-depth inspection of this single-leaf bascule bridge with prestressed concrete approach spans. He also performed the load rating analysis and the design of rehabilitation for this 329 ft. structure.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Natalie Rodriguez, PE, CBI	Structural Design/ Analysis	10	10

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Fort Lauderdale, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S., Civil Engineering, Florida International University	FL / Professional Engineer (General)

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Asset Management Inspection for Movables Bridges, FDOT District 4, Broward, Palm Beach, Martin and St. Lucie Counties, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2005	Present

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

[X] Check if project performed with current firm

TranSystems, as a sub-consultant to the Asset Maintenance Contractor, responsible for the inspection and evaluation of thirty-seven bascule bridges with fixed approach spans and one tunnel. This involves the Structural, Mechanical, Electrical, and Underwater inspections. TranSystems is also on call for emergency inspections, post rehabilitation inspections, post repair inspections and miscellaneous design services. Ms. Rodriguez is an Assistant Team Leader on this project.

b.

(1) TITLE AND LOCATION *(City and State)*
South System Inspection, Florida's Turnpike, Ft. Lauderdale, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2003	Present

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

[X] Check if project performed with current firm

Assistant Inspector for the 2003-2005 cycle for the biennial, safety inspection of 313 bridges, 400 overhead sign supports, and 171 weathering steel highmast light towers. The project included all Turnpike owned bridges, overhead sign structures, and weathering steel high mast light towers from the southernmost terminus (mile post 0.0) of the Turnpike to mile post 190, and the Sawgrass Expressway.

c.

(1) TITLE AND LOCATION *(City and State)*
Emergency Hurricane Damage Assessment, FDOT District 4, Broward, Palm Beach and Martin Counties, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2005	2007

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

[X] Check if project performed with current firm

As part of this emergency contract TranSystems designed the replacement of nineteen (19) sign structures damaged by Hurricane Wilma, as well as the replacement design of two (2) high mast light poles and repair of mast arm assemblies. The work included site visits, determining soil boring locations, design calculations, contract plans preparation and post design services for the construction of the new sign structures. Also as part of this contract TranSystems was responsible for the repair design of sign structures damaged by Hurricane Katrina in Broward County. Ms. Rodriguez was responsible for the inspection and replacement design of these tasks.

d.

(1) TITLE AND LOCATION *(City and State)*
Replacement of Sign Structures due to Hurricane Wilma, FDOT District 4, Broward and Palm Beach, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2005	2007

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

[X] Check if project performed with current firm

Senior Structural Engineer for the rehabilitation of this double-leaf steel bascule span bridge with steel girder approach spans. Work included structural, mechanical and electrical rehabilitation, as well as architectural treatments to the control house, including addition of a second level. He was responsible for design calculations and preparation of contract documents for the structural components, including bascule span deck and stringer replacement.

e.

(1) TITLE AND LOCATION *(City and State)*
Repair of Mast Arm Assemblies, FDOT District 4, Broward and Palm Beach, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2005	2007

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

[X] Check if project performed with current firm

Ms. Rodriguez is the Structural Engineer for the replacement design of two (2) high mast light poles and the repair of mast arm assemblies damaged by Hurricane Wilma. The work included site visits, determining soil boring locations, design calculations and contract 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
Eric Reid, PE	Structural Design/ Analysis	8	8

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Fort Lauderdale, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S.M.E., Mechanical Engineering/Economics,University of Virginia	FL / Professional Engineer (Civil)

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ortega River Bascule Bridge Repairs, FDOT District 2, Jacksonville, FL	2008	2011
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Mr. Reid was a structural engineer for the rehabilitation of the Ortega River Bridge, including the replacement of numerous components of the mechanical and electrical systems, including replacement of the control console and control system with a control rail to provide more space in the existing control house, replacement of the existing drives, a new relay-based control system, upgrading the span drive and span lock machinery and replacement of span support machinery components as needed to meet all AASHTO requirements and eliminate failure of pintles, replacement of the existing CCTV system, and replacement of the existing traffic warning gates and signals. In order to address the problem of potentially frozen bearing areas at the approach spans, laminated neoprene elastomeric bearing pads were installed at the approach spans. Mr. Reid performed calculations and reviewed plans for the work performed on the approach spans.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Florida's Turnpike, South System Inspection Turnpike District	2007	2009
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Mr. Reid was an Assistant Inspector during the 2007 - 2009 cycle for the biennial safety inspection of 313 bridges, 313 overhead sign supports, and 171 weathering steel highmast light towers. The project included all Turnpike owned bridges, overhead sign structures, and weathering steel high mast light towers from the southernmost terminus (mile post 0.0) of the Turnpike to mile post 190 and the Sawgrass Expressway.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
I-95 PD&E Study Glades to Yamato, FL	2010	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	[X] Check if project performed with current firm	

Prepared, planned and managed all the public workshops, public hearing and all informal meetings for the I-95 PD&E Study. He has coordinated with key public officials, DOT project managers, and community leaders, for all public involvement tasks. Eric also drafted and finalized the Public Involvement Program (PIP) and he has prepared all Public Involvement Presentations. Eric also prepared a complete Alternatives Analysis report for this PD&E. The alternatives analysis report analyzed over fifteen alternatives and each alternative had a qualitative and quantitative analysis.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
SR 710 / Beeline Highway PD&E Study	Ongoing	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	[X] Check if project performed with current firm	

Coordinator for all public involvement activities, and project coordination. He has assisted Quazi Masood, PE with Traffic modeling tasks and responsibilities. Eric also prepared a complete Alternatives Analysis report for this PD&E. The alternatives analysis report analyzed over fifteen alternatives and each alternative had a qualitative and quantitative analysis.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
SR 76 PACE Study Martin County, FL	2005	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	[X] Check if project performed with current firm	

Finalized the final report for the DOT and the Martin County MPO. He reviewed concept plans and typical sections for DOT approval. He has also prepared the final DOT presentation to the Martin County MPO. Project Manager Tammy Campbell has given Eric high accolades for his work on this project.

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
Bradley Kopping, PE	Mechanical Design	21	4

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, New York City, NY

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S., Mechanical Engineering, New York Institute of Technology, 1989	FL / Professional Engineer (Mechanical) NY/ Professional Engineer (Mechanical)

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Asset Management Inspection of Movables Bridges, FDOT District 4, Broward, Palm Beach, Martin and St. Lucie Counties, FL	2005	Present
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Senior Mechanical Engineer responsible for machinery inspections and recommendation reports for all state-owned movable bridges in the district. TranSystems, as a subconsultant to the asset maintenance contractor, was responsible for the inspection and evaluation of thirty-seven bascule bridges with fixed approach spans. The movable bridge inspections included the structural, mechanical, electrical, and underwater inspections. Routine inspections, including underwater inspections were performed on a biennial basis for all bridges and inspections of the movable spans were done annually. TranSystems was also on call for emergency inspections, post rehabilitation inspections, post repair inspections and miscellaneous design services.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Inspection & Evaluation of Bridges at Kennedy Space Center	2005	Present
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

TranSystems conducted in-depth visual inspections and load ratings of 5 bascule and 3 fixed bridges located at the Kennedy Space Center. Bascule Bridges included: Indian River Bridges – two parallel 2,993 ft. long structures with 55 prestressed concrete and steel multi-beam spans and a double leaf bascule span; Banana River Bridge – 762 ft. long with 12 prestressed concrete and steel multi-beam spans and a double leaf bascule span; Haulover Canal Bridge – 225 ft. long with two steel multi-beam spans and a double leaf bascule span; Jay-Jay Railroad Bridge – 2,058 ft. long with 74 steel deck girder spans and a single leaf through girder bascule span.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Connecticut River Bridge No. 106.89, Amtrak Old Saybrook, CT	2003	2004
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	[X] Check if project performed with current firm	

$2 million fast-track inspection and operational evaluation of this Northeast corridor, single-leaf Scherzer rolling-lift bridge led to an in-depth mechanical inspection for abnormal wear patterns and machinery failure. Provided mechanical repairs and design of electrical control system replacement. Design includes motion controller-based primary control system and PC-based data acquisition system. Provided construction support. Mechanical Engineer responsible for performing design and providing calculations for auxiliary drive.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Alford Street Bridge over the Mystic River Boston, MA	2000	2002
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	[X] Check if project performed with current firm	

$25 million structural, mechanical, and electrical rehabilitation design of this 1400-foot-long bridge crossing the Mystic River. Comprises 8 spans - 7 approach spans and twin, double-leaf steel bascules (160 feet long). Included inspection, repair recommendations, deck replacement, and lighting, heating, and traffic control system design. New design calls for the complete replacement of the existing four leaves, including girders, floorbeams, stringers and deck. The new deck is steel grating, half filled with concrete along the stringer lines to reduce fatigue stresses. Mechanical Engineer responsible for performing design and providing calculations for auxiliary drive.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Inspection of Movables Bridges FDOT District 4, FL	Ongoing	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	[X] Check if project performed with current firm	

Senior Mechanical Engineer responsible for machinery inspections and recommendation reports for State-owned bridges in the District. TranSystems, as a sub-consultant to the Asset Manager, was responsible for the inspection and evaluation of thirty-seven bascule bridges with fixed approach spans, one tunnel, and seventy-four fixed bridges. The movable bridge inspections included the structural, mechanical, electrical, and underwater inspections. Routine inspections, including underwater inspections were performed on a biennial basis for all bridges and inspections of the movable spans were done annually. TranSystems was also on call for emergency inspections, post rehabilitation inspections, post repair inspections and miscellaneous design 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
Todd Dunavant, AIA, LEED, AP	Architectural Design	24	9

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Jacksonville, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.A., Architecture University of Florida B.A., Architectural Design University of Florida	FL / Professional Engineer (General)

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
IDIQ Facilities Improvement Contract, Savannah Hilton Head International Airport Parking Garage Expansion, Savannah, GA

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

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

[X] Check if project performed with current firm

Project Architect for parking structure includes brick façade and fully roofed top level. Scope of projects included cost and scope feasibility study to add parking levels to the existing parking garage facilities. Involves structural analysis and preliminary architectural designs. Designed to integrate with existing architecture. Parking will accommodate 1500 cars. Design includes new elevated walkways from garage to terminal building through an atrium space centered on an existing monumental staircase and water fountain.

b.

(1) TITLE AND LOCATION *(City and State)*
IDIQ Facilities Improvement Contract, Savannah Hilton Head International Airport, Combined Maintenance Facility ,Savannah, GA

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2004	2005

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

[X] Check if project performed with current firm

Consolidated facility includes warehouse/storage facility with loading dock, offices and dining area, shops and locker/shower space for airport maintenance staff. Also includes renovation/addition to an existing vehicle maintenance building w/ lifts and overhead crane hoist. An open-air vehicle/equipment shed is also included. Todd helped master plan the entire site to accommodate future expansions to each component.

c.

(1) TITLE AND LOCATION *(City and State)*
IDIQ Facilities Improvement Contract, Savannah Hilton Head International Airport, Concourse Expansion, Savannah, GA

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2005	2007

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

[X] Check if project performed with current firm

5-gate addition to existing airport concourse. It includes renovation of adjacent spaces and adherence to new stringent FAA regulations. A gate/jetway location study will be performed to maximize future flexibility of the entire facility.

d.

(1) TITLE AND LOCATION *(City and State)*
IDIQ Facilities Improvement Contract, Savannah Hilton Head International Airport, Toll Booth Expansion, Savannah, GA

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2004	2005

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

[X] Check if project performed with current firm

2-lane addition to existing toll booth canopy. Includes standing seam metal roof to math existing roof, coordination of construction to insure existing lanes are operational during all phases of work.

e.

(1) TITLE AND LOCATION *(City and State)*
Repair of Mast Arm Assemblies, FDOT District 4, Broward and Palm Beach, FL

(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

2000-SF addition to existing brick electrical utilities building to accommodate current and future planned airport expansions.

MES 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
Ian Biava, PE	Highway Design/ Signing Pavement Marking/ Signalization	22	< 1

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Fort Lauderdale, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S. / Civil Engineering, University of Florida	FL / Professional Engineer

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
SR 934 Roadway Improvements, FDOT District Six
Miami-Dade County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	

Check if project performed with current firm

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

Engineer of Record. Design-bid resurfacing, restoration and rehabilitation project. This is an urban arterial which included traffic calming, improved channelization, drainage improvements, landscape island upgrades, pedestrian access improvements, ADA compliant pedestrian features, traffic signal upgrades, pedestrian signal upgrades, and other safety improvements.

b.

(1) TITLE AND LOCATION *(City and State)*
I-95/HOV, North of Forest Hill Boulevard to North of Congress Avenue, FDOT District Four, Palm Beach County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	

Check if project performed with current firm

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

Project Manager. Addition of HOV lanes along I-95 in Palm Beach County. Specifically responsible for design of the Traffic Control Plans

c.

(1) TITLE AND LOCATION *(City and State)*
I-595 Corridor Roadway Improvements Project, FDOT District Four
Broward County, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2011	

Check if project performed with current firm

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

Design Team Manager. Corridor design consultant task leader in the geometric development of the I-595 corridor from I-75 to I-95 including the interchange with Florida's Turnpike. This is a $1.2 billion construction project currently under construction.

d.

(1) TITLE AND LOCATION *(City and State)*
SR 84 Westbound/I-595/I-75 Westbound Slip Ramp
FDOT District Four, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2004	

Check if project performed with current firm

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

Project Engineer. Alternatives Design and Analysis. Designed detailed alternative alignments for a new slip ramp connection from westbound I-595/I-75 to westbound SR 84 within the Sawgrass Expressway/I-75/I-595/SR 84 interchange. Four alignments were presented to FDOT, including a recommended alignment. The construction of this project successfully relieved congestion at the SR 84 WB/SW 136 AV signalized intersection.

e.

(1) TITLE AND LOCATION *(City and State)*
I-4 Ultimate Reconstruction-Ivanhoe to Kennedy
FDOT District Five, Orlando, FL

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2008	

Check if project performed with current firm

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

Mr. Biava is a civil engineer on this project, responsible for horizontal and vertical design support and quality. assurance. This is a 5-mile project, from Ivanhoe Boulevard to Kennedy Boulevard, designed to improve mobility within the existing I-4 corridor through Orlando. The project involves reconstructing I-4 to provide six general use lanes, auxiliary lanes, improved interchanges, special use lanes, and provisions for a light rail system. Service includes The project is designed to a Part A completion and consists of 65% roadway plans; 90% drainage plans and 15% bridge plans, Part A drainage design and permitting.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Mark Owen, PE	Highway Design/ Signing Pavement Marking/ Signalization	33	4

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Maitland, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering Technology, 1980, University of Alabama	FL /GA/NC/VA Professional Engineer (Civil)

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
I-95 Auxiliary Lanes - FDOT District Four Palm Beach County, FL	1997	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	Check if project performed with current firm	

Responsible for design and preparation of contract documents for widening and resurfacing of 1.4 miles of I-95. Improvements included realignment and reconstruction of entrance and exit ramps between Forest Hills Road and Southern Boulevard. Plans also included a bridge over Summit Boulevard.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
I-4 Ultimate Reconstruction-Ivanhoe to Kennedy, FDOT District Five, Orlando, FL	2008	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	Check if project performed with current firm	

Project Manager. This 5-mile project, from Ivanhoe Boulevard to Kennedy Boulevard, is designed to improve mobility within the existing I-4 corridor through Orlando. The project involves reconstructing I-4 to provide six general-use lanes, auxiliary lanes, improved interchanges, special use lanes, and provisions for a light rail system. Service includes review of Bridge Development Reports for more than 20 bridges, Part A drainage design and permitting.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
I-75 / Golden Gate Parkway Interchange Final Design, FDOT District One, Naples, FL	2007	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	Check if project performed with current firm	

Project Manager. This project was for the design of a new interchange on I-75 at Golden Gate Parkway in Naples. Project includes widening of Golden Gate Parkway over I-75 and three (3) new ramp bridges over the Golden Gate canal. Project also includes the 6-laning of Golden Gate Parkway, frontage roads, lighting, plans, signalization, signing and pavement marking and landscaping.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
SR 436 Final Design, FDOT District Five Orlando, FL	2004	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	Check if project performed with current firm	

Project Manager. This project was for the final design of SR 436 which included plans to widen 4.5 miles of four-lane divided rural section to a six-lane divided urban roadway with curbs and gutters. Design included bicycle lanes, pedestrian facilities, signing and pavement marking, signalization plans for 10 intersections, street lighting, major regional detention ponds, ex-filtration drainage design, wetland mitigation, environmental permitting, traffic control plans, box culverts, retaining walls and public involvement.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Repair of Mast Arm Assemblies, FDOT District 4, Broward and Palm Beach, FL	2007	
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	Check if project performed with current firm	

Engineering Manager. The project involved widening to six (6) lanes 12.5 miles of I 4, from east of SR 44 to west of I-95, by adding a lane to the outside in each direction. Project included replacement of the Tomoka River Bridge, MSE, anchored sheet walls, three new animal underpasses and reconstruction of the I-4/US 92 interchange to replace the existing bridge with a new flyover ramp. The flyover ramp is a five-span, 1,072-foot bridge with continuous curved steel plate girders.

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	
John Scarlatos	Highway Design/ Signing Pavement Marking/ Signalization, Planning/Public Involvement	a. TOTAL: 13	b. WITH CURRENT FIRM: 8

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Fort Lauderdale, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S., Mechanical Engineering, FAU	

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Interstate 95 Sketch Interstate Plan (SIP), FDOT Central Office Systems Planning, FL	PROFESSIONAL SERVICES: 2010	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	**[X]** Check if project performed with current firm	

Project Engineer. Developed Existing Conditions Report for the SIP. Purpose of project was to outline a course of action to improve users/travelers mobility within the I-95 corridor from the Georgia/Florida state line south to the Brevard County/Indian River County line. The study identified mainline concepts to provide increased mobility to adequately serve high speed, long-distance, high volume travel facilitating interstate and regional commerce. A significant focus of this study was the movement of a high volume of trucks and freight through the corridor.

b.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
US 1 PD&E Martin County, FL	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 Engineer. This PD&E project which involved widening US 1 from six to eight lanes, and extensive access management work, including coordination with the Variance Committee, the public and local governments, addition of bicycle lanes, sidewalks, and a landscape scheme. He has worked on the development of the conceptual plans, typical section package, and the Preliminary Engineering Report. Together with Mike Tomecko and Frank Gordon, John drafted the preliminary drainage report for this PD&E project. Provided all coordination for, and assisted in drafting the environmental documents for this project. Supervised all public hearing graphics and assisted in the public involvement process.

c.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
I-95 HOV Lanes PD&E Palm Beach County, FL	PROFESSIONAL SERVICES: 2002	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	[X] Check if project performed with current firm	

Project Engineer. Provided support for the PD&E and 30% plans (CADD support) in the I-95 HOV lane project in Palm Beach Gardens which involved road and bridge widening from six to ten lanes, as well as drainage design. Involved in the development and review of the typical section package, design variance and exceptions analysis, ramp Design Variance and exceptions analysis, ramp design, bridge clearances review, involvement in preliminary drainage design, preliminary right-of-way plans, and traffic control plans. Wrote portions of the PE Report and instrumental in QA/QC for this seven mile project.

d.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
Okeechobee Road Expert Witness Okeechobee, FL	PROFESSIONAL SERVICES: 2001	CONSTRUCTION *(If Applicable)*
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE	[X] Check if project performed with current firm	

Project Engineer. This project involved widening of Okeechobee Road where right-of-way take was needed which would impact the business of an adjacent gas station. Assisted in all CADD work and the development of a plan that would avoid impact of business damages.

e.

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
SR 710 Project Development & Environment Study Martin and Palm Beach Counties, FL	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	

Project Engineer. This roadway capacity improvement project in Martin and Palm Beach Counties will add two lanes to the existing 2-lane undivided rural segment of SR 710 (Bee Line Highway) from one mile east of SR 76 to the Pratt Whitney Entrance, give consideration to a shared use path from the Pratt Whitney Entrance to Northlake Boulevard, and add two lanes to the existing four lanes from Northlake Boulevard to Blue Heron Boulevard (to be converted to an urban section). An interchange at Northlake Boulevard is also included.

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
Eric Wooley, PE	Highway Design/ Signing Pavement Marking/ Signalization	20	3

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Maitland, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
University of Central Florida, B.S. Civil Engineering	FL / Professional Engineer

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
SR 436 (Semoran Blvd.) between SR 528 (Beach Line Expressway) and SR 552 (Curry Ford Road) Final Design

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

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

Check if project performed with current firm

Project Engineer. The project involved the reconstruction of SR 436 from a 4-lane divided roadway to a 6-lane urban section with a 30-foot raised median with bicycle lanes and pedestrian facilities. Other improvements included signing and marking, signalization, lighting, and structural design.

b.

(1) TITLE AND LOCATION *(City and State)*
SR 408 Widening-Oxalis Drive to Chickasaw Trail
Orlando, 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

Project Engineer. This final design project for the Orlando/Orange County Expressway Authority (OOCEA) involved reconstruction of SR 408, from Oxalis Drive to Chickasaw Trail, for increased capacity, safety improvements and side street operations. The project involved widening existing bridges, interchange modifications at Goldenrod Road and a new interchange at Chickasaw Trail. The proximity of the interchanges made it necessary to design new braided ramps to improve traffic operations. Services provided also included assisting in final stormwater conveyance system, pond design and permitting.

c.

(1) TITLE AND LOCATION *(City and State)*
I-75 Widening from South of Tuckers Grade to south of Jones Loop, FDOT District One, Charlotte County, FL

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

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

[X] Check if project performed with current firm

Project Engineer. Project consists of the widening of I-75 from four lanes to six lanes from south of Tuckers Grade to south of Jones Loop, a total of 3.5 miles. It also includes the widening of I-75 bridges over Tuckers Grade and Alligator Creek.

d.

(1) TITLE AND LOCATION *(City and State)*
Michigan Avenue Roadway Improvements - Osceola County, Kissimmee, FL

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: 2001
CONSTRUCTION *(If Applicable)*:

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

Check if project performed with current firm

Project Manager/Engineer. Was responsible for budget and schedule and served as primary liaison with Osceola County and city of Kissimmee. Coordinated and conducted all meetings associated with project. Served as primary designer in compliance with all FDOT criteria. Managed and designed widening (to four lanes) and urbanizing of an existing 2-lane rural section. Prepared preliminary engineering study, pond siting reports and right-of-way and easement acquisition. Coordinated permitting activity and compliance. Coordinated and developed bore and jack permitting via CSX Railroad. Also coordinated all subconsultant activity associated with project, including topographical and geotechnical surveys, the environmental assessment and utility relocation requirements.

e.

(1) TITLE AND LOCATION *(City and State)*
FDOT District 5, I-4 Widening-Deland to Daytona, Volusia County, FL

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

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

Check if project performed with current firm

Project Manager. The project involved widening to six lanes 12.5 miles of I 4, from east of SR 44 to west of I-95, by adding a lane to the outside in each direction. Project included replacement of the Tomoka River Bridge, MSE, anchored sheet walls, three new animal underpasses and reconstruction of the I-4/US 92 interchange to replace the existing bridge with a new five-span, 1,072-foot flyover ramp with continuous curved steel plate girders. As Project Manager and Project Engineer, Mr. Wooley provided technical design and traffic control, quantity analysis and preliminary engineering reports for the project.

MES 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
Jeffrey S. Flanders, PE	Electrical Design	21	10

15. FIRM NAME AND LOCATION *(City and State)*
TranSystems, Jacksonville, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S. / Electrical Engineering, Florida State University	FL, SC, VA, WA / Professional Engineer (Civil) Certified Fluid Power Engineer, Certified Fluid Power Hydraulics Specialist, Certified Fluid Power Pneumatics Specialist

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

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Crescent Beach Bridge,
Crescent Beach, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2008	2009

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

[X] Check if project performed with current firm

Responsible for the design of a complete control system including modern variable speed drives for a double leaf bascule bridge. Control system design featured full PLC control and monitoring with relay backup. Variable speed drives were specified as fully digital flux vector technology with diagnostic interface to the control system to insure safe control of the bride leaves during fault conditions.

b.

(1) TITLE AND LOCATION *(City and State)*
US 41 over Hatchett Creek, FDOT District 1
Venice, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2006	2008

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

[X] Check if project performed with current firm

Responsible for the design of a 60 horsepower hydraulic drive system (one for each leaf) for the operation of a four leaf bascule bridge. Duties involved the design of the hydraulic drive system based on specific operating criteria and the design of a control system with all necessary safety interlocks and drive controls for the bridge machinery. The hydraulic drive design utilized a standard industrial design with diagnostic for monitoring of system functions.

c.

(1) TITLE AND LOCATION *(City and State)*
US 41 (South Bridge), FDOT District 1
Venice, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	2008

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

[X] Check if project performed with current firm

Responsible for the design of a 60 horsepower, open-loop hydraulic cylinder drive system for the operation of a four leaf bascule bridge. Duties involved the design of the hydraulic drive system based on specific operating criteria and the design of a control system with all necessary safety interlocks and drive controls for the bridge machinery.

d.

(1) TITLE AND LOCATION *(City and State)*
A1A/17th Street Causeway Permanent Bridge, FDOT District 4
Fort Lauderdale, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2000	2002

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

[X] Check if project performed with current firm

Mr. Flanders was responsible for drive system analysis and comparison for a new double span, double leaf bascule bridge. Prepared plans and specifications for bridge electrical and control systems using 125 horsepower DC motor drives. Performed shop drawing review of electrical system during construction.

e.

(1) TITLE AND LOCATION *(City and State)*
SW 2nd Avenue Bridge, Miami, FL, Dade County in conjunction with FDOT District 6

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2002	2002

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

[X] Check if project performed with current firm

Provided Construction, Engineering, and Inspection (CEI) assistance relating to the installation of electrical power and control systems for a new double leaf bascule bridge. Duties involved shop drawing review, shop test witnessing, and on-site inspection. Electrical systems included dual stations for bridge operations, full PLC logic controls, low voltage lighting controls, and 480 VAC motor controls.

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
Armando Guzman, 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 Arts in Social Science	Certified Bridge Inspector # 407, 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

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. Guzman 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. Guzman 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. Guzman 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. Guzman 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. Guzman 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	
		a. TOTAL	b. WITH CURRENT FIRM
Miguel Soria, P.E.	Engineer of Record	23	18

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)*
B.S in Civil Engineering	Florida Professional Engineer Lic. No. 49359

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

Traffic Control TC-M-A 22879162 , Value Engineering CUS #840603, Florida Engineering Society , American Society of Civil Engineers

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. Soria was the Engineer of Record for this project. It 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. Soria was the Engineer of Record for this project. It 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. Soria was the Engineer of Record for this project. It 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. Soria was the Engineer of Record for this project. It 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. Soria was the Engineer of Record for this project. It 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	
		a. TOTAL	b. WITH CURRENT FIRM
Omar Porras, CBI	Senior Certified Bridge Inspector	21	8

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)*
N/A	Certified Bridge Inspector #368, Florida

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

Commercial Diver, Rescue Diver, Divemaster, Diving Instructor- National Highway Institute, Engineering Concept for Bridge Inspection, Stream Stability and Scour at Highway Bridges for Bridge Inspectors, U.S.C.G. Certified, Maritime Professional Engineers; Strengthening & repairing concrete structures; Fracture Critical Inspection Techniques for Steel Bridges

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. Porras was a team leader for this project 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. Porras was a team leader for this project 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. Porras was a team leader for this project 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. Porras was a team leader for this project 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. Porras was a team leader for this project 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	
		a. TOTAL	b. WITH CURRENT FIRM
Reinaldo Padrino, CBI	Senior Certified Bridge Inspector	29	8

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)*
N/A	Certified Bridge Inspector # 242, Florida

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

Commercial Diver, OSHA Fall Protection, Stream Stability and Scour at Bridges-1986, Engineering Concepts for Bridge Inspectors-1984, Safety Inspection of In-Service Bridges-1984,

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. Padrino 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. Padrino 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. Padrino 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. Padrino 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. Padrino 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	
		a. TOTAL	b. WITH CURRENT FIRM
Stephen Hays, CBI	Senior Certified Bridge Inspector	7	1

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)*
HS	Certified Bridge Inspector # 438, Florida

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

Commercial Diver

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: FDOT Districts 1 and 7 Inspection Projects- Pinellas Park, 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. Hays was the lead for 2 cycles for these contracts Underwater Construction Inspections Statewide. All phases of Jacket installation, debris sweeps before and after construction, pump mats and armor mat.
Also included were Pipeline and cable locating, and Non destructive testing.

b.

(1) TITLE AND LOCATION *(City and State)*: FDOT Districts 2 and 5 Inspection Projects- Pinellas Park, 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. Hays was the lead for 2 cycles for these contracts Underwater Construction Inspections Statewide. All phases of Jacket installation, debris sweeps before and after construction, pump mats and armor mat.
Also included were Pipeline and cable locating, and Non destructive testing.

c.

(1) TITLE AND LOCATION *(City and State)*: FDOT Districts 1 and 7 Inspection Projects- ,Clearwater, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2008 — CONSTRUCTION *(If applicable)*:

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

☐ Check if project performed with current firm

Mr. Hays performed routine underwater and topside inspections for State and local Government bridges, culverts, damns throughout 16 counties.

d.

(1) TITLE AND LOCATION *(City and State)*: Underwater Engineering Services- Port St.Lucie, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: 2003 — CONSTRUCTION *(If applicable)*:

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

☐ Check if project performed with current firm

My Hays performed Cable Locating (FPL), Pile Encasements, Salvaged and Pile extractions ,Armor and pump mat installations, Heavy equipment operations, backhoe, skid steer, and Boating/ barge operations

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
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	
		a. TOTAL	b. WITH CURRENT FIRM
Eduardo Vazquez, EI,CBI	Project Manager/Lead CBI	17	12

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)*
B.S in Civil Engineering	Certified Bridge Inspector # 00369, Florida

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

FHWA-NHI-130078 – Fracture Critical Inspection Techniques for Steel Bridges-2011, FDOT Engineering Concepts for Bridge Inspectors- 2000, Safety Inspections of In-Service Bridges- 2000, PADI / Rescue Diver Certifications

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.Vazquez was in charge of this assignment. It 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.Vazquez was in charge of this assignment. It 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.Vazquez was in charge of this assignment. It 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.Vazquez was in charge of this assignment. It 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.Vazquez was in charge of this assignment. It 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.

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)
SR804 / Ocean Avenue over the ICW, Bascule Bridge Replacement, Boynton Beach/Ocean Ridge, Palm Beach County, FL	2001	2001

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida Department of Transportation District 4	John Danielsen, P.E.	954.777.4644

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

TranSystems designed a "signature" bascule bridge over the Intracoastal Waterway between the City of Boynton Beach and the Town of Ocean Ridge in Palm Beach County, FL. The length of the new structure is 108 m (355 ft) long with a bascule span with a horizontal clearance of 38.1 m (125 ft) and includes continuous through-girders with spans of 52.3 m (171.6 ft). The new structure carries 2 lanes of traffic and sidewalks, and bicycle paths. TranSystems designed the structure, including the approach structures, bascule span, machinery, and control systems. Items of particular interest on this project included:

- Aesthetics of Bridge Tender's House, Piers and Retaining Walls
- Extensive Community Involvement Program including Workshops to Develop the Project Aesthetics
- Solid Bascule Deck to Reduce Grid Noise
- Thru-girders in the bascule spans to reduce the profile grade and overall height of the structure
- Independent Drive System Used to Provide Redundancy with Torque Sharing
- Deep muck on both approaches required innovative methods of construction, including a surcharge program geosynthetics and mechanically stabilized earth (MSE) walls
- Project used as part of pilot program to develop standards for prestressed concrete inverted tee beams

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	TranSystems	Fort Lauderdale, FL	Prime consultant

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

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Districtwide Miscellaneous Bridge Design – Movable Various Counties, FL	2009	2011

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida DOT- District 2	Jeff Bailey, P.E.	904.360.5577

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

TranSystems' responsibilities included providing plans, specifications and related maintenance of traffic details for various paint projects, fender system replacements, structural steel repairs, bridge deck replacement, and joint repairs. In addition, TranSystems completed miscellaneous engineering services for movable bridges, including plans, and specifications for structural steel repairs, steel grating replacement, span lock replacement, buffer cylinder replacement and traffic signal replacement. As part of this Districtwide Miscellaneous Bridge Design contract, TranSystems was assigned the following work orders, among others.

- Design of mechanical and electrical rehabilitation at the Crescent Beach bascule bridge in St. Johns County. Work was performed through the Phase III submittal
- Analysis of pier footers at the SR 312 eastbound bridge to determine the source of significant cracking. Upon completion of the analysis, footing jackets and subaqueous steel H-piles were designed with an impressed current cathodic protection system. Main span modular joints were also replaced
- Design of a new open grid deck and bridge fenders for the SR 105 over Sisters Creek Bascule Bridge. Design was site-specifically designed to resist ship impact forces using FDOT standardized details prior to their implementation as design standards
- Design of open steel grid deck replacement for the high level three span continuous thru-truss Mathews Bridge in Jacksonville with a new open grid option
- Analysis of the Main Street thru truss lift bridge in Jacksonville to investigate the feasibility of installing truss protection and replacing the lift span open steel grid deck with a solid deck. Additional work included an investigation into the flanking truss expansion bearings and lift span buffer cylinders to determine required work. A full bridge load rating for as-inspected conditions was performed, as well as load rating of the primary member gusset plates
- Preliminary engineering study and report on the mechanical and electrical systems; investigation into possible movement of bascule piers; rehabilitation design at the Ortega River bascule bridge in Jacksonville
- Investigation into the presence of stray currents at the SR 312 bridges to determine effects on the structure under water
- Analysis of five bridges with deteriorated piles and a detailed investigation of impacts related to replacement of the open steel grid deck at the Crescent Beach bascule bridge with a closed exodermic deck; and span lock and buffer cylinder replacement, as well as relocation of bridge traffic signals to new monotube supports
- Deck replacement and structural steel repairs with maintenance of traffic at the B. B. McCormick Bridges, two parallel double leaf bascule bridges over San Pablo Creek in Duval County
- Design of a scour monitoring system for three bridges in two phases
- Joint replacement with maintenance of traffic for the Memorial Bridge over St. Johns River in Putnam County
- Design of an emergency retrieval system for the high level cable-stayed Dames Point Bridge piers in Jacksonville
- Repair of damaged beam ends and painting at two bridges carrying SR 105 over Myrtle Creek and Simpson Creek
- Replacement of all deteriorated cable wraps, the timber platforms spanning between the fenders and piers, replacement of the navigational lights, and replacement of the clearance gauge signs at two bridges in Jacksonville

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	TranSystems	Fort Lauderdale, FL	Prime consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: 3

21. TITLE AND LOCATION *(City and State)*: Districtwide Miscellaneous Bridge Design, Various Counties, FL

22. YEAR COMPLETED

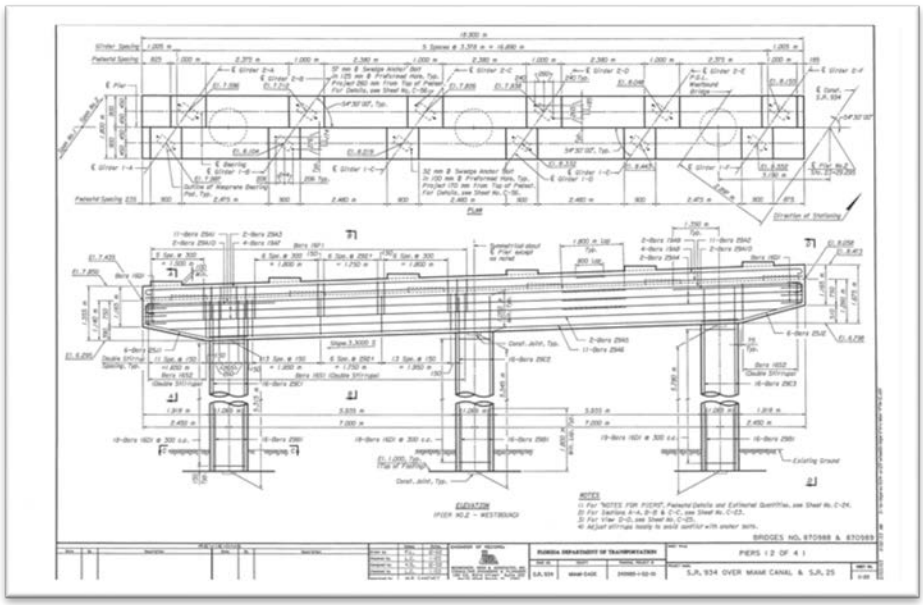
PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
2008	N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida DOT - District 6	Jorge Rodriguez	305.599.2485

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

As part of this contract with District 6, TranSystems provided support to the Department for a wide range of engineering and technical services to assist in numerous project-related tasks within the District's work program. This work order included tasks to be performed on an on-call basis, including assignments on short notice. Tasks completed under this work order included:



- Plans review for sidewalk widening for SR 989/SW 112th Avenue over Black Creek Canal
- Plans review for Jewfish Creek temporary sheet pile wall
- Plans review for US 1 over Canal C-111 bridge and US 1 wildlife undercrossing
- Plans review for SR 997 (Krome Ave.) bridge
- Plans review for SR 5 over Channel 2 bridge
- Plans review for SR AIA over Haulover Cut bridge
- Plans review for SR 997 (Krome Ave.) Bridges
- Plans review for SR 823 (NW 57th Ave - Red Road) bridge
- Plans review for NW 42th Ct/NW 20th Street & McLaughlin Drive bridge
- Plans review for MIA Perimeter Road bridge
- Plans review for SR 112/I-95 bridge widening

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	TranSystems	Fort Lauderdale	Prime consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: 4

21. TITLE AND LOCATION *(City and State)*: Districtwide Structures Repair / Rehabilitation Plans Preparation, Miami-Dade and Monroe Counties, FL

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Ongoing - 2016	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida DOT - District 6	Luis Amigo	305.470.5436

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

TranSystems' responsibilities include providing plans, specifications and related maintenance of traffic details for various paint projects, fender system replacements, structural steel repairs, bridge deck repairs, substructure repairs, cathodic protection system, joint repairs, miscellaneous engineering services for movable bridges, including electrical and mechanical related work, steel grating replacement, span lock replacement, buffer cylinder replacement and traffic signal replacement. As part of this Districtwide Repair/Rehabilitation Plans Preparation contract, TranSystems has been assigned the following work orders:

- Repair / Rehabilitation and Painting of Bridge Nos. 870657 & 870722. The scope of services for this task order includes the repair of deteriorated concrete elements, replacement of existing damaged expansion joints and cleaning and painting
- of structural steel components.

- Repair / Rehabilitation and Painting of Pedestrian Bridge No. 879004, Miami-Dade County, District 6. The scope of services for this assignment includes repair of deteriorated concrete elements, the replacement of existing damaged expansion joints and cleaning and painting of structural steel members.

- SR 5/US-1 Overseas Highway over Little Duck Channel Repair / Rehabilitation of Bridge No. 900103, Monroe County, District 6. This work assignment includes the replacement of existing damaged expansion joint seals, repair spall areas, repair/restore existing concrete piles, pile caps, and concrete columns.

- SR 5 /US-1 Overseas Highway/Ohio Missouri Channel Repair/Rehabilitation Bridge No. 900104, Monroe County, District 6. This task work order consists of preparing complete cathodic protection system plans and specifications for this bridge rehabilitation project. This includes estimation of quantities and costs.

- SR 5 /US-1 Overseas Highway/Boca Chica Channel Repair/Rehabilitation Bridge Nos. 900003 & 900074, Monroe County, District 6. Under this task order TranSystems is to provide complete cathodic protection system plans and specifications for this bridge repair project including quantity calculations and cost estimate.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	TranSystems	Fort Lauderdale, FL	Prime Consultant

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

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
Districtwide Structural Design and Emergency Response and CEI Services, Various Counties, FL	PROFESSIONAL SERVICES 2006-2016	CONSTRUCTION (if Applicable)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida DOT - District 4	John Danielsen, P.E.	954.777.4644

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

As part of the Districtwide Structural Design and Emergency Response and CEI Services contract, TranSystems was assigned various work orders, including preparation of technical specifications and condition assessments for bridge painting at several bridges, preparation of load ratings for several bridges, including substructure load ratings based on as-inspected conditions, CEI services for various minor projects, and the following other work:

- Designed H-pile repairs for two bridges with revised substructure load rating to reflect repairs.
- Designed new navigational light system for bridges over the North New River Canal at the intersection of I-595 & US 441 in Broward County.
- Designed MOT plans, lock motor details, coating condition assessment & required technical special provisions for two movable bridges.
- Provided mechanical engineering services for Sheridan Street bascule bridge hydraulic cylinder repairs.
- Inspected and prepared inspection reports for 26 State owned bridges in PONTIS.
- Reviewed I-95 over the South Fork of the New River bridge design plans.
- Prepared contract plans for the installation of pipe culverts at 5 existing bridges along SR 70 in St. Lucie County.
- Prepared contract plans for repairs to the flat tread plate support at the Flagler Memorial Bridge in Palm Beach County.
- Prepared contract plans for replacement of the existing generator for the US 1 tunnel in Fort Lauderdale.
- Prepared technical specifications for bascule span bridge balancing after rehabilitation for the Oakland Park bascule bridge.
- Prepared permit package applications for five bridges.
- Completed a line of sight survey on all state-owned movable bridges within the District. Prepared contract plans for recommended improvements.
- Prepared design for the relocation of limit switches at the Sheridan Street bascule bridge.
- Prepared contract plans for the fender repair and navigational lights installation at the I-95 bridges over the Dania Cut-Off Canal in Broward County.
- Performed a condition inspection and post-repair inspection for the CSX bascule bridge over the North Fork of the New River in Broward County.
- Evaluated the paint system for the bridges of the I-95/I-595 interchange and SR 84 over I-95.

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	TranSystems	Fort Lauderdale, FL	Prime consultant

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

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
Commercial Boulevard Bridge Rehabilitation Fort Lauderdale, FL	PROFESSIONAL SERVICES 2001	CONSTRUCTION (if Applicable) 2001

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida DOT District 4	John Danielsen, P.E.	954.777.4644

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

TranSystems performed the in-depth inspection and rehabilitation design of a double leaf bascule bridge over the Intracoastal Waterway. The bridge consists of prestressed concrete beam approach spans and a double leaf Hopkins Trunnion bascule span. Total bridge length is 107m (350 ft.), including the 33m (109 ft.) bascule span.

Structural work included replacement of the bascule open grid deck and stringers, slope repairs, bulkhead repairs, crack injection, spall repairs, approach span deck joint replacement, replacement of neoprene bearing pads, fender system replacement, and architectural enhancements to the control house. The new bascule span stringer arrangement was designed to omit the fatigue sensitive details created by welding of the steel grating to the fracture critical main girders. The fender system replacement included the use of recycled plastic lumber and prestressed concrete piles. These replaced treated timber piles and wales.

Mechanical repairs included the replacement of the Hopkins frame pins with spherical bearings and replacement of the span lock system.

Electrical repairs included the complete upgrading of the control system, replacement of the navigation lights, and the installation of architectural lighting.

Architectural improvements included the renovation of the existing control house to accommodate the new control system and essential tender facilities. During the construction, all construction engineering and inspection services were provided for the department, at their request.

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	TranSystems	Fort Lauderdale, FL	Prime consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: 7

21. TITLE AND LOCATION *(City and State)*
Emergency Hurricane Damage Assessment
Broward, Palm Beach and Martin Counties, FL

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
Florida DOT - District 4	John Danielsen, P.E.	954.777.4644

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

As part of this emergency contract TranSystems was responsible for the design of twenty-seven (27) sign structures to replace signs damaged by Hurricane Wilma, as well as the replacement design of two (2) high mast light poles and repair of mast arm assemblies. The work included site visits, determining soil boring locations, design calculations, contract plans preparation and post design services for the construction of the new sign structures.

TranSystems was also responsible for the damage assessment of over 20,000 light poles and hands-on structural assessment of more than 600 overhead highway signs and 100 bridges in Broward, Palm Beach and Martin counties.

Also as part of this contract TranSystems was responsible for the repair design of sign structures damaged by Hurricane Katrina in Broward County.

The repaired sign structures included cantilever signs mounted on bridge bent caps. The repair design included sign structure columns that are connected to the bent caps by adding new base plates and new anchor bolts. One of these was a DMS structure.

a.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
	TranSystems	Fort Lauderdale, FL	Prime consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: 8

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
I-95/Glades Rd. PD&E Palm Beach, FL	2011	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida DOT - District 4	Pat Glass, P.E.	954.777.4681

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

Traffic on I-95 between Glades Road and Linton Blvd. in Palm Beach County, FL is often congested. In addition to less than optimum conditions on the interstate, the access between I-95 and Florida Atlantic University (FAU) is often slow moving, resulting in backups along side streets. The Florida Department of Transportation (FDOT) determined that it needed to evaluate options for improving traffic capacity, and retained TranSystems for a Project Development & Environment (PD&E) study. The team is tasked with evaluating all existing conditions and with developing recommendations to help FDOT meet its goal of improving traffic conditions for the traveling public.

The TranSystems team will thoroughly analyze all conditions within the 6.5-mi study area. Current and projected future traffic counts on the interstate and the location of roadways and their conditions adjacent to I-95 will be thoroughly evaluated.

Initial recommendations call for widening I-95 in the project area from eight to 10 lanes, including the continuation of the two existing High Occupancy Vehicle (HOV) lanes and the addition of two auxiliary lanes, which will be lanes 11 and 12. The new 12-lane section would accommodate current requirements as well as future traffic volumes based on FDOT projections.

In addition, the team will evaluate the potential construction of a new interchange between Spanish River Boulevard and Yamato Road to improve traffic conditions near FAU. TranSystems will produce a conceptual design and projected costs to construct the interchange. Drainage improvements and right-of-way acquisition for the project are also included in the PD&E study.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	TranSystems	Fort Lauderdale, FL	Prime

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)*
SunRail Commuter Rail Transit Project
Central Florida

22. YEAR COMPLETED

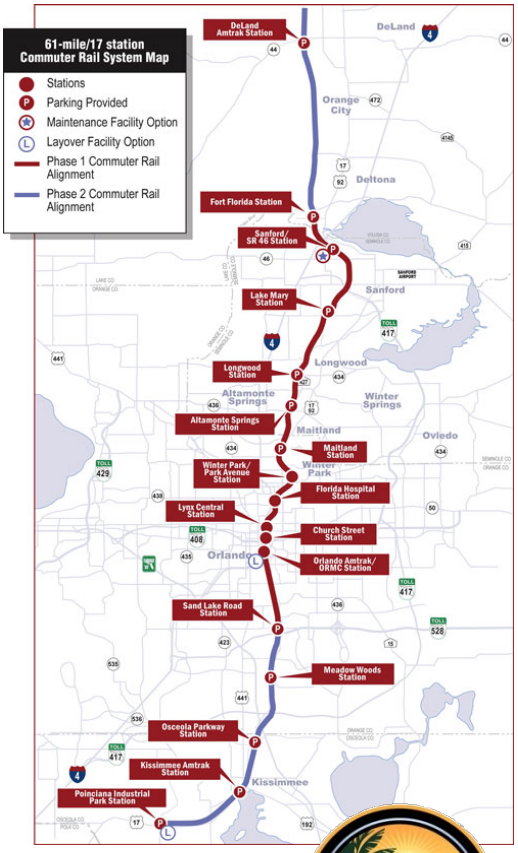
PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
Ongoing - 2014	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida DOT-District 5	Todd Hamerle	386.943.5707

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

The Florida Department of Transportation, in cooperation with the federal government and local officials in Orange, Seminole, Volusia and Osceola counties and the City of Orlando, is advancing SunRail, a commuter rail transit project that will run along a 61-mile stretch of existing rail freight tracks in the four-county area.



TranSystems was selected as part of the Joint Venture Design/Build team of Archer Western and Railworks for the design and construction of Phase I of the SunRail project at a cost of $168 Million.

Phase 1 is 31-miles and will connect DeBary to Sand Lake Road in Orange County. The corridor will provide a higher speed transportation option for commuters traveling from as far as Daytona Beach on the northern end and from Polk County on the southern end. The train would provide at least five (5) trips during "peak" morning (5:30 a.m.-8:30 a.m.) and afternoon (3:30 p.m.-6:30 p.m.) rush hours. It would operate on a 30-minute frequency during those peak hours and a two-hour frequency during non-peak hours. Phase II will serve five (5) additional stations, north to DeLand and south to Poinciana.

TranSystems' role in the project includes design and construction assistance for:

- Mainline, maintenance, and storage yard tracks, including embankment, culverts, and associated drainage
- Vehicle maintenance and storage facility site, including buildings, roadways, parking lots, drainage, and site design
- Pond design and permitting
- Operations control center building and vehicle storage and inspection building, including permitting
- Twelve (12) station platforms
- Bridge over the St. John's River
- Crash walls and retaining walls

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	TranSystems	Orlando and Jacksonville, FL	Subconsultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: 10

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if Applicable)
I-95 PDER Boca Raton, FL	2008	

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida DOT - District 4	Pat Glass, P.E.	954.777.4681

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

The Florida Department of Transportation (FDOT) has initiated a Project Development and Environment (PD&E) Study for SR 9 (I-95) in Southern Palm Beach County which also includes the preparation of a System Interchange Justification Report (SIJR) for a proposed new interchange with I-95. The location of the new proposed I-95 interchange is between Spanish River Boulevard (NW 40th Street) and Yamato Road (SR 794) and is referred to as the "Airport Road/FAU" interchange for this PD&E Study. The limits for this I-95 PD&E Study are from south of Glades Road (SR 808) (MP 1.65) to south of Linton Boulevard (MP 8.10). In addition to evaluating roadway and safety improvements for I-95, the project also includes improvements for Glades Road from Butts Road (MP 4.625) to just east of NW 13th Street (MP 6.683).

The PD&E Phase contract has been extended to August 2010 with the anticipation that the Public Hearing and LDCA will be in late 2009. Currently, the project documents have been through two review processes and are ready for Public Hearing Display. Traffic analysis of Spanish River Boulevard was added to the contract due to the City of Boca's concern of future traffic possibly exceeding Spanish River Boulevard's capacity due to the proposed new interchange.

The probable engineering costs for implementing the entire project is $29,500,000. The construction cost is estimated at $150,000,000 with right-of-way acquisition estimated to be $8,700,000. The sum of these costs brings the total project cost to approximately $188,200,000. However, there is currently no funding for construction. Florida Atlantic University has spoken about possibly capturing economic stimulus funds in order to help build the new interchange at least partially if not fully.

TranSystems is the prime consultant for the project and will prepare a PDER as an additional service for this phase of the project.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	TranSystems	Fort Lauderdale, FL	Prime

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
Steven A. Shaup, PE	Project Manager	X	X	X	X	X	X	X			
G. Alan Klevens, PE	Quality Assurance Engineer	X	X	X	X	X	X	X			X
Jian Huang, PhD, PE	Structural Design/ Analysis	X	X	X	X	X	X	X			
Serge Stiven, PE	Structural Design/ Analysis	X	X	X	X	X	X	X			
Natalie Rodriguez, PE, CBI	Structural Design/ Analysis		X	X	X	X		X			
Eric Reid, PE	Structural Design/ Analysis		X		X	X		X			
Bradley Kopping, PE	Mechanical Design					X					
Todd Dunavant, PE	Architectural Design					X					
Ian Biava, PE	Highway Design/ Signing/ Pavement Marking/ Signalization										
Mark Own, PE	Highway Design/ Signing/ Pavement Marking/ Signalization									X	
Eric Wooley, PE	Highway Design/ Signing/ Pavement Marking/ Signalization									X	
John Scarlatos	Highway Design/ Signing/ Pavement Marking/ Signalization/ Planning/ Public Involvement								X	X	X
Jeffrey Flanders, PE	Electrical Design										

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	SR804 / Ocean Avenue over the ICW, Bascule Bridge Replacement, Boynton Beach/Ocean Ridge, Palm Beach County, FL	6	Commercial Boulevard Bridge Rehabilitation Fort Lauderdale, FL
2	Districtwide Miscellaneous Bridge Design – Movable Various Counties, FL	7	Emergency Hurricane Damage Assessment Broward, Palm Beach and Martin Counties, FL
3	Districtwide Miscellaneous Bridge Design Various Counties, FL	8	I-95/Glades Rd. PD&E Palm Beach, FL
4	Districtwide Structures Repair / Rehabilitation Plans Preparation, Miami-Dade and Monroe Counties, FL	9	SunRail Commuter Rail Transit Project Central Florida
5	Districtwide Structural Design and Emergency Response and CEI Services, Various Counties, FL	10	I-95 PDER Boca Raton, FL

H. ADDITIONAL INFORMATION

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

TranSystems is uniquely focused on providing a single-source for integrated transportation solutions to both public and private-sector clients. TranSystems is comprised of approximately 900 professionals in 38 offices throughout the US—professionals who are committed to providing clients in all modes of transportation architecture, engineering, planning, real estate, security, and management consulting services.

We believe no industry impacts the quality of everyday life, and the success of business, more than transportation. The way we see it, bridges, highways, ships, warehouses, hangars, and ports are more than concrete and steel. We envision them as a living entity; a vast circulatory system designed not only to be utilized, but also to inspire and energize the people it serves. No other transportation company masters the smallest details, and envisions the big picture, better than TranSystems. Our ability to identify and execute solutions across strategic, design, technical, and operational issues is unmatched. When it comes to moving people and products from here to there, safely and securely, we do it best.

Project Management Philosophy

TranSystems' project management philosophy is significant to completing your project on-time and within budget. A key project manager serves as your primary contact during the entire process. Each project leader is supported by a specialized team solely dedicated to specific service areas to consistently provide high-quality service excellence.

Every project manager has access to technical procedures, design capabilities, working papers and the experience of our entire firm by means of a wide-area network. Computer files and information are immediately available through electronic resources.

To monitor and track on-going work, TranSystems uses management software that generates project costs and on-time status reports. In fact, many of our projects are completed significantly ahead of schedule to satisfy the needs of our clients.

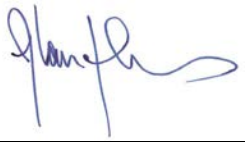
Professional Service Capabilities

TranSystems Corporation has the extensive experience and knowledge to meet our client's needs within today's challenging environment. With a unique focus on being the single source for integrated transportation solutions, TranSystems provides complete beginning-to-end service. These are some of the services we can perform to accomplish your project.

- Surveying
- Environmental Documentation & Permitting
- Public Involvement
- Traffic Engineering & Signed Design
- Roadway Widenings & Intersection Improvements
- Roadway Assessments & Rehabilitation
- Bridge Rehabilitation and/or Replacements
- Bridge Inspection
- Stormwater Management Planning & Drainage Improvements
- Right of Way Acquisition
- Utility Coordination
- Construction Administration, Engineering & Inspection

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE	32. DATE
	February 24, 2014

3. NAME AND TITLE

Alan Klevens, PE, Senior Vice President

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: 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: TranSystems	3. YEAR ESTABLISHED: 2005
	4. DUNS NUMBER: 61-638-5048
2b. STREET: 2400 E. Commercial Boulevard, Suite 1000	5. OWNERSHIP
	a. TYPE: Corporation
2c. CITY: Fort Lauderdale; 2d. STATE: FL; 2e. ZIP CODE: 33308	b. SMALL BUSINESS STATUS: No
6a. POINT OF CONTACT NAME AND TITLE: Alan Klevens, Principal, Senior Vice President	7. NAME OF FIRM *(If block 2a is a branch office)*: TranSystems
6b. TELEPHONE NUMBER: 954.653.4700; 6c. E-MAIL ADDRESS: gaklevens@transystems.com	
8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED; 8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

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

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
02	Administrative	142	2	H07	Highways; Streets; Airfield Paving; Parking	5
08	CADD Technician	138	4	T03	Traffic & Transportation Engineering	7
12	Civil Engineers	184	2			
15	Construction Inspector	39	5			
21	Electrical Engineers	10	1			
42	Mechanical Engineers	20	11			
54	Security Specialist	5	0			
57	Structural Engineers	156	8			
60	Transportation Engineers	48	1			
	Other Employees	178	1			
	Total	920	25			

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

(Insert revenue index number shown at right)

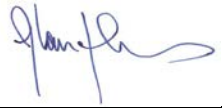
a. Federal Work	1
b. Non-Federal Work	7
c. Total Work	7

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 24, 2014

c. NAME AND TITLE: Alan Klevens, Principal, Senior Vice President

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: 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: TranSystems	3. YEAR ESTABLISHED: 2001
	5. DUNS NUMBER: 00-993-3255
2b. STREET: 101 Southhall Lane, Suite 355	5. OWNERSHIP
	a. TYPE: Corporation
2c. CITY: Maitland / 2d. STATE: FL / 2e. ZIP CODE: 32751	b. SMALL BUSINESS STATUS: No
6a. POINT OF CONTACT NAME AND TITLE: Alan Klevens, Principal, Senior Vice President	7. NAME OF FIRM *(If block 2a is a branch office)*: TranSystems
6b. TELEPHONE NUMBER: 954.653.4700 / 6c. E-MAIL ADDRESS: gaklevens@transystems.com	
8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED / 8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH
02	Administrative	142	5
08	CADD Technician	138	5
12	Civil Engineers	184	8
37	Interior Designers	8	0
47	Planners: Urban/Regional	24	7
48	Project Manager	4	1
57	Structural Engineers	156	5
	Other Employees	264	1
	Total	920	32

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)*
B01	Barracks; Dormitories	4
C10	Commercial Building; (low rise); Shopping	1
E02	Educational Facilities; Classrooms	1
E04	Electronics	1
F02	Field Houses; Gymnasiums; Stadiums	1
O01	Office Building; Industrial Parks	2
P12	Power Generation, Transmission,	1
R04	Recreational Facilities (Parks; Marinas; etc.)	1
W01	Warehouses & Depots	1

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

(Insert revenue index number shown at right)

a. Federal Work	6
b. Non-Federal Work	1
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

c. DATE: February 24, 2014

c. NAME AND TITLE: Alan Klevens, Principal, Senior Vice President

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: 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: TranSystems	3. YEAR ESTABLISHED: 1998
2b. STREET: 4500 Salisbury Road, Suite 440	6. DUNS NUMBER: 06-189-7674
2c. CITY: Jacksonville	2d. STATE: FL
2e. ZIP CODE: 32216	5. OWNERSHIP
6a. POINT OF CONTACT NAME AND TITLE: Alan Klevens, Principal, Senior Vice President	a. TYPE: Corporation
6b. TELEPHONE NUMBER: 954.653.4700	6c. E-MAIL ADDRESS: gaklevens@transystems.com
	b. SMALL BUSINESS STATUS: No
	7. NAME OF FIRM *(If block 2a is a branch office)*: TranSystems
8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED / 8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

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

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
02	Administrative	142	4	B02	Bridges	4
06	Architects	45	2	C15	Construction Management	5
08	CADD Technician	138	6	C18	Cost Estimating; Cost Engineering and	1
12	Civil Engineers	184	4	E09	Environmental Impact Studies, Assessments	1
73	Construction Engineers	10	1	F01	Fallout Shelters; Blast-Resistant Design	1
15	Construction Inspector	39	0	H07	Highways; Streets; Airfield Paving; Parking	3
66	Maritime Planner	2	1	H11	Housing (Residential, Multifamily,	1
69	Railroad Engineer / Planner	8	2	I06	Irrigation; Drainage	1
57	Structural Engineers	156	2	L06	Lighting (Exteriors; Street; Memorials;	1
				M05	Military Design Standards	1
				O01	Office Building; Industrial Parks	1
				P06	Planning (Site, Installation and Project)	1
				R03	Railroad and Rapid Transit	2
				R06	Rehabilitation (Buildings; Structures;	1
				S04	Sewage Collection, Treatment & Disposal	1
				S09	Structural Design; Special Structures	2
				S10	Surveying; Platting; Mapping; Flood Plain	2
				S13	Stormwater Handling & Facilities	2
				W03	Water Supply; Treatment and Distribution	1
	Other Employees	196	0			
	Total	920	28			

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

(Insert revenue index number shown at right)

a. Federal Work	4
b. Non-Federal Work	6
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

d. DATE: February 24, 2014

c. NAME AND TITLE: Alan Klevens, Principal, Senior Vice President

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: 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: TranSystems Architect & Engineer, P.C.

3. YEAR ESTABLISHED: 1998

7. DUNS NUMBER: 82-589-5118

2b. STREET: Empire State Building, 350 Fifth Avenue, Suite 924

5. OWNERSHIP

a. TYPE: Corporation

2c. CITY: New York

2d. STATE: NY

2e. ZIP CODE: 10118

b. SMALL BUSINESS STATUS: No

6a. POINT OF CONTACT NAME AND TITLE: Alan Klevens, Principal, Senior Vice President

7. NAME OF FIRM *(If block 2a is a branch office)*: TranSystems

6b. TELEPHONE NUMBER: 954.653.4700

6c. E-MAIL ADDRESS: gaklevens@transystems.com

8a. FORMER FIRM NAME(S) *(If any)*: Lichtenstein

8b. YR. ESTABLISHED: 1963

8c. DUNS NUMBER: 06-432219

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	(2) BRANCH
02	Administrative	142	3
08	CADD Technician	138	3
12	Civil Engineers	184	2
15	Construction Inspector	39	0
21	Electrical Engineers	10	0
27	Foundation/Geotechnial Eng	0	0
42	Mechanical Engineers	20	1
79	Quality Engineer	0	0
53	Scheduler	0	0
57	Structural Engineers	156	7
60	Transportation Engineers	48	1
74	Highway Engineers	6	0
77	Historical Preservation	1	0
32	Hydraulic Engineer	0	0
34	Hydrologists	1	0
47	Planners: Urban/Regional	24	0
69	Railroad Engineer / Planner	8	0
	Other Employees	143	0
	Total	920	17

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)*
B02	Bridges	7
C08	Codes; Standards; Ordinances	1
C15	Construction Management	1
D01	Dams (Concrete; Arch)	1
D02	Dams (Earth; Rock); Dikes; Levees	1
E09	Environmental Impact Studies, Assessments	2
H01	Harbors; Jetties; Piers; Ship Terminal	1
H07	Highways; Streets; Airfield Paving; Parking	4
H08	Historical Preservation	2
R03	Railroad and Rapid Transit	4
R06	Rehabilitation (Buildings; Structures;	1
S03	Seismic Design & Studies	4
S05	Soils & Geologic Studies; Foundations	3
	Sustainable Design	1
T03	Traffic & Transportation Engineering	3
T06	Tunnels & Subways	3

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	7
c. Total Work	7

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

e. DATE: February 24, 2014

c. NAME AND TITLE: Alan Klevens, Principal, Senior Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*:

PART II - GENERAL QUALIFICATIONS

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

2a. FIRM (OR BRANCH OFFICE) NAME: Marlin Engineering, Inc.		3. YEAR ESTABLISHED: 1991	4. DUNS NUMBER: 800046054
2b. STREET: 2191 NW 97th Ave		5. OWNERSHIP	
2c. CITY: Doral	2d. STATE: FL	2e. ZIP CODE: 33172	a. TYPE: Corporation
6a. POINT OF CONTACT NAME AND TITLE: Ramon Soria, P.E., President			b. SMALL BUSINESS STATUS: CBE/DBE/MBE
6b. TELEPHONE NUMBER: 305.477.7575	6c. E-MAIL ADDRESS: rsoria@marlinengineering.com		7. NAME OF FIRM *(If block 2a is a branch office)*
8a. FORMER FIRM NAME(S) *(If any)*: N/A		8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative/ Clerical	10	
08	CADD Technician	1	
12	Civil Engineer	1	
15	Construction Inspector	2	
29	GIS Specialist	1	
38	Land Surveyor	7	
58	Technician Analyst	10	
52	Transportation Engineer	11	
	Bridge Inspector/ Diver	6	
	Railroad Support	3	
47	Planner: Urban Regional	1	
24	Environmental Scientist	1	
	Other Employees		
	Total	54	

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)*
H07	Civil Eng. Services- Cutler Bay	3
H07	City of Doral General Consultant	2
P05	DW SIS Consultant	5
P05	DW GPC F.4	5
P05	Transportation Statistics GEC	6
S09	DW Overhead Sign Inspections- F4	5
R03	DW Intermodal Consultant F.4	5
P05	MPO General Planning Consultant	4
P05	DW Statistics F.4	5
S09	Structures Inspection MDX	5
H07	SR811 Design Services F.4	4
L02	Land Surveying Services	1
P05	DW RCI Data Collection F.6	5
H07	SR710 Design Services	5
H07	Miscellaneous Civil Eng. Services	3
P05	DW GPC Systems Planning F.4	5
H07	SR5 Design Services- H&H	1
H07	SR809 Design Services- H&H	1
H07	Transp. Planning & Eng Services	4
H07	Professional Serv Traffic & Transp.	4
H07	Continuing Proff. Eng Services	4
R03	SFRC Consultant FDOT- 4	7

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

(Insert revenue index number shown at right)

a. Federal Work	2
b. Non-Federal Work	8
c. Total Work	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,00 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

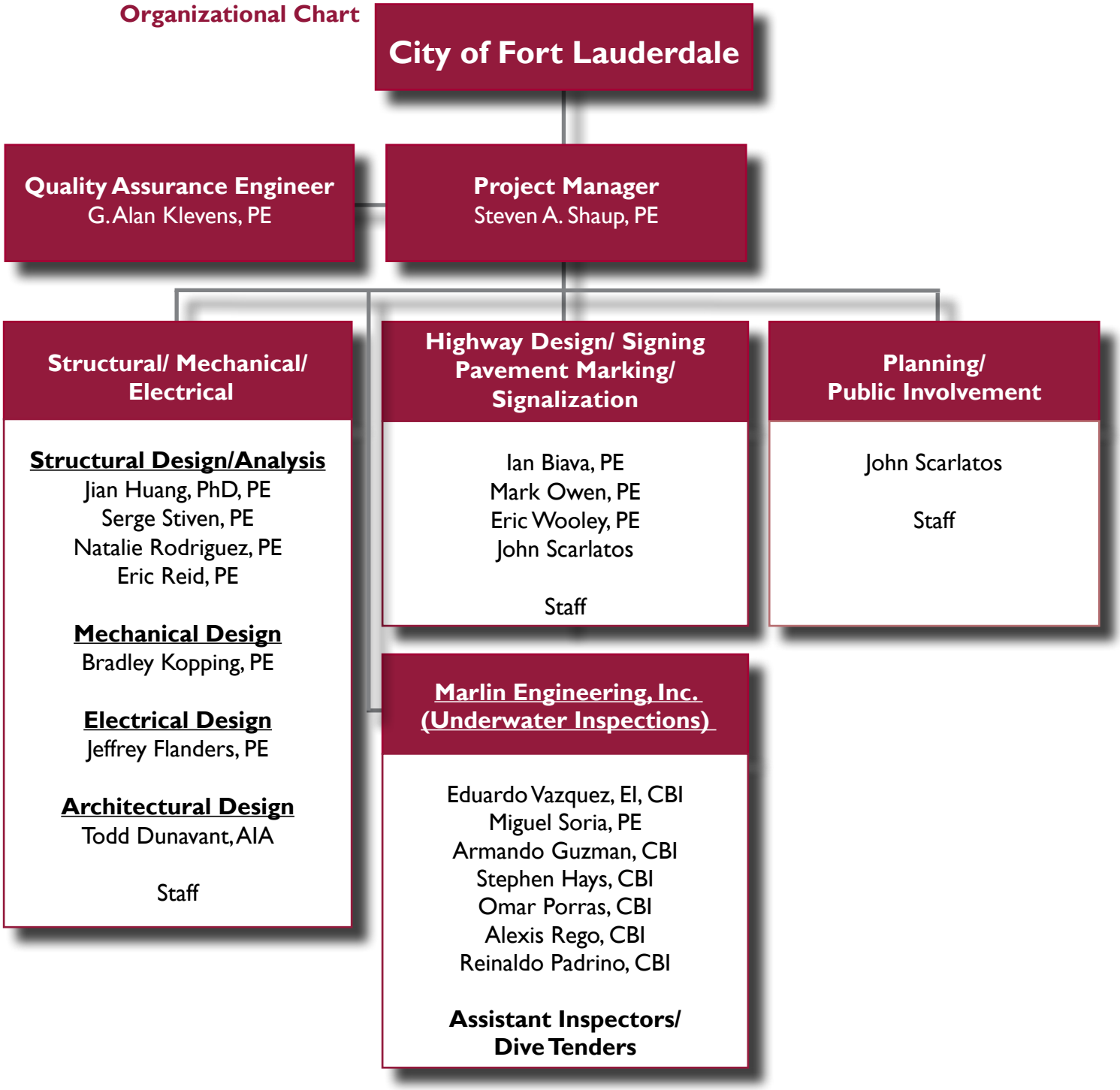
The foregoing is a statement of facts.

a. SIGNATURE:

b. DATE: 11/19/2013

c. NAME AND TITLE: Ramon Soria, P.E., President

Organizational Chart



The TranSystems team has the experience and expertise required by the City of Fort Lauderdale for this project. Resumes for the project team can be found on the following pages.

Steven A. Shaup, PE
Project Manager

Mr. Shaup is experienced in the new design, rehabilitation, analysis and inspection of all types of fixed and movable bridges. He has served as a project manager, project engineer, structural engineer or senior inspector for numerous inspection, load rating, rehabilitation, new design and miscellaneous services projects, many including complex and movable bridges. Mr. Shaup has also been a participant in the firm's forensic engineering projects. He has authored papers and made presentations at conferences on several bridge topics.

Registrations
Professional Engineer (Civil): FL, 1997
Professional Engineer (Civil): GA, 2009
Professional Engineer (Civil): MS, 2010
Professional Engineer (Civil): TX, 2012

Florida Advanced Work Zone Traffic Control

Education
B.S.C.E., Structural Engineering
University of California, Irvine, 1992
M.S.E., Structural Engineering
University of California, Irvine, 1993

Affiliations & Memberships
American Institute of Steel Construction
American Society of Civil Engineers
Heavy Movable Structures

Years of Experience
22

Years with Firm
20

On-Call Engineering Services, Volusia County, Florida Mr. Shaup served as Project Manager and Project Engineer for this on-call bridge engineering services contract for the County of Volusia. Task assignments included an in-depth inspection, recommendations and cost estimates report for three county owned double leaf bascule bridges to keep the structures open and operational for 20 years; a load rating of approach span tee beams at the Orange Avenue bridge; preparation of design plans and specifications to replace reinforced concrete bearing pedestals which support the bascule leaf rack pinions and adjacent machinery bearings with steel weldments; miscellaneous repairs at the Orange Avenue bridge, including flanking span deck replacement; and span locks replacement at all three bridges, including installation of access platforms. Contact: Mr. Tom Morrissey, P.E. (904) 257-6067.

Ortega River Bridge Rehabilitation, Jacksonville, Florida DOT District 2
Mr. Shaup was Project Manager for the rehabilitation of the Ortega River Bridge, including the replacement of numerous components of the mechanical and electrical systems, including replacement of the control console and control system with a control rail to provide more space in the existing control house, replacement of the existing drives, a new relay-based control system, upgrading the span drive and span lock machinery and replacement of span support machinery components as needed to meet all AASHTO requirements and eliminate failure of pintles, replacement of the existing CCTV system, and replacement of the existing traffic warning gates and signals. In order to address the problem of potentially frozen bearing areas at the approach spans, laminated neoprene elastomeric bearing pads were installed at the approach spans. Mr. Shaup was responsible for preparation of all plans and specifications for the work.

Asset Management for Movable Bridges, Florida DOT District 6 – Florida Drawbridge, Inc. Asset Manager TranSystems served as a sub-consultant for the asset management of FDOT District 6 drawbridges, responsible for the inspection and on-call engineering for 15 bascule bridges with fixed approach spans. Routine inspections, including underwater inspection, are performed on a biennial basis and inspections of the fracture critical elements are performed on an annual basis. Mr. Shaup served as Project

Manager and was responsible for all TranSystems activities, including signing and sealing the final inspection reports. Contact: Ms. Laura Porter, Florida Drawbridge (954) 788-0969.

Districtwide Miscellaneous Bridge Design Services, Florida DOT District 2
Mr. Shaup served as Project Manager for this miscellaneous task order-based contract. Task Order #1 included updating a previously completed analysis of deteriorated steel H-piles at SR-312 eastbound bridge. Task Order #2 included field testing of the Dames Point cable stayed bridge cables to determine cable forces. Task Orders #3, #5, #6, #7, #8 and #9 included inspection of the thixotropic grout used to fill post tensioning cable ducts for 7 segmental concrete bridges. Task Order #4 included preparation of a 3-D model of the Dames Point bridge and calibrating the model based on as-built documentation and survey information taken periodically in the 20 years the bridge has been in service. Other work orders have included phase 2 and 3 scour analyses at two bridges, a constructability review for underwater repairs, load rating of a bridge substructure due to section losses on steel H-piles, and a feasibility study for repair or replacement of a prestressed concrete box girder bridge. Contact: Ms. Melissa Morgan, (386) 961-7060.

Districtwide Miscellaneous Bridge Design, Florida DOT District 6
Mr. Shaup was a Senior Structural Engineer for two cycles of this project that included reviews of bridge design projects at various phase submittals, design of temporary retaining walls along an exit ramp at SR 112, preparation of construction cost estimates for repairs to three movable bridges in Miami-Dade County, and in-office support for District staff. Mr. Shaup was a lead review for several of the submittals and worked at the District office as requested by the District. Contact: Jorge Rodriguez, P.E. (305) 499-2485.

Little Duck Key Bridge, Florida DOT District 6
Mr. Shaup served as Project Engineer for the design of an impressed current cathodic protection system for the reinforced concrete pier columns of a 12-span bridge carrying US-1 in the lower Florida Keys. Work included extensive analysis during design to maintain traffic while column jackets were installed. Contact: Yaroslav Concepcion, E.I. (305) 470-5421.

SR 401 Bridges over Barge Canal, Brevard County, Florida DOT District 5
Mr. Shaup was a Senior Structural Engineer/Team Leader for the in-depth inspection, load rating, and Pontis-style reporting for three parallel double leaf bascule bridges with steel stringer, reinforced concrete and prestressed concrete approach spans crossing the Barge Canal at Port Canaveral. Additional work included preparation of an engineering report detailing the inspection findings and recommended repairs to keep the bridge fully functional for a 20-year period, and preparation of rehabilitation plans. Mr. Shaup was responsible for the inspection, reporting and load rating of the bridges, as well as coordinating plans and specifications for the rehabilitation. Contact: Seta Koroitamudu, P.E. (386) 740-3426.

Florida's Turnpike South System Inspections, Florida Turnpike Enterprise
Mr. Shaup served as an assistant team leader, Team Leader, and Senior Structural Engineer for six consecutive cycles of this biennial, safety inspection of over 300 bridges, 240 overhead sign supports, and 200 high mast light towers. The project included all Turnpike owned bridges, overhead sign structures, and weathering steel high mast light towers from the southernmost terminus (mile post 0.0) of the Turnpike to mile post 190, and the Sawgrass Expressway. Mr. Shaup was a team leader over three cycles of the project and performed internal QA inspections on later cycles of inspection. Contact: Mr. Aran Lessard, P.E. (954) 934-1229.

G. Alan Klevens, PE
Principal, Senior Vice President

Alan is experienced in bridge inspection; rating and rehabilitation of existing bridges; and the design of new bridges. He is a Principal of the firm and has been a team leader, project engineer or project manager on numerous bridge inspection, rating, rehabilitation, and on-call engineering projects, many of which involved a large number and variety of structures, including complex and difficult access structures. He is responsible for assignment, supervision and coordination of staff engineers and technicians. Alan developed computer programs for bridge analysis, rating, design and optimization; and has presented technical papers on this and movable bridge design and rehabilitation at professional conferences.

Alan had final quality assurance responsibility for all work produced in TranSystems' south Florida offices since 1997.

Registrations
Professional Engineer (Civil): FL, 1993

Florida Advanced Work Zone Traffic Control

Education
B.S.C.E., Civil Engineering
Northeastern University, 1984
M.S.C.E., Civil Engineering
Northeastern University, 1989

Affiliations & Memberships
American Institute of Steel Construction
American Railway Engineering & Maintenance of Way Association (AREMA)
American Society of Civil Engineers
American Society of Highway Engineers

Years of Experience
30

Years with Firm
26

Miscellaneous Districtwide Bridge Design, Florida DOT District 2
Quality assurance officer for the several projects. Work included providing plans, specifications and related maintenance of traffic details for various paint projects, fender system replacements, pile jacket projects, structural steel repairs, pile replacements, saddle bents, bridge deck replacement, joint repairs, and impact damage repairs. In addition, miscellaneous engineering services for movable bridges, including plans, specifications and related maintenance of traffic details for structural steel repairs, steel grating replacement, span lock replacement, buffer cylinder replacement and traffic signal replacement were completed. Contact: Mr. George Carpenter, P.E. (904) 360-5575.

SR 401 Bridges over Barge Canal, Florida DOT District 5 Mr. Klevens was the Project Manager for the in-depth inspection and Pontis-style reporting for three parallel double leaf bascule bridges with steel stringer, and prestressed concrete approach spans crossing the Barge Canal at Port Canaveral. Additional work included preparation of an engineering report detailing the inspection findings and recommended repairs to keep the bridge fully functional for a 20-year period, and preparation of rehabilitation plans including bascule span jacking, span lock replacement, trunnion machining and eccentric replacement.

Bridge of Lions Rehabilitation, St. Augustine, Florida DOT District 2
Mr. Klevens was Project Manager for the inspection, testing, and rehabilitation design of the existing bascule piers as well as the structural, mechanical, and electrical design of new bascule leafs and the design of the movable span and piers of the temporary movable bridge to be used during construction of the rehabilitation of the Bridge of Lions. TranSystems was also responsible for the historic evaluation of the existing bridge and worked closely with the Department and SHPO to manage the determination of no adverse effect on this historic property.

Ocean Avenue (SR 804) over the Intracoastal Waterway, Florida DOT District 4 Mr. Klevens was the QA Officer for the design of this new double leaf bascule bridge with prestressed concrete inverted tee beam approach spans. This project represented the first use of inverted-tee beams in District 4. The Department incorporated several of the details designed for the inverted tee-beams in creating standard drawings. The bridge design evolved from extensive public involvement and mitigation in the form of architectural detailing, public amenities and innovative design concepts. The bridge received a 2001 National Steel Bridge Alliance Merit Award.

Commercial Blvd. (SR 870) & Hillsboro Blvd. (SR 810) over the ICWW, Florida DOT District 4 Mr. Klevens was the Project Manager for the rehabilitation of two double-leaf steel bascule span bridges with prestressed concrete girder and steel girder approach spans. Work included structural, mechanical and electrical rehabilitation, as well as architectural treatments to the control house, including addition of a second level. He was also responsible for design calculations and preparation of contract documents for the structural components, including bascule span deck and stringer replacement. Lichtenstein also performed CEI services for the Department.

Hillsboro Inlet (SR A1A over Intracoastal Waterway), Broward County, Florida DOT District 4 Mr. Klevens was the Project Manager for the inspection, analysis and rehabilitation of a single-leaf bascule bridge with concrete approach spans. The structural work included replacement of bulkhead caps, repair of concrete, replacement of fendering, upgrading the existing barriers, replacement of the joint system, replacement of bearings, jacking of the bascule span, and installation of catwalks and maintenance platforms. Electrical and mechanical work included replacement of emergency generator, brake system, limit switches, navigation lighting, operating system all open gearing and shafts, and motor couplings, span lock replacement, removal of buffer cylinders, and field machining of trunnions in place.

Districtwide On, Off, Toll and State Underwater Bridge Inspection, Florida DOT District 5 Mr. Klevens was Project Manager for the biennial inspection of 680 fixed bridges and 12 movable bridges for District 5. The contract included inspection of structures owned by local authorities and agencies, as well as toll bridges in the greater Orlando and the Port Canaveral area, and underwater inspection of state owned bridges in the District. Work also included load rating of 28 bridges and radiography testing at 2 bridges to determine reinforcing at structures for which no plans were available.

On-Call Structural Design and Emergency Response for FDOT District 4, Multiple Locations, FL Senior Structural Engineer on several assignments. Work orders included: Span Lock Replacement for five bascule bridges; I-95 over Blue Heron Boulevard hit fascia beam replacement; SR 700 over West Palm Beach Canal (Canal Point) bridge replacement; Design of temporary hydraulic cylinders and attachments for Atlantic Boulevard (SR 817) over Intracoastal Waterway; Design of jacking system for trunnion bearing replacement at Las Olas Boulevard over Intracoastal Waterway; Design of temporary hydraulic cylinders for Sunrise Boulevard (SR838) over Intracoastal Waterway. Contact: Mr. John Danielsen, P.E. (954) 777-4644.

Movable Bridge Inspections for Volusia County, Deland, FL
Project manager and quality assurance officer for the in-depth inspection and evaluation of 3 movable bridges over the ICWW in Volusia County. Report recommendations included short and long term repairs and life cycle cost estimates. Contact: Mr. Tom Morrissey, P.E. (904) 257-6067.

Jian Huang, PhD, PE
Senior Structural Engineer

Dr. Huang is experienced in the design and analysis of new, widening, and rehabilitating fixed and movable bridges and has extensive experience in the three-dimensional analysis of complex bridge structures such as steel box girder, segmental concrete box girder, arch and truss bridges. Dr. Huang is also experienced in the design and analysis of spread footing, pile, drilled shaft, and micropile foundations. Dr. Huang has completed the design of many and various retaining walls, overhead sign structures, mast arm structures, and high mast light poles. Dr. Huang has presented more than 30 papers in various professional journals and conferences such as Transportation Research Board (TRB) annual meeting, ASCE annual meeting, International Bridge Conference, HMS Biennial Symposium, National Movable Bridge Seminar, etc. He is a co-author of the engineering book entitled "Analysis of Box Girder and Truss Bridges". Currently, he is an invited peer reviewer for the ASCE Journal of Bridge Engineering.

Registrations
Professional Engineer (Civil): FL, 1995
Professional Engineer (Civil): TX, 2012

Education
B.S.C.E., Civil/Structural Engineering
Tongji University, Shanghai, 1982
M.S.C.E., Civil/Structural Engineering
Tongji University, Shanghai, 1984
Ph.D., Civil/Structural Engineering
Tongji University, Shanghai, 1988

Affiliations & Memberships
American Institute of Steel Construction
American Society of Civil Engineers
Heavy Movable Structures

Years of Experience
25

Years with Firm
17

Ortega River Bridge Rehabilitation, Jacksonville, Florida DOT District 2
Dr. Huang was the Senior Structural Engineer for the rehabilitation of the Ortega River Bridge, including jacking and installation of new neoprene pad bearings for approach span reinforced concrete T-Beams at approach piers and new mast arm for the movable bridge signals.

Bridge of Lions Rehabilitation, St. Augustine, Florida DOT District 2
Dr. Huang was the Senior Structural Engineer for the design of the new movable span superstructure and existing piers rehabilitation/strengthening. TranSystems accomplished the goal of rehabilitating the bridge in accordance with the "Secretary of the Interior Standards", while providing a 75 year design life, and obtaining a "No Adverse Effect" determination from the SHPO. TranSystems' responsibilities included inspection, testing, and rehabilitation of the existing bascule piers as well as the structural, mechanical, and electrical design of new bascule leaves. TranSystems was also responsible for the design of the temporary vertical lift span and lift piers. Dr. Huang was responsible for the structural design, detailing and load rating analysis.

Commercial Blvd. (SR 870) over the ICWW, Broward County, Florida DOT District 4
Dr. Huang was the Senior Structural Engineer for the rehabilitation of the double-leaf steel bascule span bridge with prestressed concrete girder approach spans. Work included structural, mechanical and electrical rehabilitation, as well as architectural treatments to the control house. He was also responsible for design calculations and preparation of contract documents for the structural components, including bascule span deck and stringer replacement. Dr. Huang was responsible for the rating analysis of the bridge. TranSystems also performed CEI services for the Department.

SR 105 over Sister's Creek, Duval County, Florida DOT District 2
Dr. Huang was the Senior Structural Engineer for the deck replacement and structural steel repairs on the two lane bascule bridge. The work also included miscellaneous repairs of the sidewalk support brackets and replacement of the sidewalk grating. Pedestrian access was maintained during construction. He was responsible for the structural analysis and design of the deck replacement, preparation of the structural plans, technical special provisions, and traffic control plans for two-stage construction.

Bascule Pier Stability Study of Sisters Creek Bridge, Florida DOT District 2
Dr. Huang was the Senior Structural Engineer for a structural evaluation of the bascule piers and recommended repairs for the Sisters Creek Bascule Bridge. The work included are to determine the stability of the existing bascule piers under the current conditions, assess the scour conditions at what point the bridge becomes unstable, and provide recommendations for the repairs and their estimated construction costs.

US 70 over Lake Hamilton Bridge, Hot Springs, Arkansas
Dr. Huang was the Senior Structural Engineer for the rehabilitation design of Arkansas Highway and Transportation Department Bridge No. 5872 carrying US 70 over Lake Hamilton near Hot Springs, Arkansas. The bridge, constructed in 1981, consists of 9 steel multi-girder spans with a total length of 1,410 feet. The Lake Hamilton Bridge carries 4 lanes of traffic with an out-to-out width of 67 feet. Dr. Huang completed design of concrete filled steel micropiles to strengthen or structurally replace the existing failing pier foundations and preparation of the Technical Special Provisions for the installation of the micropiles.

SR-401 over Barge Canal, Brevard County, Florida DOT District 5
TranSystems was responsible for the structural, mechanical and electrical rehabilitation of three 313'-9" long trunnion bascule bridges carrying SR-401 and ramps over the Port Canaveral Barge Canal. As part of this rehabilitation project, Dr. Huang was responsible for bascule span design work.

Florida's Turnpike, South System Inspection, Florida's Turnpike District
Dr. Huang was a Senior Structural Engineer for two cycles of this safety inspection program for 313 highway overpass bridges, 313 sign bridges and 171 High Mast Light Towers from the southern terminus of the Turnpike System to the midpoint at milepost 190, including the Sawgrass Expressway. This project included 75 Phase I Scour Evaluations, 3 Phase II Evaluations, 4 Phase III, and 1 Phase IV Scour Evaluations. He was responsible for the load rating analyses of 103 structures including prestressed concrete, steel, and flat slab bridges and culverts. Contact: Mike Werner, P.E. (954) 934-1208.

Districtwide On, Off, Toll and State Underwater Bridge Inspection, Florida DOT District 5
Dr. Huang was Senior Structural Engineer for the biennial inspection of 680 fixed bridges and 12 movable bridges for District 5. The contract included inspection of structures owned by local authorities, as well as toll bridges in the greater Orlando area and underwater inspection of state owned bridges in the District. Work also included load rating of 28 bridges and 2 with radiography testing to determine reinforcing at structures for which no plans were available. Contact: Julia Blackwelder, C.B.I. (386) 740-3454.

Serge J. Stiven, PE
Senior Structural Engineer

Mr. Stiven is experienced in the analysis, design, inspection, rating and rehabilitation of bridges and waterfront structures. He is a Senior Professional and Bridge Division Leader in the firm. He has served as a project manager, project engineer, and inspection team leader on bridge design, inspection, evaluation, rating, on call engineering projects and rehabilitation programs that covered numerous structures of all sizes and types. Mr. Stiven has been the lead structural designer on many of the firm's new bridge design and rehabilitation projects.

Registrations
Professional Engineer (Civil): FL, 1993
Professional Engineer (Civil): NJ, 1991

Education
B.S., Civil Engineering
Florida A&M University, 1985

M.S., Civil Engineering
Rutgers University, 1987

Years of Experience
28

Years with Firm
24

Miscellaneous Engineering Services, Broward County, FL
Mr. Stiven was Project Manager for consulting / advisory services for the construction of the Northeast Sixth Avenue bridge over the North Fork of the Middle River. This assignment included minor design / redesign, shop drawing review and resolution of field construction/plans interpretation questions.

Ocean Ave (SR 804) over the Intracoastal Waterway, Boynton Beach-Ocean Ridge, Florida DOT District 4 Mr. Stiven served as the Senior Structural Engineer for the design of a new double leaf bascule bridge with prestressed concrete inverted tee beam approach spans. This project represented the first use of inverted-tee beams in District 4. This project also included the use of geogrid reinforced backfill technology. Mr. Stiven was the lead designer for the bascule span thru-girder and the pedestrian Gazebo. The bridge received a 2001 National Steel Bridge Alliance Merit Award.

Districtwide Miscellaneous Bridge Repairs, Florida DOT District 6
Mr. Stiven was Project Manager for this five year on call contract. Repair tasks included deck repairs, steel and concrete beam repairs, painting, installation of cathodic protection, joint replacement and other work at numerous bridges throughout Miami and the Florida Keys.

SR A1A over Hillsboro Inlet Bascule Bridge, Florida DOT District 4
Mr. Stiven was a Senior Structural Engineer/Team Leader for the in-depth inspection of this single-leaf bascule bridge with prestressed concrete approach spans. He also performed the load rating analysis and the design of rehabilitation for this 329 ft. structure.

Commercial Blvd. (SR 870) over the ICWW, Florida DOT District 4
Mr. Stiven was a Senior Structural Engineer for the rehabilitation of the double-leaf steel bascule span bridge with prestressed concrete girder approach spans. Work included structural, mechanical and electrical rehabilitation, as well as architectural treatments to the control house. He was involved in the design calculations and preparation of contract documents for the structural components, including bascule span deck and stringer replacement. Mr. Huang was responsible for the rating analysis of the bridge.

Spanish River Bascule Bridge Rehabilitation Post Design Services, Florida DOT District 4
Mr. Stiven was a Senior Structural Engineer for the Post Design Services for the rehabilitation of the Spanish River Blvd. (SR 800) Bridge over the Intracoastal Waterway (Bridge Nos. 930150 & 930226). Work items include the replacement of existing control system, replacement of rotary drum speed controllers, replacement of motor control center, replacement of thrust brakes, rehabilitation of live load shoes and span locks, painting and coating of the bascule span, Class v finish coating on substructure and concrete railing system, rehabilitation of the tender house.

Bridge of Lions Rehabilitation, St. Augustine, Florida DOT District 2
Mr. Stiven was the Lead Designer for the design of the movable span and piers of the temporary movable bridge to be used during construction of the rehabilitation of the Bridge of Lions. TranSystems was also responsible for the historic evaluation of the existing bridge and worked closely with the department and SHPO to manage the effect on this property. Mr. Stiven has also served as Senior Designer in the design of the new movable span superstructure. Contact: Mr. Craig Teal, P.E. (386) 961-7703

Florida's Turnpike, South System Inspection, Florida's Turnpike District
Mr. Stiven was a Team Leader and Senior Engineer for two cycles of this safety inspection program for 306 highway overpass bridges, 233 sign bridges and 199 High Mast Lighting Towers from the southern terminus of the Turnpike System to the midpoint at milepost 190, including the Sawgrass Expressway. This project included 75 Phase I Scour Evaluations, 3 Phase II Evaluations, 4 Phase III, and 1 Phase IV Scour Evaluations.

Districtwide Structural Design and Emergency Response, Florida DOT District 4
Mr. Stiven was Project Manager for this miscellaneous task order based contract which included a total of thirteen work orders, including one bridge replacement. Other assigned task orders included span lock replacement at five bascule bridges, various hydraulic cylinder-related repairs at multiple bascule bridges, reviewed of bascule bridge rehabilitation contract documents, including electronic delivery, forensic investigation into the cause of the light pole arm failures and involvement with the District LRE task team.

Districtwide Structural Design and Emergency Response and CEI Services, FDOT, District 4
Mr. Stiven was a Senior Structural Engineer for this miscellaneous task order based contract and was responsible for multiple assignments which included: Preparation of the Technical Specifications for SR 5/US 1 Jupiter Federal Bridge over the ICWW in Palm Beach County (Bridge No. 930005), Designed Repair to H-Piles for Bridge Nos. 930016 and 930196 and New Substructure Load Rating for both Bridges, reviewed of I-95 over the South Fork New River Bridges design plans including the feasibility of design and quantities, preparation of Contract Plans for the Repair of the Flat Tread Plate Support at the SW corner of the West Bascule Pier of Bridge No. 930157.

Natalie M. Rodriguez, PE
Structural Engineer

Ms. Rodriguez is experienced in the rehabilitation and inspection of existing bridges. She has worked on the firm's on-call, emergency response and bridge rehabilitation assignments for the Florida Department of Transportation and other agencies.

Registrations
Professional Engineer (Civil): FL, 2010

Certified Bridge Inspector, FL/2005 (#0417)

Education
B.S., Civil Engineering
Florida International University, 2002

Affiliations & Memberships
American Society of Civil Engineers

Years of Experience
10

Years with Firm
10

Asset Management Movable and Fixed Bridges, FDOT District 4, Transfield Services – North America, Asset Manager
TranSystems is the sub-consultant to the Asset Maintenance Contractor for the FDOT District 4 Asset Management Contract responsible for the inspection and evaluation of thirty-seven bascule bridges with fixed approach spans and one tunnel. This involves the Structural, Mechanical, Electrical, and Underwater inspections. TranSystems is also on call for emergency inspections, post rehabilitation inspections, post repair inspections and miscellaneous design services. Ms. Rodriguez is a Team Leader on this project.

Florida's Turnpike, South System Inspection, Turnpike Enterprise
Ms. Rodriguez was a Team Leader for the 2009-2011, 2007-2009, 2005-2007 cycles of this safety inspection program for 313 highway overpass bridges, 313 sign bridges and 171 High Mast Lighting Towers from the southern terminus of the Turnpike System to the midpoint at milepost 190, including the Sawgrass Expressway. She also performed load rating analysis for over 100 bridges.

Asset Management Movable Bridges, FDOT District 5, Transfield Services – North America, Asset Manager TranSystems is the sub-consultant to Transfield Services for the FDOT District 5 Asset Management Contract responsible for the inspection and evaluation of eight bascule bridges with fixed approach spans. This involves the Structural, Mechanical, Electrical and Underwater inspections. Ms. Rodriguez performs inspection report reviews and is an Assistant Inspector for this project.

Asset Management Movable Bridges, Florida DOT District 6, Florida Drawbridge Asset Manager
TranSystems is the sub-consultant to Florida Drawbridge for the FDOT District 6 Asset Management Contract. TranSystems is responsible for the inspection and evaluation of 15 bascule bridges. Work on this contract includes the structural, electrical, mechanical and underwater inspections. Ms. Rodriguez has been a Team Leader and Deputy Project Manager in the structural evaluation and inspection of these bridges.

Load Rating Analysis of Seven Movable Bridges, FDOT District 4
Ms. Rodriguez was a Structural Engineer for the load rating analyses of seven (7) movable bridges in District IV. The movable bridges are typically composed of the main movable span (double leaf rolling lift or trunnion bascule leaves), presstressed concrete approach spans, and steel flanking spans. Rated components include bascule span main girders, steel grid deck, stringers, floor beams, flanking span stringer and cross

girders, and approach span beams. Programs used for the ratings are Conspan Bridge Rating, BARS, Virtis, and STAAD/Pro, and in-house developed programs.

MDX Structures Inspection, Miami-Dade Expressway Authority, Miami, FL
Ms. Rodriguez was a Team Leader for inspection services for over 127 bridges and 124 overhead sign structures located throughout Miami-Dade County as part of the 2009 cycle of biennial inspections. MDX roadways include the Don Shula Expressway, Dolphin Expressway, Gratigny Parkway, SR-112 Airport Expressway and the Snapper Creek Expressway. Ms. Rodriguez was a Lead Inspector on the project and also reviewed numerous reports using the state's Pontis software.

Bridge of Lions Rehabilitation, St. Augustine, Florida, FDOT - District 2
Ms. Rodriguez was responsible for the balancing, design of the counterweight, lateral bracing and plans preparation for this rehabilitation project. Transystems was responsible for the inspection, testing, and rehabilitation of the existing bascule piers as well as the structural, mechanical, and electrical design of new bascule leafs and the design of the movable span and piers of the temporary movable bridge to be used during construction of the rehabilitation of the Bridge of Lions. Transystems was also responsible for the historic evaluation of the existing bridge and is working closely with the department and SHPO to manage the effect on this property.

Districtwide Structural Design and Emergency Response & CEI Services, FDOT District 4
Ms. Rodriguez was responsible for design and preparation of plans for various projects under this miscellaneous work order contract.

Ortega River Bascule Bridge Repairs, FDOT District 2
Ms. Rodriguez was a Structural Engineer for the rehabilitation design for this historic bascule bridge. Built in the 1920s, the Ortega River Bascule Bridge is a double-leaf rolling lift bridge that opens for marine traffic more than 15,000 times per year. TranSystems completed a study of the bridge's condition and then prepared plans, specifications and estimates for necessary repairs. As part of the machinery investigation, the drive machinery's ability to meet current design requirements was determined. Plans, specifications and estimates were prepared for replacement of the span drive, rolling lift curved track, span support and span lock components; replacement of the control console and control system with a rail-type panel to fit within the small operator house; replacement of gates, signals and other warning signage for the bridge; and installation of bearings on approach spans where previously there were none. Work was phased so that the bearings were replaced first in order to determine whether the bascule piers had moved. Once the final location of the piers was determined, the machinery was installed to allow for likely thermal movements.

SR 401 Bridges over Barge Canal, Port Canaveral, FDOT District 5
In-depth inspection and Pontis-style reporting for three parallel double leaf bascule bridges with steel stringer, reinforced concrete and prestressed concrete approach spans crossing the New Barge Canal at Port Canaveral. Additional work included preparation of an engineering report detailing the inspection findings and recommended repairs to keep the bridge fully functional for a 20-year period, and preparation of rehabilitation plans. Ms. Rodriguez was responsible for review of quantities and the computation book.

Eric W. Reid, PE
Structural Engineer

Eric Reid works on a range of transportation studies and design projects. A graduate of the University of Virginia with a Bachelor's degree in Engineering and a Bachelor's degree in Economics, Mr. Reid has provided technical support for a wide variety of transportation studies including planning and PD&E studies. He also has experience working with Microstation and AutoCad.

Registrations
Professional Engineer (Civil): FL, 2009

Education
M.S. Ocean Engineering
Florida Atlantic University, 2006

B.S. Mechanical Engineering
University of Virginia, 2003

B.A. Economics
University of Virginia, 2003

Years of Experience
8

Years with Firm
8

Culvert Repairs, Volusia County, FL
TranSystems prepared repair plans for a three cell box culvert carrying Riverside Drive over a drainage canal at its outlet into the Intracoastal Waterway. The structure had documented deterioration to the concrete sidewalls and top slab. Mr. Reid was responsible for plans preparation and preparation of cost estimates for the work, which was to be done in phases using temporary water diversion methods and in partially wet conditions due to stormwater management concerns.

Load Rating of 14 Bridges, Florida DOT District 2
TranSystems performed load rating calculations for 14 existing bridges of various types and sizes, including concrete T beams, concrete slabs and box beams, prestressed concrete beams and steel beams using the VIRTIS bridge rating software. Most bridges were more than 50 years old and had been widened during their service life. Mr. Reid was responsible for performing all ratings, which included reviewed existing plans and other documentation.

Brown's Creek Bridge Repair/Replacement Feasibility Study, Florida DOT District 2
TranSystems completed a study to determine the condition of the existing prestressed concrete box beam bridge with prestressed pile substructures, document and evaluate efficacy of various repair methods, including life cycle cost and constructability, and consider the cost to replace the bridge using phased construction. Mr. Reid was responsible for evaluation of repair methods and replacement bridge configuration.

Ortega River Bridge Rehabilitation, Jacksonville, Florida DOT District 2
Mr. Reid was a structural engineer for the rehabilitation of the Ortega River Bridge, including the replacement of numerous components of the mechanical and electrical systems, including replacement of the control console and control system with a control rail to provide more space in the existing control house, replacement of the existing drives, a new relay-based control system, upgrading the span drive and span lock machinery and replacement of span support machinery components as needed to meet all AASHTO requirements and eliminate failure of pintles, replacement of the existing CCTV system, and replacement of the existing traffic warning gates and signals. In order to address the problem of potentially frozen bearing areas at the approach spans, laminated neoprene elastomeric bearing pads were installed at the approach spans. Mr. Reid performed calculations and reviewed plans for the work performed on the approach spans.

Asset Management Movable Bridges, Florida DOT District 6, Florida Drawbridge Asset Manager
TranSystems is the sub-consultant to Florida Drawbridge for the FDOT District 6 Asset Management Contract. TranSystems is responsible for the inspection and evaluation of 15 bascule bridges. Work on this contract includes the structural, electrical, mechanical and underwater inspections. Mr. Reid has assisted in the structural evaluation and inspection of these bridges.

Florida's Turnpike, South System Inspection, Turnpike District
Mr. Reid was an Assistant Inspector during the 2007 - 2009 cycle for the biennial safety inspection of 313 bridges, 313 overhead sign supports, and 171 weathering steel highmast light towers. The project included all Turnpike owned bridges, overhead sign structures, and weathering steel high mast light towers from the southernmost terminus (mile post 0.0) of the Turnpike to mile post 190 and the Sawgrass Expressway.

Inspection of Movable and Fixed Bridges, Florida DOT District 4, Transfield Services, N.A., Asset Manager
TranSystems is the sub-consultant to the asset maintenance contractor for this FDOT District 4 Contract. TranSystems is responsible for the inspection and evaluation of thirty-seven bascule bridges with fixed approach spans and one tunnel. This involves the Structural, Mechanical, Electrical, and Underwater inspections. There are also seventy-four fixed bridges, which includes three culverts. Fourteen of the seventy-four bridges are high-level segmental concrete box girder. Routine inspections, including underwater inspections are performed on a biennial basis for all bridges, and inspection of the movable spans is done annually. The firm is also on call for emergency inspections, post rehabilitation inspections, post repair inspections and miscellaneous design services. Mr. Reid was an Assistant Inspector on this project.

Inspection of Movable Bridges, Florida DOT District 5, Transfield Services, N.A., Asset Manager
TranSystems is a sub-consultant to the asset maintenance contractor for this FDOT District 4 Contract. TranSystems is responsible for the inspection and evaluation of eight bascule bridges with fixed approach spans. This involves the Structural, Mechanical, Electrical and Underwater inspections. Routine inspections, including underwater inspections are performed on a biennial basis and inspections of the movable spans are done annually. The bridges are located in three counties; Lake County over the St Johns River, Brevard County over the Barge Canal, and Volusia County over the Indian River. Four of the bridges are double leaf bascule, and the other four are single leaf, with a total of 46 approach spans. The mechanical components vary from Hopkins Frame to Hydraulic cylinders. The firm is also on call for emergency inspections, post rehabilitation and repair inspections and miscellaneous design services. Mr. Reid was an Assistant Inspector on this project.

McGrath Highway/McCarthy Overpass, Somerville, Massachusetts DOT
The Massachusetts DOT has retained TranSystems to perform a VIRTIS Load Rating of the McGrath Highway/McCarthy Overpass in Somerville, Massachusetts. TranSystems was tasked with performing a VIRTIS load rating to determine the structural adequacy of the overpass. Girder System, Girder Line and Floor Line models were developed in VIRTIS to perform the rating. Mr. Reid performed calculations and reviewed VIRTIS model inputs and results.

Bradley R. Kopping, PE
Mechanical Design & Inspection

Mr. Kopping is a Senior Mechanical Engineer responsible for the design and inspection of mechanical facilities for new and rehabilitated movable and fixed bridges, and leads TranSystems' movable bridge mechanical engineering staff.

Registrations
Professional Engineer: FL
Professional Engineer: NY
Professional Engineer: CT
Professional Engineer: MA
Professional Engineer: MS
Professional Engineer: OH

Education
BSME, 1989
New York Institute of Technology

Affiliation and Membership
American Railway Engineering and Maintenance-of-Way Association
AREMA Committee 15
American Society of Mechanical Engineers (ASME)
Heavy Movable Structures, Inc. (HMS)

Years of Experience
22

Years with TranSystems
2

Asset Management Inspection of Movables Bridges, Florida, FDOT District 4
Mr. Kopping was the Senior Mechanical Engineer responsible for machinery inspections and recommendation reports for all State-owned movable bridges in the District. TranSystems, as a subconsultant to the Asset maintenance Contractor, was responsible for the inspection and evaluation of thirty-seven bascule bridges with fixed approach spans. The movable bridge inspections included the structural, mechanical, electrical, and underwater inspections. Routine inspections, including underwater inspections were performed on a biennial basis for all bridges and inspections of the movable spans were done annually. TranSystems was also on call for emergency inspections, post rehabilitation inspections, post repair inspections and miscellaneous design services.

Inspection of Movables Bridges, Florida, FDOT District 6
Mr. Kopping was the Senior Mechanical Engineer responsible for machinery inspections and recommendation reports for all State-owned movable bridges in the District. TranSystems, as a subconsultant to the Asset maintenance Contractor, was responsible for the inspection and evaluation of fifteen bascule bridges with fixed approach spans. The movable bridge inspections included the structural, mechanical, electrical, and underwater inspections. Routine inspections, including underwater inspections were performed on a biennial basis for all bridges and inspections of the movable spans were done annually. TranSystems was also on call for emergency inspections, post rehabilitation inspections, post repair inspections and miscellaneous design services.

Connecticut River Bridge No. 106.89, Old Saybrook, CT
$2 million fast-track inspection and operational evaluation of this Northeast corridor, single-leaf Scherzer rolling-lift bridge led to an in-depth mechanical inspection for abnormal wear patterns and machinery failure. Provided mechanical repairs and design of electrical control system replacement. Design includes motion controller-based primary control system and PC-based data acquisition system. Provided construction support. Mechanical Engineer responsible for performing design and providing calculations for auxiliary drive.

Alford Street Bridge over the Mystic River, Boston, Massachusetts
$25 million structural, mechanical, and electrical rehabilitation design of this 1400-foot-long bridge crossing the Mystic River with a double-leaf steel bascule span (160 feet long). Included inspection, repair recommendations, deck replacement, and lighting, heating, and traffic control system design. New design was for the complete replacement of the existing four leaves. Mechanical Engineer responsible for performing design and providing calculations for auxiliary drive.

Exchange Street Bridge, New York State Thruway Authority , Lockport, NY
$1 million rehabilitation of a vertical lift bridge over the Erie Canal. Provided complete machinery replacement. Mechanical Engineer responsible for inspection and design calculations for motor size. Involved weight of bridge, bending tension in the counterweight ropes, wind loads, and weight of counterweight ropes. Provided calculations for shaft size of counterweight sheaves.

I-94 B.L. over St. Joseph River, MDOT, Berrien County, Michigan
$5.8 million structural rehabilitation of historic, 571-foot-long, twin double-leaf rolling lift bridges and approach spans. Included design of hydraulic span drive machinery, electrical controls, and structural alterations for fatigue-prone details. Included design of deck replacement and operator house. Mechanical Engineer responsible for sizing main and secondary cylinders and design of cylinder mountings and limit switch layouts. Performing and checking calculations for cylinder force requirements, HPU power and sizing requirements, and hydraulic tubing and piping sizing requirements.

Calumet River Vertical-Lift Railway Bridge, Chicago, IL
$3.87 million rehabilitation of a historic, 210-ft skewed vertical-lift. Mechanical/electrical system design included new flux vector drives, PLC system, and operating machinery completed in three months. Mechanical Engineer responsible for performing design of drive machinery and layout of machinery room; calculating gearbox ratio, back-up motor size and its own reducer ratio; and sizing of motor brakes, machinery brake, and all couplings. Coordinator for shop drawing review and RFIs and served as liaison between client and contractors.

Route 7 over Passaic River, NJDOT, Kearny, NJ
$30 million bridge replacement. A new, 125-foot-long, 73-foot-wide tower driven vertical lift replaced a single-leaf, Strauss heel trunnion bascule. Provided preliminary and final design; approach roadways; feasibility studies; structural, mechanical, and electrical design; highway design; and seismic, scour, and historic alternative analyses. Used LRFD, metalizing, and silica fume concrete in the deck gratings to maximize design life and minimize life cycle costs. Mechanical Engineer responsible for performing construction inspection.

Stutson Street Bridge Replacement – The New O'Rorke Bridge, Rochester, New York
$84 million new design features a 220-ft double-leaf Scherzer rolling lift. Aesthetically-pleasing landmark bridge is a gateway to Rochester, providing a safe and efficient crossing of the Genesee River. Involves mechanical and electrical construction inspection and resident engineering services for the bascule bridge replacement. Mechanical Engineer responsible for performing construction inspection.

Woodrow Wilson Bridge New Bascule Design, Maryland DOT, Washington DC
$181 million design of a new 12-lane bascule span. Bridge is 6000 feet long with parallel, 222-foot-long, double-leaf bascule spans. Its construction is part of the 7.5-mile-long, $2.5 billion Capital Beltway Interchange Project. Included span superstructure, trunnion towers, and mechanical and electrical systems. Mechanical Engineer responsible for design calculations of the trunnions, span locks, and tails locks. Responsible for the development of mechanical specifications.

Todd E. Dunavant, AIA, LEED AP
Architectural

Mr. Dunavant has in excess of 20 years of experience in the field of architecture. The majority of his varied experience was acquired while working on military/government projects throughout the southeastern United States. Transportation oriented facilities has become a major focus for Mr. Dunavant. Recent experience includes design of facilities with railroad interface as well as parking garages. He is very capable in the design, production and coordination of construction documents. He also has substantial experience in the planning, concept design, and development phases of building projects. In the last 4 years, Todd has led the design team in performing facilities planning and concept development for over $145,000,000 worth of construction. He has designed several award winning and LEED rated projects. Mr. Dunavant has been a LEED Accredited Professional for 12 years and was the 2nd LEED Accredited Professional in Jacksonville, FL.

Registrations
Registered Architect: FL, 1998
LEED Accredited Professional, 2001
NCARB, 1998

Education
B.A., Architectural Design
University of Florida, 1991
M.A., Architecture
University of Florida, 1993

Total Experience
20 years

Parking Garage Expansion, Savannah Hilton Head International Airport, Savannah, GA
Mr. Dunavant was the Project Architect for the parking garage expansion, which was a new 4-Tier precast concrete garage located adjacent to and existing 2-Tier structure. The project cost was $32 million and included 1200 parking spaces with automated electronic parking control system. The design included brick & precast panels with brick inlays to reflect the historic Savannah theme that is prevalent throughout the airport. It also featured architectural stair towers with standing seam metal roof as well as a Large Atrium space, built around an existing feature stair and fountain, with skylight with extensive landscaping. It was masterplanned for future expansion of 2,500 spaces. Mr. Dunavant has also designed a Facilities Maintenance Complex, a Valet Parking/Rental Car Canopy Expansion & Curbside Canopy Expansion for the Savannah Airport.

Consolidated Parking Garage, Barksdale Air Force Base (Historic District), LA
Mr. Dunavant was the Project Designer and Project Architect on this new $11 million, 4-Tier, 490 space precast concrete parking garage. The project was located in the Historic District of Barksdale Air Force Base. He designed the architectural massing, detailing and materials selection of the new parking garage to be compatible with the existing buildings and overall character as required by the State Historic Preservation Office, while adhering to Design Compatibility Guidelines for Barksdale Air Force Base. In keeping with surrounding buildings, the new parking garage has simple symmetrical massing with a tripartite facade organization accentuated by a contrasting dark brown projecting base. It contains stucco quoins, projected bands at floor levels and entrance portals that emulate the elaborate cut stone entrance elements on several of the historic buildings in the district. The project received an outstanding evaluation for customer satisfaction.

SunRail / FDOT Operations Control Center, Central Florida Rail Corridor, VSMF Yard, Sanford, FL
Mr. Dunavant was the Project Designer and Project Architect on this new 16,000 SF single story facility which houses the operations and maintenance staff for the Central Florida Rail Corridor also known as

SunRail. The facility contains the Operations Control Center / Dispatch facility and Server Room for the entire corridor. The facility also includes conference rooms, EOC, combined office, tool lock-up offices, break rooms, locker rooms along with Tool Lock-Up areas for Structures, Signals, and Track Work groups. The structure is a pre-engineered metal building with brick base. The facility also contains emergency generator, entry control systems, raised area flooring, UPS system for the Control Center. It is sited adjacent to the Vehicle Service and Maintenance Yard.

SunRail / FDOT Service & Inspections Facility, Central Florida Rail Corridor, VSMF Yard, Sanford, FL

Mr. Dunavant was the Project Designer and Project Architect on this new 8,277 SF railway vehicle inspection building. The facility is designed to accommodate a 3-car consist for commuter rail passenger cars with locomotive. The structure is a single slope pre-engineered metal building with open sides. The 324' long open air shed features a 270' long , 5'-0" deep by 10'-4" wide cast in place concrete inspection pit. Drainage systems within the pit direct condensate from the walk aisle with in the pit. The pit design includes considerations for fall protection as well as lighting and ventilation systems for a safe work environment. Steel columns within the pit support the rail at 4'-0" intervals. The facility is also equipped with an office, restroom and tool storage area. Compressed air systems, overhead lighting, lubrication systems and moveable bridges to cross the pit at grade were provided.

Third & Main - Mixed Use Development, (Springfield Historic District) Jacksonville, FL

Mr. Dunavant was the Project Designer and Project Architect for this new retail/restaurant/residential facility located in the Historic Springfield District of Jacksonville, Florida. The $11.7 million, mixed-use project is 3 stories, with 7,500 s.f. of the first level being dedicated to retail space. The upper levels contain 36 residential units. The storefronts are prominently located facing Main Street and wrap around the corner before visually breaking at the parking entrance and transitioning into a residential building, before it abuts the historic residences to the east. In addition to using architectural elements characteristic of the Prairie Style such as wood windows with Arts & Crafts muntins and Klutho influenced cross motifs, 3rd & Main replicates traditional commercial design by incorporating storefronts with transoms, large display windows and knee walls 3rd and Main is the first major new commercial construction along North Main Street in Springfield during the last forty years and the first new mixed use building in the Historic District. During the short time it has been opened, 3rd and Main has come to symbolize Springfield's continued revitalization as a unique neighborhood with much to offer. The project was awarded the 2010 Historic Preservation Award from Jacksonville Historic Preservation Commission for Architecturally Compatible New Construction.

Beaches Museum & History Center, Jacksonville Beach, FL

Mr. Dunavant was the Project Architect of this new 2-story state of the art museum, archives and administrative offices facility. This prominent public facility houses artifacts and historical information for Northeast Florida's coastal communities. It also serves as headquarters for the Beaches Area Historical Society. Features include low maintenance – high durability finishes that will withstand the harsh coastal climate. The interior and exterior design features massing and detailing that references the adjacent historic train terminal and railroad artifacts display. The exterior color was specified to match Florida East Coast Yellow to match the other buildings in the historic campus setting. The project was awarded 2006 project of the year by the Association of Building Contractors.

Ian N. Biava, PE
Senior Highway Engineer

Ian Biava is an accomplished highway engineer offering more than 22 years of experience in project management, program management, innovative project delivery (PPP and Design-Build), roadway design, traffic control plans and transportation engineering. His expertise covers RFP development, highway and interchange design, master plan design, conceptual interchange design, utility adjustments, signing and markings, guide-sign concepts and traffic-control plans.

Registrations
Registered Professional Engineer: Florida (No. 50700), 1996

IMSA Work Zone Safety Specialist (No. Z 21782)

IMSA Associate Traffic Signal Technician - Level 1 (No. 20717)

IMSA Traffic Signal Electrician - Level 2 (No. BE 20717)

Education
Bachelor of Science in Civil Engineering, University of Florida, 1991

Years of Experience
22

Years with Firm
<1

I-4 Ultimate Reconstruction-Ivanhoe to Kennedy FDOT District Five, Orlando, FL
Mr. Biava is a civil engineer on this project, responsible for horizontal and vertical design support and quality. assurance. This is a 5-mile project, from Ivanhoe Boulevard to Kennedy Boulevard, designed to improve mobility within the existing I-4 corridor through Orlando. The project involves reconstructing I-4 to provide six general use lanes, auxiliary lanes, improved interchanges, special use lanes, and provisions for a light rail system. Service includes The project is designed to a Part A completion and consists of 65% roadway plans; 90% drainage plans and 15% bridge plans, Part A drainage design and permitting.

SR 710 Design Option, West Palm Beach, FL
Project manager for the development Design-Build Request for Proposal documents, and for supporting FDOT during the procurment and the post design services for this design-build project.TranSystems is currently working on the SR 710 PD&E, which extends from one mile east of SR 76 to Blue Heron Boulevard at I-95 It has been determined that the western segment of the corridor will need to be reconstructed from the current two-lane section to a four-lane divided rural roadway. The Department advertised a design-build contract for the section from the Martin/Palm Beach County line to Pratt Whitney Road, a distance of approximately 6 miles.

I-595 Corridor Roadway Improvements Project, FDOT District Four, Broward County, FL
Design Team Manager. Corridor Design Consultant Design Task Leader in the geometric development of the I-595 corridor from I-75 to I-95 including the interchange with Florida's Turnpike. Responsibilities included consultant contract management, budgeting, scheduling, concept development and review, line and grade development and production, Request for Proposal development, Public-Private Partnership project delivery development and support, including design reviews, contract compliance and post-design support.

SR 710 Beeline Highway Design-Build, FDOT District Four, Martin County and Palm Beach County, FL
Project Manager. RFP development and assistance in the procurement of this design-build project. Includes the reconstruction of a two lane rural to a four lane divided, including access management modifications. The project will provide attenuation within the adjacent wetlands eliminating offsite ponds and reducing

wetland impacts. Stormwater treatment will be within proposed swales within the existing FDOT right-of-way.

I-595 3R, FDOT District Four, Broward County, FL
Project Manager and Engineer of Record. Interstate highway rehabilitation in Broward County. Includes signal improvements, intersection improvements, guide-sign conceptual changes and detailed traffic control plans.

SR 84 Westbound/I-595/I-75 Westbound Slip Ramp, FDOT District Four, FL
Project Engineer. Alternatives Design and Analysis. Designed detailed alternative alignments for a new slip ramp connection from westbound I-595/I-75 to westbound SR 84 within the Sawgrass Expressway/I-75/I-595/SR 84 interchange. Four alignments were presented to FDOT, including a recommended alignment. The construction of this project successfully relieved congestion at the SR 84 WB/SW 136 AV signalized intersection.

I-595 Capacity Improvements (SR 7 to I-95), FDOT District Four, FL
Lead Design Engineer. Prepared design plans for a fast-track capacity improvement project. This project included the preparation of sketches and quantities for a maintenance letting for contractors to bid on restriping I-595. The restriping of I-595 and the I-95 ramps created additional lanes on the ramps and on mainline to balance the existing and projected traffic demands. This much-needed project went from conception to construction complete in eight months. The project included widening on embankment areas to provide for an additional lane and maintain a standard shoulder. The project included milling and resurfacing to remove conflicting striping patterns and marking removal where stripes were replaced in the same alignment. The project required design exceptions for lane width, shoulder width and bridge width, which were coordinated with FDOT's central office and FHWA. The need for the exceptions stems from one mile of the project being located on bridges, which would be cost prohibitive to widen at this time. The modifications covered approximated 3.5 miles of I-595 and included roadway widening, median guardrail, overhead guide signs and special striping details.

I-95/HOV, North of Forest Hill Boulevard to North of Congress Avenue, FDOT District Four, Palm Beach County, FL
Project Engineer. Addition of HOV lanes along I-95 in Palm Beach County. Specifically responsible for design of the Traffic Control Plans.

I-95/Palm Beach International Airport Direct Connection and Post Design Services FDOT District Four,, FL
Project Manager. Realignment of I-95 and reconstruction of two-level interchange to three-level directional interchange with braided ramps. While Project Manager for Post Design Services, duties included extensive coordination with CEI and Contractor for a four and one-half year, $110 million construction contract.

PGA Boulevard Grade Separation, FDOT District Four, Palm Beach County, FL
Project Manager. Grade separation of an at-grade intersection of PGA Boulevard over Alternate A1A and the FEC railway in Palm Beach County. Provided project management, interchange design and extensive traffic-control plans for this interchange which included ramp connections to I-95 and architectural features. While Project Manager for Post Design Services, duties included extensive coordination with CEI and Contractor for a three and one-half year, $33 million construction contract.

Mark Owen, PE
Senior Transportation Manager

Mr. Owen has more than 29 years of experience in the management and design of transportation projects. As the Transportation Manager, he has overall management responsibilities including technical support and quality assurance. In this capacity, he works to assure client satisfaction through provision of the personnel and technical resources needed to meet the client's budget, schedule and project goals.

Registration
Professional Engineer, 1989, FL, #42163
Professional Engineer, 1989, GA, #17721
Professional Engineer, 1989, NC, #016171
Professional Engineer, 1990, VA, #020543

Education
BS, Civil Engineering Technology, 1980, University of Alabama

Affiliations & Memberships
Florida Engineering Society

Years of Experience
29

Years with TranSystems
3

I-75 Widening from north of Kings Highway to south of Toledo Blade, FDOT District One, Sarasota County, FL
Project Manager. Project consists of the widening of I-75 from four lanes to six lanes from north of Kings Highway to south of Toledo Blade, a total of 7.5 miles. It also includes the widening of I-75 bridges over Raintree Blvd, Yorkshire Street and Newcastle Waterway.

I-4 Ultimate Reconstruction-Ivanhoe to Kennedy, FDOT District Five, Orlando, FL
Project Manager. This 5-mile project, from Ivanhoe Boulevard to Kennedy Boulevard, is designed to improve mobility within the existing I-4 corridor through Orlando. The project involves reconstructing I-4 to provide six general-use lanes, auxiliary lanes, improved interchanges, special use lanes, and provisions for a light rail system. Service includes review of Bridge Development Reports for more than 20 bridges, Part A drainage design and permitting.

I-4 / SR 434 Interchange, FDOT District Five, Seminole County, FL
Project Manager. This project was for the preparation of 60% construction plans and "Part A" documents for the widening of I-4 and improvements to the interchange. The design will include three general use lanes, one auxiliary lane and two special use lanes. The limits of the project are I-4, from 0.25 miles north of Central Parkway to 1.7 miles north of SR 434.

I-75 / Golden Gate Parkway Interchange Final Design, FDOT District One, Naples, FL
Project Manager. This project was for the design of a new interchange on I-75 at Golden Gate Parkway in Naples. Project includes widening of Golden Gate Parkway over I-75 and three new ramp bridges over the Golden Gate canal. Project also includes the 6-laning of Golden Gate Parkway, frontage roads, lighting, plans, signalization, signing and pavement marking and landscaping.

SR 528 / Narcoossee Road Interchange, OOCEA, Orlando, FL
Project Manager. This project involved design and preparation of construction documents for the reconstruction of the existing SR 528/Narcoossee Road Interchange. Improvements included the widening of SR 528 from four lanes to six lanes and the widening of Narcoossee Road from a two lane rural to a four lane urban section (expandable to six lanes). The contract also included a new 170' steel bridge over Narcoossee Road, signal plans, signing and marking, lighting and landscape plans.

SR 436 Final Design, FDOT District Five, Orlando, FL
Project Manager. This project was for the final design of SR 436 which included plans to widen 4.5 miles of four-lane divided rural section to a six-lane divided urban roadway with curbs and gutters. Design included bicycle lanes, pedestrian facilities, signing and pavement marking, signalization plans for 10 intersections, street lighting, major regional detention ponds, ex-filtration drainage design, wetland mitigation, environmental permitting, traffic control plans, box culverts, retaining walls and public involvement.

I-75 Widening from south of Tuckers Grade to south of Jones Loop, FDOT District One, Charlotte County, FL
Project Manager. Project consists of the widening of I-75 from four lanes to six lanes from south of Tuckers Grade to south of Jones Loop, a total of 3.5 miles. It also includes the widening of I-75 bridges over Tuckers Grade and Alligator Creek.

I-75 Widening from Golden Gate Parkway to Bonita Beach Road, FDOT District One, Collier County, FL
Project Manager. Project consists of the widening of I-75 from four lanes to six lanes from Golden Gate Parkway to Bonita Beach Road, a total of 10.6 miles. It also includes the widening of I-75 bridges over Pine Ridge Road, Vanderbilt Beach Road, Immokalee Road and Cocohatchee Canal.

Neptune Road Reconstruction-Phase 2 & 3, Osceola County, Kissimmee, FL
Project Manager. Design of 3.9 miles of Neptune Road, from Partin Settlement to US 192. This 4-lane urban section roadway design includes two bridges and a closed drainage system. Other design elements include right-of-way and design survey, environmental analysis, drainage analysis, pond siting, lighting, pavement and pavement marking, signalization and permitting with the appropriate agencies.

SR 408 Widening-Oxalis Drive to Chickasaw Trail, OOCEA, Orlando, FL
Senior Engineer. This final design project for the Orlando/Orange County Expressway Authority (OOCEA) involved the reconstruction of SR 408, from Oxalis Drive to Chickasaw Trail, for increased capacity, safety improvements and side street operations. The project involved widening existing bridges, interchange modifications at Goldenrod Road and a new interchange at Chickasaw Trail. The proximity of the interchanges made it necessary to design new braided ramps to improve traffic operations. Services provided also included assisting in final stormwater conveyance system, pond design and permitting.

SR 528 / SR 436 (BeachLine) Interchange, OOCEA, Orlando, FL
Project Manager. This OOCEA project includes interchange modifications, realignment of ramps and the addition of a new flyover ramp into the Orlando International Airport. Design elements included roadway, drainage, bridge, signing, lighting and ITS. The scope is for 60% complete plans for the project to be completed under a design-build contract.

I-95 Design / Build from South of I-4 to North of US 92, FDOT District Five, Volusia County, FL
Transportation Engineer. Project involves the widening of I-95 from 4-lanes to 6-lanes including drainage design, signing and marking, lighting and ITS modifications. Project also includes modifications to US 92 interchange and the widening of three bridges.

Eric C. Wooley, PE
Assistant Project Manager / Roadway Project Engineer

Mr. Wooley has 20 years of experience in the management and design of transportation projects. As a Project Engineer, he has overall responsibilities for all design disciplines and subconsultants including technical support as well as maintaining project schedule and quality assurance.

Registration
Professional Engineer, FL, 2009

Education
University of Central Florida
B.S. Civil Engineering, 1993

Years of Experience
20

Years with TranSystems
3

SR 600 (US 92) Widening/Reconstruction I-4 Ramps to Tomoka Farms Rd. in Volusia County, Fl.
Project Engineer. Project consists of the widening SR 600 rural arterial to six lanes (mixed) from the I-4 ramps to Tomoka Farms Rd. (2.0 miles) west of Daytona Beach. Includes reconstruction of Tomoka River Bridges. (Construction Cost estimate $24 million)

I-75 Widening from N. of Kings Hwy to S. of Toledo Blade Rd., FDOT District One, Charlotte, Desoto, and Sarasota Counties, FL
Project Engineer. Project consists of the widening of I-75 from four lanes to six lanes from Kings Hwy to Toledo Blade Rd., a total of 7.6 miles. Includes replacement of two bridges at Raintree Blvd and widening of four I-75 bridges Yorkshire Blvd and Newcastle Creek. (Construction Cost $63 million)

I-75 Widening from South of Tuckers Grade to south of Jones Loop, FDOT District One, Charlotte County, FL
Project Engineer. Project consists of the widening of I-75 from four lanes to six lanes from south of Tuckers Grade to south of Jones Loop, a total of 3.5 miles. It also includes the widening of I-75 bridges over Tuckers Grade and Alligator Creek. (Construction Cost $38 million)

I-75 Widening, Golden Gate Parkway to Bonita Beach Road, Collier County, FL
Project Engineer. Project consists of widening I-75 from four to six lanes, from Golden Gate Parkway to Bonita Beach Road, a total of 10.6 miles. Also includes widening of the I-75 bridges over Pine Ridge Road, Vanderbilt Beach Road, Immokalee Road, and Cocohatchee Canal.

SR 15/600 (US 17/92) Design Services, Seminole County, FL
Project Manager. This design project for widening 3.65 miles of SR 15/600 followed a PD&E study JCB did on the same section of road. Scope includes widening the existing 4-lane rural section to a 6-lane divided urban roadway with raised median, curb/gutter and sidewalks. The design will include bike lanes and accommodations to reduce potential wetland impacts in the Spring Hammock Preserve area (north of Shepard Road to north of Soldiers Creek bridge). Stormwater runoff will be handled via grading, closed drainage system and off-site ponds. The design is expected to be constructed within the existing road envelope, requiring no added right-of-way (except pond site acquisition) and will take into account the projected future traffic capacity.

SR 436 Final Design, Orlando, FL; Project Engineer. Final design of SR 436 (Semoran Blvd.) between SR 528 (Beach Line Expressway) and SR 552 (Curry Ford Road) The project involved the reconstruction of SR 436 from a 4-lane divided roadway to a 6-lane urban section with a 30-foot raised median with bicycle lanes and pedestrian facilities. Other improvements included signing and marking, signalization, lighting, and structural design.

SR 528/Narcoossee Road Interchange, Orlando, FL
Highway Design Engineer. This project involved design and preparation of construction documents for the reconstruction of the existing SR 528/Narcoossee Road Interchange. Improvements included the widening of SR 528 from four lanes to six lanes and the widening of Narcoossee Road from a two lane rural to a four lane urban section (expandable to six lanes). The contract also included a new 170' steel bridge over Narcoossee Road, signal plans, signing and marking, lighting and landscape plans.

SR 408 Widening-Oxalis Drive to Chickasaw Trail, Orlando, FL
Engineer of Record. This final design project for the Orlando/Orange County Expressway Authority (OOCEA) involved reconstruction of SR 408, from Oxalis Drive to Chickasaw Trail, for increased capacity, safety improvements and side street operations. The project involved widening existing bridges, interchange modifications at Goldenrod Road and a new interchange at Chickasaw Trail. The proximity of the interchanges made it necessary to design new braided ramps to improve traffic operations. Services provided also included assisting in final stormwater conveyance system, pond design and permitting.

Michigan Avenue Roadway Improvements - Osceola County, Kissimmee, FL
Project Manager/Engineer. Was responsible for budget and schedule and served as primary liaison with Osceola County and city of Kissimmee. Coordinated and conducted all meetings associated with project. Served as primary designer in compliance with all FDOT criteria. Managed and designed widening (to four lanes) and urbanizing of an existing 2-lane rural section. Prepared preliminary engineering study, pond siting reports and right-of-way and easement acquisition. Coordinated permitting activity and compliance. Coordinated and developed bore and jack permitting via CSX Railroad. Also coordinated all subconsultant activity associated with project, including topographical and geotechnical surveys, the environmental assessment and utility relocation requirements.

FDOT District 5, I-4 Widening-Deland to Daytona, Volusia County, FL
Project Manager. The project involved widening to six lanes 12.5 miles of I 4, from east of SR 44 to west of I-95, by adding a lane to the outside in each direction. Project included replacement of the Tomoka River Bridge, MSE, anchored sheet walls, three new animal underpasses and reconstruction of the I-4/US 92 interchange to replace the existing bridge with a new five-span, 1,072-foot flyover ramp with continuous curved steel plate girders. As Project Manager and Project Engineer, Mr. Wooley provided technical design and traffic control, quantity analysis and preliminary engineering reports for the project.

I-10 Final Design-SR 263 (CCNW), Tallahassee, FL
Roadway Engineer. Prepare construction contract plans and documents for the widening of I-10 to three lanes in each direction. The limits of the project are I-10, from west of the rest areas to west of CR 361, approximately 3.0 miles. Improvements to the I-10/SR 263 interchange are also included. The project involves the widening of six existing bridges. Numerous noise walls and retaining walls are also included. The goal of the project is to increase the capacity of the existing facilities by widening I-10 and SR 263.

I-95 Design/Build from South of I-4 to North of US 92, Volusia County
Project Engineer. Project involves the widening of I-95 from 4-lanes to 6-lanes including drainage design, signing and marking, lighting and ITS modifications. Project also includes modifications to US 92 interchange and the widening of three bridges.

John Scarlatos

Mr. Scarlatos has over twelve years of experience and works on a wide range of transportation studies, including planning and PD&E studies. He also has experience working with Microstation and assists in the development of conceptual plans including typical section package, and writing portions of project reports.

Education
B.S., Mechanical Engineering, FAU, 2000

Years of Experience
13

Years with Firm
8

Interstate 95 Sketch Interstate Plan (SIP), FDOT Central Office Systems Planning, FL
Project Engineer. Developed Existing Conditions Report for the SIP. Purpose of project was to outline a course of action to improve users/travelers mobility within the I-95 corridor from the Georgia/Florida state line south to the Brevard County/Indian River County line. The study identified mainline concepts to provide increased mobility to adequately serve high speed, long-distance, high volume travel facilitating interstate and regional commerce. A significant focus of this study was the movement of a high volume of trucks and freight through the corridor.

I-95 Glades PD&E, Palm Beach County, FL
Assistant Project Manager. PD&E project which involved roadway widening for I-95 from south of Glades Road to south of Linton Boulevard (approximately six miles in length), the widening of Glades Road from Butts Road to Florida Atlantic Boulevard (approximately two miles in length), and the implementation of a new interchange. Written many portions of the PDSR and PDER, and has developed the preliminary concept plans as well as typical sections. Also involved in right of way analysis and public involvement for the project.

SR 710 Project Development & Environment Study, Martin and Palm Beach Counties, FL
Project Engineer. This roadway capacity improvement project in Martin and Palm Beach Counties will add two lanes to the existing 2-lane undivided rural segment of SR 710 (Bee Line Highway) from one mile east of SR 76 to the Pratt Whitney Entrance, give consideration to a shared use path from the Pratt Whitney Entrance to Northlake Boulevard, and add two lanes to the existing four lanes from Northlake Boulevard to Blue Heron Boulevard (to be converted to an urban section). An interchange at Northlake Boulevard is also included. Under a separate PD&E, improvements also include adding two lanes to the

US 1 PD&E, Martin County, FL
Project Engineer. This PD&E project which involved widening US 1 from six to eight lanes, and extensive access management work, including coordination with the Variance Committee, the public and local governments, addition of bicycle lanes, sidewalks, and a landscape scheme. He has worked on the development of the conceptual plans, typical section package, and the Preliminary Engineering Report. Together with Mike Tomecko and Frank Gordon, John drafted the preliminary drainage report for this PD&E project. Provided all coordination for, and assisted in drafting the environmental documents for this project. Supervised all public hearing graphics and assisted in the public involvement process.

I-95 HOV Lanes PD&E, Palm Beach County, FL
Project Engineer. Provided support for the PD&E and 30% plans (CADD support) in the I-95 HOV lane project in Palm Beach Gardens which involved road and bridge widening from six to ten lanes, as well as drainage design. Involved in the development and review of the typical section package, design variance and exceptions analysis, ramp Design Variance and exceptions analysis, ramp design, bridge clearances review, involvement in preliminary drainage design, preliminary right-of-way plans, and traffic control plans. Wrote portions of the PE Report and instrumental in QA/QC for this seven mile project.

SR 50 PD&E Study, Lake County, FL
Project Engineer. Project Development and Environment Study (NEPA) for the re-alignment of 2.3 miles of SR 50 around the town of Groveland in Lake County, Florida. This study involves preparation of corridor analysis, preliminary engineering, environmental documents, potential Section 4(f) documents, conceptual stage relocation plan, and public involvement. The Class of Action is a Type II Categorical Exclusion.

I-10 at US 29 Interchange Improvements & Widening of I-10, Escambia County, FL
Project Engineer. Prepared Conceptual Stage Relocation Plan for the project which consisted of a proposed new interchange at I-10/US 29 and widening of I-10 from west of the US 29 interchange to west of SR 8A (I-110) interchange.

Okeechobee Road Expert Witness
Project Engineer. This project involved widening of Okeechobee Road where right-of-way take was needed which would impact the business of an adjacent gas station. Assisted in all CADD work and the development of a plan that would avoid impact of business damages.

NW 107th Avenue, Miami-Dade, FL
Project Engineer. Provided support in developing drainage concepts for this project. Participated in the location of utility conflicts, and helped in the design of a drainage system that avoided those conflicts.

I-95/I-4 PD&E
Assisted in modification of the concept plan and development of existing and proposed typical sections.

Miami International Airport/ Miami International Center
Provided CADD support and was responsible for the signage design within the vicinity of Miami International Airport.

US 27 PACE
Assisted in the access management plan for this project and also developed the conceptual plans.

US 1 PACE
Developed the conceptual plans and assisted in the access management.

SR 76 PACE
Developed the conceptual plans and worked on the access management plan. Finalized the typical sections and wrote portions of the report.

NW 74th Street Scoping Study
Served as the assistant Project Manager and lead design engineer on this study. Worked on difficult and challenging alignment and business damage issues between NW 87th Avenue and SR 826.

Jeffrey S. Flanders, PE
Electrical Engineer

Mr. Flanders is an Electrical Engineer experienced in Construction Inspection, design for rehabilitation, new design, inspection and maintenance of electrical systems and hydraulics for movable bridges.

Education
B.S., Electrical Engineering
Florida State University, 1992

Registrations:
Professional Engineer, FL
Professional Enginner, SC
Professional Enginner, VA
Professional Enginner, WA

Years of Experience
21

Years with Firm
10

Crescent Beach Bridge, Crescent Beach, Florida – FDOT District 2
Responsible for the design of a complete control system including modern variable speed drives for a double leaf bascule bridge. Control system design featured full PLC control and monitoring with relay backup. Variable speed drives were specified as fully digital flux vector technology with diagnostic interface to the control system to insure safe control of the bride leaves during fault conditions.

US 41 over Hatchett Creek, Venice – FDOT District 1
Responsible for the design of a 60 horsepower hydraulic drive system (one for each leaf) for the operation of a four leaf bascule bridge. Duties involved the design of the hydraulic drive system based on specific operating criteria and the design of a control system with all necessary safety interlocks and drive controls for the bridge machinery. The hydraulic drive design utilized a standard industrial design with diagnostic for monitoring of system functions.

US 41 (South Bridge), Venice, Florida – FDOT District 1
Responsible for the design of a 60 horsepower, open-loop hydraulic cylinder drive system for the operation of a four leaf bascule bridge. Duties involved the design of the hydraulic drive system based on specific operating criteria and the design of a control system with all necessary safety interlocks and drive controls for the bridge machinery.

A1A/17th Street Causeway Permanent Bridge, Fort Lauderdale, Florida - FDOT District 4
Mr. Flanders was responsible for drive system analysis and comparison for a new double span, double leaf bascule bridge. Prepared plans and specifications for bridge electrical and control systems using 125 horsepower DC motor drives. Performed shop drawing review of electrical system during construction.

A1A/17th Street Causeway Temporary Bridge, Fort Lauderdale, Florida - FDOT District 4
Mr. Flanders was responsible for the design of an 80 horsepower hydraulic drive system for the operation of a single-leaf, Dutch style overhead counterweight, temporary bascule bridge. Also responsible for the design of the hydraulic drive electrical control system and interfacing to an existing bridge control desk. Performed shop drawing review of electrical and hydraulic equipment during construction.

SW 2nd Avenue Bridge, Miami, Florida – Dada County in conjunction with FDOT District 6
Provided Construction, Engineering, and Inspection (CEI) assistance relating to the installation of electrical power and control systems for a new double leaf bascule bridge. Duties involved shop drawing review, shop test witnessing, and on-site inspection. Electrical systems included dual stations for bridge operations, full PLC logic controls, low voltage lighting controls, and 480 VAC motor controls.

Heron Street Bridge, Aberdeen, Washington – WSDOT
Mr. Flanders prepared rehabilitation plans and specifications for control system modifications for a hydraulically operated swing bridge. Control modifications included removal of components of an existing control system and installation of new components to facilitate the proper operating of the bridge locks, end jacks, end wedges, and center wedges.

Atlantic Avenue Bridge, Palm Beach, Florida – Champion Controls (Private Contractor)
Provided Control Integration services for the project's electrical sub-contractor. Services included coordination of all electrical and mechanical contract work and review of all electrical submittals for compliance with the specifications.

SR 211 over the Ortega River, Jacksonville, Florida – FDOT District 2
Mr. Flanders was responsible for the complete design of a relay based control system to interface to an SCR motor drive system and the design of the hydraulic span lock drives, lockbar, receivers, and guides for a double-leaf rolling-lift bascule bridge.

Main Street Bridge over the Halifax River, Daytona Beach, Florida - Volusia County
Mr. Flanders was responsible for the design and technical specifications as well as interfacing of a PLC/PC based control system and a variable frequency motor drive on a double leaf bascule bridge.

Beaver Dam Road Bridge, Ocean City, New Jersey – NJDOT
Mr. Flanders was responsible for the design of a 75 horsepower hydraulic cylinder drive system. Also, developed a custom control system employing PID control to maintain cylinder position to a tolerance of 3/16". This application is intended for use on a single-leaf rolling-lift bascule bridge leaf where cylinders would be in a "pull to open" configuration. Performed shop drawing review of drive system details as project manager of post design services for the project.

SR 105 over Sisters Creek Bridge and San Pablo Creek Bridge, Jacksonville, Florida - FDOT District 2.
Supervised shop drawings for a PLC based control system and complete hydraulic drive system for a double leaf bascule bridge (Sisters Creek) and a twin-double leaf bascule bridge (San Pablo Creek).

SR 44 over the St. Johns River - Whitehair Bridge, DeLand, Florida – FDOT District 5
Mr. Flanders was responsible for the design of a closed loop hydraulic motor drive system for the replacement of a Hopkins Frame mechanical drive. Also, prepared hydraulic power unit control system and main bridge control system designs. Bridge features low-speed, high-torque hydraulic motors.

SR 40 over the St. Johns River - Astor Bridge, DeLand, Florida – FDOT District 5
Mr. Flanders was responsible for the design of a fully redundant variable speed drive for an existing single leaf bascule bridge. Control design focused on integrating safety interlocking and permissive functions to the existing control system. Span drive included an Allen Bradley 1336 Impact drive with current vector control. Additional electrical design requirements included the replacement of interior lighting and submarine cables.

SR 786 - PGA Boulevard over ICW, West Palm Beach, Florida - FDOT District 4
Provided specialized Electrical Construction Inspection services for the installation of a new bridge control system and four variable speed drive controllers during the rehabilitation of this double-leaf bascule bridge.

ARMANDO GUZMAN, C.B.I.

PROJECT ROLE | Certified Bridge Inspector / Diver

EDUCATION

Bachelor of Arts in Social Science
Universidad de Santiago de Cuba
Cuba, 1990

REGISTRATIONS

Certified Bridge Inspector, CBI #00407
Fall Protection Class | CPR Certified
Safety Inspection of In-Service Bridges Class
PADI Rescue Diver | FHWA |
Underwater Bridge Inspection Training

YEARS OF EXPERIENCE

13 years

WORK HISTORY

MARLIN ENGINEERING, INC., Miami, Florida | 2000 – Present | *Certified Bridge Inspector/Diver*

Underwater Bridge Inspection for Turnpike 2011 - 2013 | Turnpike | *Certified Bridge Inspector/Diver*
For this contract in association with another consultant with the Florida Turnpike Enterprise, Mr. Guzman is performing underwater bridge inspection, scour survey and analysis, and report processing on 85 turnpike structures from milepost 0 to 199 (south system).
Contact: Aran Lessard (954) 934-1234

MDX Routine Structure Inspections 2009 – 2014 | Miami Dade Expressway Authority | *Certified Bridge Inspector/Diver.* Team leader for Marlin Engineering. It entails the structural underwater and top side inspection of 127 bridges and also over 120 Overhead Sign structures.
Contact: Mr. Richard Johnson (305) 637-3277

Florida Keys Asset Management Contract 2007 – 2013 | FDOT District 6 | *Certified Bridge Inspector/Diver.* Team leader in the underwater portion of the inspections under this contract, in association with another consultant. This contract included over 35 bridges along the US-1 on Monroe County.
Contact: Mr. Dennis Fernandez (305) 470-5569

Districtwide Local Government In-Depth Bridge Inspection 2005 – Ongoing | FDOT District 6 | *Certified Bridge Inspector/Diver*. Team leader on this later cycle of the contract. It entails the structural underwater inspection of over 330 On and Off System Bridge structures, including 10 bascule bridges.
Contact: Mr. Pablo Orozco (305) 470-5370

Underwater Bridge Inspection for Turnpike 2004 – 2005|Turnpike| *Certified Bridge Inspector/Diver*
For this contract in association with another consultant with the Florida Turnpike Enterprise Mr. Guzman assisted in the underwater bridge inspection, scour survey and analysis, and report processing on 85 turnpike structures, including 5 penetration dives, from milepost 0 to 199 (south system).

Emergency Scour Inspection Contract Following Hurricane Frances 2004 | FDOT District 6 | *Certified Bridge Inspector/Diver*
This emergency damage assessment consisted of the underwater inspection of all bridges in Palm Beach and Broward Counties.

Districtwide Bridge Inspection 2002 – 2003| FDOT District 6|| *Certified Bridge Inspector/Diver*
Assisting in the structural inspection of both topside and underwater, including bridges (conventional, moveable, fracture critical and a variety of other structures). Review bridge plans for ease of inspection and maintainability. Maintain physical filing system for all bridge projects to include design plans, bridge inspection reports and construction correspondence.
Contact: Manny Fins (305) 470-5439

EDUCATION National Highway Institute – Safety Inspection of In-Service Bridges | Austin, Texas| 2007|
National Highway Institute – Underwater Bridge Inspection | Sparks, Nevada| 2006|
Divers Academy of the Eastern Seaboard – Commercial Diver| Camden, NJ| 1996|

REGISTRATIONS Certified Bridge Inspector #00438

SUMMARY OF EXPERIENCE

Mr. Hays has more than seven years of experience as a Certified Bridge Inspector and Commercial Diver

WORK HISTORY

MARLIN ENGINEERING, INC. | Miami, Florida | September 2013 to Present |*Certified Bridge Inspector*

BOLT UNDERWATER SERVICES | Pinellas Park, Florida | December 2008 to September 2013 |*Certified Bridge Inspector*

- FDOT Districts 1 and 7 Inspection Projects, routine underwater inspections. Lead for 2 cycles.
- FDOT Districts 2 and 5 Inspection Projects, routine underwater inspections. Lead for 2 cycles.
- FDOT Districts 4 Inspection Projects, routine underwater inspections. Lead for cycles.
- Underwater Construction Inspections Statewide. All phases of Jacket installation, debris sweeps before and after construction, pump mats and armor mat.
- Pipeline and cable locating
- Non destructive testing

HW LOCHNER | Clearwater, Florida | December 2003 to November 2008 |*Certified Bridge Inspector*

- FDOT Districts 1 and 7 Inspection Projects, routine underwater and topside inspections. State and local Government bridges, culverts, damns throughout 16 counties.
- District 5 Local Government Bridges 2 cycles. Inspector/ lead diver involved in topside and underwater inspections. 18 moveable bridges in Miami and Keys Area.
- Nevada DOT Underwater bridge inspection – to provide emergency underwater inspections statewide. Performing inspections for 23 bridges after severe flooding.
- Bonner Bridge inspection – Inspection diver for submerged structure elements of 2.5 mile long Bonner Bridge over Oregon Inlet, NC
- Utah DOT Statewide Bridge Inspections – Inspected 75 bridges and culverts statewide.
- Naval Facilities Engineering Command Underwater Bridge Inspections.

UNDERWATER ENGINEERING SERVICES | Port St. Lucie, Florida | 2001 to 2003 |*Commercial Diver*

- Cable Locating (FPL)
- Pile Encasements
- Salvage and Pile extractions
- Armor and pump mat installations
- Heavy equipment operations, backhoe, skid steer
- Boating/ barge operations

W.J. CASTLE & ASSOCIATES | Lumberton, NJ | 1996 to 2001 |*Commercial Diver*

- Installation of scour monitoring devices on 4 bridges in Long Island, NY
- Penns Landing, PA, Pier Inspection
- NY State DOT Underwater inspection during demolition of existing bridge and new construction
- Burlington County NJ Bridge Commission Tacony-Palmyra Fender inspection-emergency inspection and debris removal
- Pier 34 Philadelphia, PA Debris removal of Pier 34 failure
- Salem County, NJ Department of Engineering- Inspection and rehabilitations of 16 Tidal gates

OMAR PORRAS, C.B.I.

PROJECT ROLE | Senior Certified Bridge Inspector / Commercial Diver

EDUCATION

Underwater Bridge Inspection
New Mexico State University | 1994

REGISTRATIONS

Certified Bridge Inspector (CBI) #00368, December 2000
Commercial Diver; Rescue Diver; Divemaster; Diving Instructor; National Highway Institute, Engineering Concept for Bridge Inspection; Stream Stability and Scour at Highway Bridges for Bridge Inspectors; U.S.C.G. Certification; Licensed Captain, Maritime Professional Engineers; Master 100 Gross Ton Licensed Captain, Maritime Professional Engineers; Strengthening and repairing concrete structures; Fracture Critical Inspection Techniques for Steel Bridges; SSPC, Protective Coating

YEARS OF EXPERIENCE

21 years

WORK HISTORY

MARLIN ENGINEERING, INC., Miami, Florida | March 2005 – Present |*Senior Certified Bridge Inspector / Commercial Diver*

Underwater Bridge Inspection for Turnpike 2011 – 2013| Turnpike System | *Senior Certified Bridge Inspector / Commercial Diver.* For this contract in association with another consultant with the Florida Turnpike Enterprise, Mr. Porras is performing underwater bridge inspection, scour survey and analysis, and report processing on 85 turnpike structures from milepost 0 to 199 (south system).
Contact: Aran Lessard (954) 934-1234

MDX Routine Structure Inspections 2009 – 2014 | Miami Dade Expressway Authority| *Senior Certified Bridge Inspector / Commercial Diver.* Mr. Porras is currently leading a team for Marlin Engineering. It entails the structural underwater and top side inspection of 127 bridges and also over 120 Overhead Sign structures.
Contact: Mr. Richard Smith (305) 637-3277

Florida Keys Asset Management Contract 2007 – 2013 | FDOT District 6| *Senior Certified Bridge Inspector / Commercial Diver.* Mr. Porras is currently a team leader in the underwater portion of the inspections under this contract, in association with another consultant. This contract included over 35 bridges along the US-1 on Monroe County.
Contact: Mr. Dennis Fernandez (305) 470-5569

Districtwide Local Government In-Depth Bridge Inspection 2005 – Ongoing | FDOT District 6| *Senior Certified Bridge Inspector / Commercial Diver.*
Team leader on this later cycle of the contract. It entails the structural underwater inspection of over 330 On and Off System Bridge structures, including 10 bascule bridges.
Contact: Mr. Pablo Orozco (305) 470-5370

FLORIDA DEPARTMENT OF TRANSPORTATION- DISTRICT 6, Miami Florida | June 2001 to March 2005 *Senior Underwater Bridge Inspector*

Carried out underwater evaluations and inspections of Bridges and Seawalls. This included surveying of scour areas, exposures and undermining of foundations. Providing and developing new techniques for underwater bridge inspections. Team Leader for District 6 Statewide Emergency Response Management Unit for Special Inspections, i.e. Accidents, Hurricanes, etc.

October 1999 to June 2001 | *Project Manager*

Involved with the new EDMS (Electronic Document Management System) for District 6 on the Bridge Maintenance EDMS Steering Committee. Field work inspection of segmental bridges. Provided support in conducting new technical testing studies for tension cables for Niles Channel Bridge #900117, Florida Keys. Also, management of emergency contracts for shoreline erosion, preparing Scope of Services, supervising and coordinating with Consulting Engineering and Contractors in all phases through completion of the project. Other projects and contracts for articulating block mat for slope protection. (Harris Gap Bridge #900109, Florida Keys). Also conducted sign structure contracts.

ALEXIS REGO, C.B.I.

PROJECT ROLE | Certified Bridge Inspector / Diver

EDUCATION	Bachelor of Business Administration - Major in Marketing Universidad Interamericana | San Juan, Puerto Rico | 1997
REGISTRATIONS	Certified Bridge Inspector, CBI #00409 CPR Certified | Fall Protection Construction Safety Course| PADI Rescue Diver FHWA Underwater Bridge Inspection Training
YEARS OF EXPERIENCE	13 years

WORK HISTORY

MARLIN ENGINEERING, INC., Miami, Florida | 2000 – Present | *Certified Bridge Inspector/Diver*

Underwater Bridge Inspection for Turnpike 2011 – 2013|Turnpike System| *Certified Bridge Inspector/Diver*. For this contract in association with another consultant with the Florida Turnpike Enterprise, Mr. Rego is performing underwater bridge inspection, scour survey and analysis, and report processing on 85 turnpike structures from milepost 0 to 199 (south system).
Contact: Aran Lessard (954) 934-1234

MDX Routine Structure Inspections 2009 – 2014 | Miami Dade Expressway Authority | *Certified Bridge Inspector/Diver*. Mr. Rego is currently leading a team for Marlin Engineering. It entails the structural underwater and top side inspection of 127 bridges and also over 120 Overhead Sign structures.
Contact: Mr. Richard Johnson (305) 637-3277

Florida Keys Asset Management Contract 2007 – 2013 | FDOT District 6| *Certified Bridge Inspector/Diver*.Mr. Rego is currently a team leader in the underwater portion of the inspections under this contract, in association with another consultant. This contract included over 35 bridges along the US-1 on Monroe County.
Contact: Mr. Dennis Fernandez (305) 470-5569

Districtwide Local Government In-Depth Bridge Inspection 2005 – Ongoing | FDOT District 6| *Certified Bridge Inspector/Diver*. Team leader on this later cycle of the contract. It entails the structural underwater inspection of over 330 On and Off System Bridge structures, including 10 bascule bridges.
Contact: Mr. Pablo Orozco (305) 470-5370

Assistant Underwater Inspector for the Lake Juniper Concrete Retaining Wall and dam October 2005 | *Certified Bridge Inspector/Diver*. Assisted in the structural and maintenance inspection of the Lake Juniper concrete retaining wall and dam and the underwater survey (soundings) for the lake's topography.

Underwater Bridge Inspection for the Seven-Mile and Channel Five Bridges of the Florida Keys 2004 – 2005| *Certified Bridge Inspector/Diver*
For this contract with the Florida Department of Transportation, Mr. Rego assisted in performing the underwater bridge inspection of these two bridges.

Underwater Bridge Inspection for Turnpike 2004 – 2005|Turnpike | *Certified Bridge Inspector/Diver*.
For this contract in association with another consultant with the Florida Turnpike Enterprise, Mr. Rego performed underwater bridge inspection, scour survey and analysis, and report processing on 85 turnpike structures, including the assisting of 5 penetration dives, from milepost 0 to 199 (south system).

Districtwide Bridge Inspection 2002 – 2003 | FDOT District 6 | *Certified Bridge Inspector/Diver*.
Assisting in the structural inspection of both topside and underwater, including bridges (conventional, moveable, fracture critical and a variety of other structures). Review bridge plans for ease of inspection and maintainability.
Contact: Manny Fins (305) 470-5439

REINALDO PADRINO, C.B.I.

PROJECT ROLE | Senior Certified Bridge Inspector / Commercial Diver

REGISTRATIONS | TRAINING

Certified Bridge Inspector (CBI) #00242, 1990

Bridge Inspection Refresher Training, 2011, OSHA Fall Protection – Subpart M, 2000, Bridge Management-Inspection Session, 1999, Bridge Inspectors Refresher Course & PONTIS Review, 1998, Stream Stability and Scour at Bridges, 1986, Engineering Concepts for Bridge Inspectors, 1984, Safety Inspection of In-Service Bridges, 1984, Commercial Diver, Coastal School of Deep Sea Diving, 1977 High School Diploma, Miami Senior High School, 1976

YEARS OF EXPERIENCE 29

WORK HISTORY

MARLIN ENGINEERING, INC., Miami, Florida | July 2012 – Present
Senior Certified Bridge Inspector / Commercial Diver

Underwater Bridge Inspection for Turnpike 2011 - 2013 | Turnpike System | *Senior Certified Bridge Inspector*
Mr. Padrino is currently cross training with inspectors, processing reports and leading quality control efforts for this assignment which entails the underwater bridge inspection, scour survey, and analysis on 85 turnpike structures from milepost 0 to 199 (south system). (2011 – Ongoing)
Reference: Aran Lessard, (954) 934-1234

MDX Routine Structure Inspections 2009 - 2014 | Miami Dade Expressway Authority | *Senior Certified Bridge Inspector*
Mr. Padrino is currently cross training with inspectors, processing reports and leading quality control efforts for this assignment .It entails the structural underwater and top side inspection of 127 bridges and also over 120 Overhead Sign structures.
Reference: Jenny Toruno (305) 637-3277

District wide Local Government In-Depth Bridge Inspection 2005 - 2013 | FDOT District 6 | *Senior Certified Bridge Inspector*
Lead Inspector for the Inspection of approximately 50% of bridges under this contract in District 6. Project consisted of the bridge inspection of all Local Government bridges located within the geographical limits of the Department of Transportation District Six in compliance with Federal and State regulations. This contract includes a total of 346 bridges consisting of 11 bascules, 243 underwater inspections, 17 fracture critical inspections and additional interim inspections.
Reference: Pablo Orosco (305) 470-5370

NEW MILLENIUM DESIGN CONSULTANTS, Miami, Florida | July 2007 – September 2011 | *Senior Certified Bridge Inspector*

District wide Local Government In-Depth Bridge Inspection 2009 - 2011 | FDOT District 6 | *Senior Certified Bridge Inspector*
Lead Inspector for the Inspection of 75% of bridges under this contract in District 6. Project consisted of the bridge inspection of all Local Government bridges located within the geographical limits of the Department of Transportation District Six in compliance with Federal and State regulations. This contract included a total of 346 bridges consisting of 11 bascules, 243 underwater inspections, 17 fracture critical inspections and additional interim inspections.
Reference: Ulises Betancourt (305) 470-5427

Niles Channel Bridge- Florida, Keys. 2007 | FDOT District 6 |*Senior Certified Bridge Inspector*
Lead Bridge Inspector for the Inspection of Post-Tensioning and Structural items for the Niles Channel Bridge in the Florida Keys. Mr. Padrino was responsible for the complete inspection of this segmental bridge that included several segmental spans. Duties included team inspection leadership in the field, and the preparation of bridge reports for super & substructure in FDOT format in accordance to Volume 1 Bridge and Other Structures Inspection, and Reporting Procedures Manual. Mr. Padrino was responsible for a team of two inspectors and inspected major items such as Post-Tensioned Segmental box and Substructure. Additionally, he prepared all reports in PONTIS format.
Reference: Dennis Fernández (305) 470-5569

MARLIN ENGINEERING, INC., Miami, Florida | August 2006 – July 2007 | *Certified Bridge Inspector*

District wide Local Government In-Depth Bridge Inspection | FDOT District 6 |*Certified Bridge Inspector*
Mr. Padrino was the inspector on both, topside and underwater inspections, including bridges (conventional, moveable and fracture critical), and a variety of other structures. Also, he reviewed bridge plans for ease of inspection and maintainability.
(2006 – 2006)
Reference: Juan Santandreu (305) 470-5569

TY LIN / HJ ROSS., Coral Gables, Florida | 2005 –2006 | *Hurricane Recovery Inspector*

DELTA ENGINEER GROUP, INC., Miami, Florida | 2005 –2005 | *Bridge Inspection Team Leader*
- Topside (Snooper) Inspection of the 7 Mile Bridge
- Topside (Snooper) Inspection of Channel 5 Bridge
- PONTIS Reports of the 7 Mile & Channel 5 Bridges
- CEI Inspection of FDOT District 6 ITS/ATMS along US-1 (FL Keys) and SR-826

AVART, INC., Miami, Florida | 2003 –2005 | *Bridge Inspection Team Leader*
- Overhead Sign Inspection for MDX (112)
- Topside Inspections of MDX Bridges (120)
- PONTIS Reports

INFRASTRUCTURE ENGINEERS, INC., St. Cloud, Florida | 2002 –2003 | Lead Driver / *Bridge Inspection Team Leader*
- Topside Inspection of Disney Property Bridges
- Topside & Underwater Inspection of 60 Long Non-Qualifying Culverts (LNQC's) for FL Turnpike North & South Sections
- Overhead Sign Inspection for FDOT District 2
- Overhead Sign Inspection for FDOT District 5
- Overhead Sign Inspection for Turnpike North Section
- Underwater Inspection for District 6 Local Government Bridges
- Underwater Inspection for District 5 Local Government Bridges
- Underwater Inspection of High Level Bridges in District 5
- Underwater Inspection of District 6 Bascule Bridges
- Underwater Inspection of District 6 State Key Bridges, Including Old 6 Mile Bridge
- Underwater Inspection of State of Iowa Bridges
- Topside & Underwater Inspections of NAS West Bridge

EDUCATION Bachelor of Science in Civil Engineering | University of Miami
Coral Gables, Florida

REGISTRATIONS Florida Professional Engineer - #49359, 1993
Maintenance of Traffic - Advanced
PADI Certified Diver

YEARS OF EXPERIENCE 23 years

WORK HISTORY

MARLIN ENGINEERING, INC., Miami, Florida | August 1996 to Present | *Project Manager*

D/W Overhead Sign Inspection 2008 – 2014 | FDOT District 4 | *Engineer of Record*
Mr. Soria is the Engineer of Record for this assignment for Marlin Engineering. It entails the structural inspections and report processing in Pontis database for over 900 overhead cantilever, bridge, cable and butterfly signs, including developing, implementing and coordinating the maintenance of traffic.
Contact: Mr. Carlo Ferrera (954) 777-4536

D/W Local Government In-Depth Bridge Inspection 2005 – 2013 | FDOT District 6 | *Engineer of Record*
Mr. Soria is the Engineer of Record for this assignment for Marlin Engineering. This later cycle entails the structural underwater inspection of over 330 On and Off System Bridge structures, including 10 bascule bridges. Duties include contract coordination with local agencies and the District and Inspection Team Leader.
Contact: Mr. Pablo Orozco (305) 470-5370

Florida Keys Asset Management Contract 2007 – 2013 | FDOT District 6 | *Engineer of Record*
Mr. Soria was the Engineer of Record for the underwater portion of the inspections under this contract, in association with another consultant. This contract included over 35 bridges along the US-1 on Monroe County.
Contact: Mr. Dennis Fernandez (305) 470-5569

D/W Overhead Sign/High Mast Light Inspection 2003 – 2007 | FDOT District 6 | *Engineer of Record*
Mr. Soria was the Engineer of Record for this assignment for Marlin Engineering. It entailed the structural inspections and report processing in Pontis database for over 1200 overhead cantilever, bridge and butterfly signs and high mast lights.
Contact: Mr. Ulises Betancourt (305) 470-5427

Underwater Bridge Inspection for SR-836 structures 2006 – 2007 | MDX | *Engineer of Record*
Mr. Soria was in charge of managing contract for the underwater portion of the inspections under this contract, in association with another consultant.

Katrina and Wilma Hurricane Damage Assessment on Overhead Sign Structures September – October 2005 | FDOT District 6 | *Engineer of Record*

Mr. Soria was the Engineer of Record for the inspection team that worked on this emergency damage assessment which was performed to over 385 structures including overhead signs and high mast lights. Mr. Soria was responsible for preliminary evaluation of these sign and high mast structures immediately after the storms.

Contact: Mr. Dennis Fernandez (305) 470-5569

Underwater Bridge Inspection for the Seven-Mile and Channel Five Bridges of the Florida Keys 2004 – 2005 | *Engineer of Record*

Mr. Soria managed this contract with the Florida Department of Transportation and assisted in performing the underwater bridge inspection of these two bridges.

Emergency Safety Review of Light Poles and Traffic Signal Structures on State Roads in St. Lucie County 2004 | FDOT District 4 | *Engineer of Record*

This project consisted of conducting an emergency safety review of light poles on state roads and traffic signal structures at state road intersections in St. Lucie County due to the impact of hurricane Jeanne. Mr. Soria also managed this contract.

NW 25 Street, Final Roadway Design, Miami-Dade County (1999-2005) | FDOT District 6 | *Engineer of Record*

Design Engineer of Record responsible for the management of this major urban reconstruction project. The design work included but not limited to the horizontal and vertical geometry of NW 25th Street and the overhead viaduct from NW 87th Avenue to NW 67th Avenue. Mr. Soria managed construction plans for the various elements of this major highway project such as drainage, profiles, alignments, cross sections, and traffic control plans according to federal, state, and local standards and guidelines. Mr. Soria also assisted the Department's Project Manager in the coordination between all agencies, sub-consultants and the public.

Contact: Mr. Jason Chang, P.E., (305) 470-5331

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION, DISTRICT SIX, Miami, Florida | 1989 to 1996

Professional Engineer Trainee (1989-1993)/ Design Project Engineer (1993-1996)

EDUARDO VAZQUEZ, E.I., C.B.I.

PROJECT ROLE | Project Manager / Lead Certified Bridge Inspector / Diver

EDUCATION

Bachelor of Science in Civil Engineering | University of Havana\ Cuba | 1991 | Major in Structures

REGISTRATIONS

Engineer Intern #1197ET213, April 1998
Certified Bridge Inspector #00369
FHWA-NHI-130078 – Fracture Critical Inspection Techniques for Steel Bridges, 2011
FDOT Engineering Concepts for Bridge Inspectors, 2000
Safety Inspections of In-Service Bridges, 2000
PADI / Rescue Diver Certifications

YEARS OF EXPERIENCE

17 years

WORK HISTORY

MARLIN ENGINEERING, INC., Miami, Florida | December 2001 – Present |*Senior Certified Bridge Inspector/ Underwater Inspector*

Underwater Bridge Inspection for Turnpike 2011 – 2013|Turnpike Systems |*Senior Certified Bridge Inspector/ Underwater Inspector.* Mr. Vazquez is currently leading this assignment which entails the underwater bridge inspection, scour survey and analysis, and report processing on 85 turnpike structures from milepost 0 to 199 (south system).
Contact: Aran Lessard (954) 934-1234

MDX Routine Structure Inspections 2009 – 2014 | Miami Dade Expressway Authority| *Senior Certified Bridge Inspector/ Underwater Inspector*
Mr. Vazquez is currently leading this assignment for Marlin Engineering. It entails the structural underwater and top side inspection of 127 bridges and also over 120 Overhead Sign structures. Duties include contract coordination with MDX and Inspection Team Leader.
Contact: Mr. Richard Johnson (305) 637-3277

Florida Keys Asset Management Contract 2007 – 2013 | FDOT District 6|*Senior Certified Bridge Inspector/ Underwater Inspector*
Mr. Vazquez is in charge of managing the underwater portion of the inspections under this contract. This contract included over 35 bridges on Monroe County.
Contact: Mr. Dennis Fernandez (305) 470-5569

D/W Local Government In-Depth Bridge Inspection 2005 – Ongoing | FDOT District 6|*Senior Certified Bridge Inspector/ Underwater Inspector.*

Mr. Vazquez is currently leading this assignment for Marlin Engineering. This later cycle entails the structural underwater inspection of over 330 On and Off System Bridge structures, including 10 bascule bridges. Duties include contract coordination with local agencies and the District and Inspection Team Leader.

Contact: Mr. Pablo Orozco (305) 470-5370

Other Projects:

Multiple Park Underwater Facilities Structural Inspections 2007

Contact: Mr. Manuel Cruz, Engineer II, Miami-Dade County Park and Recreation Department. (305) 755-7913.

Underwater Bridge Inspection for SR-836 structures 2006 – 2007

Subconsultant to Berger Avant

Underwater Bridge Inspection for Turnpike 2004 – 2005

Subconsultant to Transystems

D/W Local Government In-Depth Bridge Inspection 2002 – 2003

Contact: Mr. Manny Fins, Florida Department of Transportation, District Six (305) 470-5439

FLORIDA DEPARTMENT OF TRANSPORTATION, DISTRICT FOUR, Fort Lauderdale, Florida | 1999 – 2001

Certified Bridge Inspector

Special Projects included:

- Inspection of tendon failure at Mid-Bay segmental bridge, District I.
- Inspection of the 17th Street Causeway 90% completion.
- Special inspection at District Four segmental bridges, following the Mid-Bay segmental bridge tendon failure.
- Special inspection at Fort Lauderdale Airport segmental bridges, prior to demolition.

Contact: Mr. Brian O'Donoghue, P.E., Florida Department of Transportation, District Four. (954) 777-4169.

Project Manager's Experience

Our proposed project manager, Steven A. Shaup, PE, has over 20 years of experience in bridge inspection, repair, rehabilitation and new bridge design. He is a registered Professional Engineer in Florida, having received his Florida license in 1997. He also holds professional engineering licenses in three other states.

Steve has spent his entire career with TranSystems, working in the Fort Lauderdale office. He has worked on numerous on-call, miscellaneous service contracts for FDOT District 4 (Fort Lauderdale), District 6 (Miami) and District 2 (Lake City/Jacksonville), as well as inspection projects in those districts, plus for agencies like the Kennedy Space Center, FDOT District 5 (Orlando)and the Jacksonville Transportation Authority. He has served in numerous capacities through his career, including assistant inspector, lead inspector, load rating engineer, senior structural engineer for repair and rehabilitation contracts, and project manager. In addition, he is also a company expert with historic bridges, having co-authored AASHTO's "*Guidelines for Historic Bridge Rehabilitation and Replacement"* and worked on numerous historic bridge projects, both inside and outside of Florida, including the Sunset Islands Bridges in Miami Beach and the National Register-listed Bridge of Lions in St. Augustine. This historic bridge work provides an additional working knowledge of whether structures need to have 4(f) and other considerations made when making repairs and deciding between repair/rehabilitation and replacement.

The extensive range of bridge types and work encountered over a 20-year career has given Steve a unique ability to consider multiple perspectives when making repair/rehabilitation/replacement decisions. Steve has been project manager for many projects, but the five projects below are similar to the requirements of the RFQ:

1. **On-Call Engineering Services, Volusia County** – TranSystems has held this 5-year contract over three different cycles. We have performed in-depth inspections for the county's three movable bridges, all with long fixed approaches, that culminated in the preparation of a report to identify and prioritize the work needed to keep all three bridges operational and safe over a 20-year period. Upon acceptance of that report, several work orders were generated to prepare plans to execute various repairs, including load rating of approaches, structural steel repairs, concrete repairs and mechanical and electrical work. A recent work order was to perform concrete repairs to a three-cell bridge culvert crossing a stormwater canal. TranSystems performed construction inspection services for the county during one project, to supervise and document concrete repairs to the reinforced concrete superstructure at one bridge. All the tasks associated with this project have provided Steve with the experience and judgment to ensure that repair/rehabilitation/replacement recommendations are thoroughly considered and that cost estimates are reasonable.

2. **Ortega Bascule Bridge Rehabilitation, FDOT District 2** – Steve was project manager for this project, which included several phases of work: a testing and analysis to determine the cause of binding of the bascule leaves during hot weather, followed by preparation of plans to install neoprene bearings at the low-level bridge approaches and make other needed mechanical and electrical system modifications. After installation of the bearings in the first construction phase, construction

paused for a summer while the movement of the bridge was regularly checked to ensure that the binding problem did not reoccur. The problem did not occur that summer, so the second phase of construction began, to make needed electrical and mechanical upgrades. Steve had to coordinate field work, prepare a report to address bridge conditions and recommend actions, and finally execute those recommendations to prepare contract documents. Construction of this project was recently completed.

3. **Districtwide Minor Bridge Design, FDOT District 2** – This project included management of multiple work orders at the same time, including such varied work as testing of forces in cables and 3-D modeling and load rating of the Dames Point cable-stayed bridge, evaluation of post-tensioning tendon conditions in nine bridges, analysis to determine capacity of deteriorated subaqueous steel H-piles and the load capacity for each of the seven Florida legal loads, scour evaluations, other load ratings, and preparation of a feasibility study for a low level bridge for repair or replacement. Steve managed multiple staff and multiple subconsultants, including bridge inspectors and specialists, as well as was responsible for signing and sealing final documents for each.

4. **Asset Management of Movable Bridges, FDOT District 5 and FDOT District 6** – These two projects include inspection and reporting of deficiencies for eight and fifteen bridges, respectively, in the two districts. Work included coordinating schedules to ensure structural, underwater, mechanical, and electrical inspections occurred on or before the previous inspection date, ensuring that reports were completed with a 45-day time limit, and reviewing and signing and sealing all reports, which contain detailed discussion of deficiencies and recommendations for repairs by the asset manager. This work with asset managers has been invaluable to provide insight into when repairs are needed and the complexity that exists with providing some routine maintenance-type activities.

5. **SR-401 over Barge Canal, FDOT District 5** – Steve served as project engineer for this project, which included in-depth structural, underwater, mechanical, and electrical inspections and preparation of a comprehensive report of conditions. The results were prioritized to allow the district to split the work into two rehabilitation projects. One project was to be done right away and address safety and operational concerns (as well as fit their budget). The second project was to occur 10-15 years in the future to address remaining conditions, as well as anticipated future concrete and steel deterioration. Steve was responsible for compiling the different parts of the report and putting together the prioritized list with costs.

Availability For A Variety Of Assignments

Our team has a large number of local personnel with specialized experience available to handle any possible assignment which may arise. This includes preparation of public awareness plans, to bridge replacement feasibility studies, to bridge inspection and PONTIS reports, to final design of new bridges or rehabilitations for fixed and movable bridges, including structural, mechanical, and electrical engineers.

Coordination

We pride ourselves on good, solid management practices. The key to these practices is communication within our team and also with the City of Fort Lauderdale (city). The city will communicate with our team through the Project Manager, and all team members will clear all communications through our Project Manager, Steve Shaup. Once a work order is assigned by the city, Steve will meet with the city's PM to discuss the scope of the work, coordinate a field review, and develop the final scope of work. He will also develop and negotiate the staff hour and cost proposal. Telephone memos will be made for all significant calls, and a copy promptly provided to the city's PM. Minutes will be taken at all meetings and provided to all attendees and other team members affected by the outcome. Steve is the person with the broadest overview of the project and will be involved in all significant decisions. He will keep the city's PM abreast of all communications and issues being raised during this project.

Before starting on new task orders, we familiarize ourselves with existing plans for bridges (or studies) to assess project needs and head off potential unseen issues. Following the Notice to Proceed, Steve will conduct an in-house kickoff meeting. This meeting will be attended by all team members. The following items will be discussed at the kickoff meeting:

- Distribution of materials provided by the city
- Project schedule
- Scope of work for each team member
- Quality Control & Quality Assurance
- Areas of special concern or where extra coordination is needed

Communication with stakeholders occurs early in every project. We contact involved utilities and other stakeholders to determine potential project issues, so they can be resolved early on, avoiding unwelcome surprises. We consult key members of the public, including elected officials, as needed, for the project to be successful. Early in the design process, Community Awareness Plans are prepared (if needed) for use as the design phase is completed and the project moves into construction.

Steve will maintain a set of labeled project files for each task work order. The project files are organized such that any team member can gain quick reference in his absence. All project files are stored electronically on our local server. We follow corporate standards for naming conventions and folder tree structure on our server for every project. All project records and files will be kept in our Fort Lauderdale office and are available for city review at any time.

Approach to the Project

For a given task order, Steve will involve team members from the outset to ensure they are aware of task objectives and known issues. We have worked with all our team members previously. Our team members are experienced in the types of assignments included in this project and are familiar with the Florida Department of Transportation's processes, design standards and guidelines, as well as the construction specifications, interaction required with other agencies and the importance of communication with the general public.

Depending upon the task, Steve will include the appropriate key personnel identified in our staffing plan on the following pages, to ensure they are responsible for the daily work involving their technical expertise. Steve will be responsible for the overall work and coordination with the city.

All TranSystems key personnel have significant experience in their areas of knowledge and have successfully completed the technical, managerial, and communication aspects involved in projects of the type expected under this contract.

Design Services

For design work orders, we will review all available information such as inspection reports, original plans and repair plans. We will visit the site. If necessary, we will perform an inspection to determine the scope and extent of work. Steve will finalize the scope of work with the city's PM, and present our staff-hours and negotiate the fees.

The contract documents will include calculations, plans, and technical project-specific specifications. We will also assemble the complete construction documents package.

All design work is done to the latest AASHTO specifications and FDOT requirements, including the plans preparation manual. We have written technical special provisions (TSP) for movable and fixed bridge work. We have provided post-design services on all our work, including plans updating, assisting the owner during construction and shop drawing reviews.

All plans are carefully reviewed in accordance with our Quality Control Plan, prior to submittal. If any permits are required for construction, we will prepare the required permit applications during the first phase of plans preparation. These will be submitted to permitting agencies such as the US Coast Guard, US Army Corp of Engineers, SFWMD, and others. We will coordinate with utility companies, as needed, to complete our assignments successfully.

Quantities and costs will be estimated. A signed and sealed computation book will be provided with our final submittal.

Traffic control plans will be prepared to support the work to be performed, whether new bridge design or bridge repairs. These plans will include notes and details of traffic control during the repair process and restoration of roadways to original or better condition. Related temporary paving, drainage, signals, signage and pavement markings for traffic control will be designed in accordance with the Florida Department of Transportation standards, the MUTCD, and the city's requirements. Traffic control designs will address construction phasing, including access to adjacent property owners and businesses, drainage and detour routing.

Bridge Replacement Feasibility Studies

If an assignment is for a study for bridge replacement, we will first review the existing information, including traffic studies. We will clarify the scope of work to determine the extent of documents to be produced. These may include environmental documents, engineering reports, cost estimates, traffic reports, etc. If desired, we will complete the needed traffic studies, or update previous studies already done.

As a minimum, an engineering report will be produced with life cycle costs and a feasible, preferred alternate for construction.

Emergency Response

Although not required by the Scope of Services, our proposed personnel are available for emergency response to structures impacts, including for the city's swing bridge, or structural assessment following a storm event. We have responded to over 40 bridge hits on Florida's Turnpike, providing emergency bridge inspection services, load rating calculations within 24 hours, and recommendations for immediate actions, including traffic restrictions. TranSystems is available to provide immediate emergency response in the event that a bridge or other structure is impacted or damaged. Our Project Manager, Steven Shaup will provide a 24-hour telephone contact number to ensure inspection and engineering response teams can be mobilized as soon as possible. Inspection team members carry mobile telephones, allowing for quick accessibility. Steve will be the prime contact during an emergency. In an emergency, we will evaluate the information provided by the city and determine the best course of action. We will mobilize additional inspection teams and office support staff should it become warranted. We will also provide home telephone numbers of Steve and Alan Klevens (Quality Assurance Engineer), for use in the event of a night-time emergency. We will have at least one of our team members to the site within two hours of notification, however, we will often be able to respond in less time, depending on the nature of the emergency.

Our first goal will be to identify structural instability, and risk to the public and emergency response workers. The next task will be to identify temporary support measures which can be safely taken to stabilize the structure and prevent further damage from occurring. With the structure stabilized, the next task is damage assessment. Where safe, we will inspect the damaged parts of the structure, in-depth, to determine the full extent of damage. TranSystems owns a 35' lift truck which is available 24 hours a day for emergency response. We will take photographs and videotape (if requested) of the damage, and keep the city informed of our findings.

TranSystems has tested and implemented live, on-site emergency inspection video streaming. During an emergency inspection we will broadcast in real-time from the site. This service allows city staff to view the condition of the structure from their offices at multiple locations across the state, or from home at any time of the day or night. We have an easy to access system using Google+ "Hangouts". This provides a live, secure stream, allowing the city to view everything the bridge inspection team sees. The bridge inspection team leader is able to answer questions, and respond to comments or requests from city personnel.

Upon authorization, we will analyze the damaged members, design repairs and temporary supports, and prepare repair quantities, special provisions, and sketches for city action. We will issue a final report of our activities, findings and recommendations, along with photographs, field notes, calculations, correspondence, and other documentation. If additional major repair work is required, upon authorization, we will develop plans, specifications and estimates according to the previously described procedures for design assignments.

Post Design Services

Our team will review shop drawings, material sheets, catalog sheets for electrical equipment, and calculations by the contractor or his specialty engineer. During post design services we will perform the following activities, as needed:

- We will meet with the resident engineer and other city personnel to discuss the nature of construction problems.
- If requested, we will perform a field investigation to confirm existing conditions.
- We will meet with the contractor, as necessary, to review and understand his proposed methods. We will obtain sketches, procedures, calculations and quantities for review.
- We will thoroughly review the contractor's proposed methods for accuracy, completeness, constructibility and conformance to AASHTO standards, FDOT Structures Design Guidelines, and FDOT

Standards and Specifications.
- We will recommend to the city they accept or reject the contractor's submittals or work product.

Staffing Plan

Mr. Steven Shaup, PE, will be our Project Manager on this project, as he was for a previous district-wide bridge repair contracts for FDOT District 2.

Following are brief descriptions of the responsibilities of the management, QA/QC, and other key personnel we propose to use on this contract. Included separately are our proposed project organizational chart and brief resumes of key project personnel.

Project Manager & Responsibilities: Steven Shaup, PE
- Primary Contact: The city and subconsultants will contact us through the PM.
- Scheduling & Staff Assignment: He will determine the staff necessary to meet the city's schedule, and assign sufficient resources.
- Invoicing: He will prepare the invoices and progress reports and track the project as to costs, schedule and staffing.

QA Engineer & Responsibilities: Alan Klevens, PE
- Quality Reviews: He will perform intermediate reviews of reports, plans and specifications prior to submission. He will provide final quality assurance review of all documents.
- QA/QC Report: He will report on the QA/QC procedures and certify the consultant team's compliance with the plan.

Senior Structural Engineers: Jian Huang, PE; Serge Stiven, PE

Our senior structural engineers have on average 22 years structural design and rehabilitation experience involving fixed and movable structures. Our TranSystems senior structural engineers will be responsible for all structural designs, rehabilitations, load rating, and preparation of structural plans and specifications for structural components of fixed and movable structures. They will be assisted by our structural engineers.

Senior Mechanical Engineer: Bradley Kopping, PE

Our senior mechanical engineer will be responsible for all inspections, designs, rehabilitations, and preparation of mechanical plans and specifications for mechanical components for the swing. bridge

Senior Electrical Engineer: Jeffrey Flanders, PE

Mr. Flanders will be responsible for all inspections, designs, rehabilitations, and preparation of electrical plans and specifications for electrical components for the swing bridge.

Senior Bridge Inspectors (Team Leaders): Fernando V. Sojo, CBI; Donville S. Lawes, CBI; Natalie Rodriguez, PE, CBI

Our key bridge inspectors have on average 18 years experience inspecting fixed and movable structures in Florida. They are all FDOT certified and have updated MOT certifications. They will be responsible for all structural inspections of fixed and movable structures.

Senior Highway Engineers: Ian Blava, PE, Mark Owen, PE, and Eric Wooley, PE

Our highway engineers are experienced in project management, quality control, roadway design, storm water systems design, traffic control design, signing and pavement marking design, plans preparation, and estimation of quantities. They will be responsible for the design and preparation of plans and specifications for traffic control, roadway design, signing and pavement markings.

Quality Control & Quality Assurance

Upon award of contract, a Quality Assurance/Quality Control Plan will be developed by the Project Manager specifically to address the policies and procedures to follow for this contract. This section outlines the philosophy and concepts we will use in the plan to follow TranSystems' policy for providing a consistently high level of professional services to our clients.

QA/QC Organization

To complete this project to the highest quality standards, we will assign appropriate personnel to complete each critical task. The personnel directly responsible for the implementation and control of the QA/QC Plan are our Project Manager, Steven Shaup and our Quality Assurance Engineer, Alan Klevens.

QC System

TranSystems is committed to executing this project to the highest standards of quality. Our personnel have both the training and experience to perform their assigned tasks.

- **Kickoff Meeting:** Following authorization by the city, the Project Manager will conduct an in-house kickoff meeting to facilitate better communications throughout the project.

- **Project Files:** TranSystems will maintain a set of indexed and labeled project files for this project. The project files will be filed and organized such that any team member can gain quick reference in the Project Manager's absence. All project files will be kept in our Fort Lauderdale office, and will be available for quality control and city's reviews at any time.

- **Reviews and Checking:** The assigned team members will perform comprehensive quality reviews of the submittals in each work assignment to include documentation, calculations, design plans, procedures and specifications to ensure conformance with the applicable codes and standards. With each review, a complete "check set" of the reviewer's comments will be placed in the project file so that there is a permanent record of the reviewer's comments and a "back-check" against the next revision.

- **Nonconformance Control:** The Project Manager is the individual to whom all instances of non-conformance will be reported both within the project organization and by our subconsultants. He will maintain a file of any such reports and will document the steps taken to address the non-conformance as well as the root cause of the problem. The Project Manager will establish procedures required for conformance.

Internal Assessment

TranSystems maintains corporate-wide QA/QC policies and procedures. TranSystems maintains a corporate-wide Quality Assurance Program Plan which describes our corporate quality commitment and procedures to assure quality on all of our projects.

References

TranSystems has provided engineering services for many communities in Florida and prides itself on the productive professional relationships we establish with our clients. We are very proud of our reputation for high quality work performed in a professional manner within established budgets and schedules. We encourage you to talk with our clients regarding our experience and client service performance.

Client Name/ Contact Information	Year Project Completed	Total Construction Cost
Volusia County Engineering Tom Morrissey Public Works - Road and Bridge 2560 West S.R. 44 DeLand, Fl. 32720 T: 386. 822. 6422 E: tmorrissey@co.volusia.fl.us	2013	Studies and design of repairs Construction of repairs approximately $1 million
TranSystems provided engineering services to the County of Volusia for county-wide bridge projects, including existing bascule, fixed and box culvert bridges. The scope of services included design, preliminary engineering, surveying, condition assessment, cost estimating, studies, inspection, instrumentation and any other services necessary to plan, design and supervise construction of repairs and upgrades to county-owned bridges.		
Florida Department of Transportation, District 2 Renee Brinkley 1109 South Marion Avenue Lake City, FL 32025-5874 T: 386.961.7392 F: 386.961.7611 E: renee.brinkley@dot.state.fl.us	2013	Estimated construction cost: $3.5 million Actual cost: $ 4.6 million
Provided engineering services for the rehabilitation of the mechanical and electrical systems and installation of new bearings for the approach spans of SR-211 Bascule Bridge over the Ortega River. Included the development of all necessary repair plans and specifications, including for the replacement of control console with a new control rail, replacement of the span drive, span support and span lock machinery, and replacement of the bridge gates and signals.		
Florida Department of Transportation, District 2 Melissa Morgan 710 NW Lake Jeffery Road, Suite 202 Lake City, FL 32055-2621 T: 386.961.7060 F: 386.961.7095 E: Melissa.Morgan@dot.state.fl.us	2014	Study - no construction cost
TranSystems was selected to complete numerous minor bridge evaluation and repair work orders under this district-wide contract. Work included repair design and plans preparation for minor steel and concrete deficiencies, joint replacements with associated traffic control, bridge fender replacements, mechanical and electrical repairs for movable bridges, bridge load ratings, and CE&I services. Throughout this 5 year contract, TranSystems functioned as an extension of the DOT's staff to complete work where they did not have sufficient manpower, or which required special expertise.		

Florida Department of Transportation, District 4 John Danielsen 3400 West Commercial Boulevard Ft. Lauderdale, FL 33309 T: 954.777.4644 E: john.danielsen@dot.state.fl.us	Ongoing	Studies and minor repair contracts Construction of repairs approximately $1 million
As part of this contract with District 4, TranSystems provided support to the department for a wide range of engineering and technical services to assist in numerous project-related tasks within the district's work program. This work order included tasks to be performed on an on-call basis.		
Florida Department of Transportation, District 6 Yaroslav Concepcion 1000 NW 111th Avenue Room 6205B Miami, FL 33172 T: 305.470.5421 F: 305.470.5369 E: yaroslav.concepcion@dot.state.fl.us	Ongoing	Estimated construction cost (for all four task orders): $3.6 million Actual Cost: N/A - none have completed, yet
TranSystems' responsibilities include providing plans, specifications and related maintenance of traffic details for various paint projects, fender system replacements, structural steel repairs, bridge deck repairs, substructure repairs, cathodic protection system, joint repairs, miscellaneous engineering services for movable bridges, including electrical and mechanical related work, steel grating replacement, span lock replacement, buffer cylinder replacement and traffic signal replacement.		
Florida Drawbridge Jose Quintana 3170 N. Federal Highway, Suite 116 Lighthouse Point, FL 33064 T: 954.788.0969 E: jquintana@floridadrawbridges.com	Ongoing	Inspection contract - no construction cost
Included routine inspection of the structural, mechanical, electrical and underwater elements and reporting using the Florida DOT's Pontis software. Due to maintenance of traffic concerns, bridges in downtown Miami were inspected using a lift boat in order to perform the work with no lane restrictions. Inspectors worked closely with maintenance staff from the asset manager, Florida Drawbridges, Inc., to ensure that proper maintenance was being performed and that recommended work would be properly completed. As part of this contract, TranSystems also provided on-call emergency response services in the event that a bridge was hit, by either an overheight vehicle or aberrant vessel, or if the bridge became inoperable.		

Transfield Services Tim Howell Regional Bridge Project Manager 751 North Drive, Suite 8 Melbourne, FL 32934 T: 321.752.9680 F: 321.752.9681 E: HowellT@transfieldservices.com	Ongoing	Inspection contract - no construction cost
TranSystems, as a subconsultant to Transfield Services, was responsible for the inspection and evaluation of thirty-seven bascule bridges with fixed approach spans, one tunnel, and seventy-four fixed bridges, including fourteen high-level segmental concrete box girder bridges. The movable bridge inspections included the structural, mechanical, electrical, and underwater inspections. Routine inspections, including underwater inspections were performed on a biennial basis for all bridges and inspections of the movable spans were done annually. TranSystems was also on call for emergency inspections, post rehabilitation inspections, post repair inspections and miscellaneous design services.		
ACS Infrastruture Development Inc. Michael Smith Operations and Maintenance Manager One Alhambra Plaza, Suite 710 Coral Gables, FL 33134 T: 786.478.3666 E: MSmith@acsinfra.com	2012	Technical expertise provided - no design work completed
As structures life-cycle advisor for this project,TranSystems :provided expert opinion regarding new structures maintenance and life cycle issues under consideration of Handback requirements; for existing structures, reviewed existing bridge design, and confirmed the latest available bridge inspection reports with a visual inspection to assess the current conditions; and provided an expert opinion about structure maintenance and life cycle issues under consideration of Handback requirements; provided a detailed estimate of life cycle costs during the concession period (35 years); provided a budget of structures inspection costs over the concession period including access and traffic control costs; and provided reports to the equity members, to be used as part of the lenders' due diligence process and equity members' interaction with the design- build team.		

Minority Women (M/WBE) Participation

TranSystems is aware of the city's desire to maintain and encourage MBE/WBE participation in line with the historic level of about 12%. Marlin Engineering, Inc., our partner for this project who will perform underwater inspections, is a M/ WBE and Florida Veteran firm Because the bridges for this project are over water and are likely to require underwater inspection, we expect that their participation will be well above the city's historic mark. Below is Marlin Engineering's Minority Women and Florida Veteran's Business Certification certificate.

Based on the tasks required in each assigned work order, subconsultants will be added to provide technical assistance in areas where TranSystems cannot provide in-house expertise. We have significant experience working with many FDOT - pre-qualified MBE/WBE firms and will continue to reach out to them when the work requires it.

State of Florida

Minority, Women & Florida Veteran Business Certification

Marlin Engineering, Inc.

Is certified under the provisions of
287 and 295.187, Florida Statutes for a period from:

04/04/2013 to 04/04/2015

DEPARTMENT OF MANAGEMENT SERVICES

Craig J. Nichols, Secretary
Florida Department of Management Services

Office of Supplier Diversity • 4050 Esplanade Way, Suite 380 • Tallahassee, FL 32399 • (850) 487-0915 • www.osd.dms.state.fl.us

Sample Insurance Certificates

ACORD™ **CERTIFICATE OF LIABILITY INSURANCE** 10/1/2014

DATE (MM/DD/YYYY): 9/26/2013

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

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

PRODUCER: Lockton Companies, LLC-1 Kansas City
444 W. 47th Street, Suite 900
Kansas City MO 64112-1906
(816) 960-9000

CONTACT NAME:
PHONE (A/C, No, Ext):
FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Zurich American Insurance Company	16535
INSURER B: St. Paul Fire and Marine Insurance Company	24767
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED: 4723 TRANSYSTEMS CORPORATION
101 WEST MAIN STREET, STE. 900
NORFOLK VA 23510

COVERAGES TRASY01 CERTIFICATE NUMBER: 3013535 REVISION NUMBER: XXXXXXXX

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

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	GENERAL LIABILITY	N	N	GLO3707153	10/1/2013	10/1/2014	EACH OCCURRENCE	$ 1,000,000
	X COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
	CLAIMS-MADE X OCCUR						MED EXP (Any one person)	$ 5,000
	X SEVERABILITY						PERSONAL & ADV INJURY	$ 1,000,000
	X CLAUSE						GENERAL AGGREGATE	$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$ 2,000,000
	POLICY PRO-JECT LOC							$
A	AUTOMOBILE LIABILITY	N	N	BAP3707150	10/1/2013	10/1/2014	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$ XXXXXXXX
	ALL OWNED AUTOS / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$ XXXXXXXX
	X HIRED AUTOS / X NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$ XXXXXXXX
								$ XXXXXXXX
B	X UMBRELLA LIAB / X OCCUR	N	N	ZUP-11S11550-13-NF	10/1/2013	10/1/2014	EACH OCCURRENCE	$ 1,000,000
	EXCESS LIAB / CLAIMS-MADE						AGGREGATE	$ 1,000,000
	DED / RETENTION $							$ XXXXXXXX
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N	N/A	N	WC3707154	10/1/2013	10/1/2014	X WC STATU-TORY LIMITS / OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N (Mandatory in NH)						E.L. EACH ACCIDENT	$ 500,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 500,000
							E.L. DISEASE - POLICY LIMIT	$ 500,000

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

CERTIFICATE HOLDER

3013535

FOR PROPOSAL PURPOSES ONLY

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Ronald J Foster

ACORD 25 (2010/05)

Sample Insurance Certificates

ACORD™ CERTIFICATE OF LIABILITY INSURANCE 10/1/2014

DATE (MM/DD/YYYY): 9/26/2013

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

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

PRODUCER: Lockton Companies, LLC-1 Kansas City
444 W. 47th Street, Suite 900
Kansas City MO 64112-1906
(816) 960-9000

CONTACT NAME:
PHONE (A/C, No, Ext):
FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Zurich American Insurance Company	16535
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED: 7979 TRANSYSTEMS CORPORATION
101 WEST MAIN STREET, STE. 900
NORFOLK VA 23510

COVERAGES TRASY01 CERTIFICATE NUMBER: 3013537 REVISION NUMBER: XXXXXXX

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

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	GENERAL LIABILITY COMMERCIAL GENERAL LIABILITY CLAIMS-MADE OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC			NOT APPLICABLE			EACH OCCURRENCE $ XXXXXXX DAMAGE TO RENTED PREMISES (Ea occurrence) $ XXXXXXX MED EXP (Any one person) $ XXXXXXX PERSONAL & ADV INJURY $ XXXXXXX GENERAL AGGREGATE $ XXXXXXX PRODUCTS - COMP/OP AGG $ XXXXXXX $
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS			NOT APPLICABLE			COMBINED SINGLE LIMIT (Ea accident) $ XXXXXXX BODILY INJURY (Per person) $ XXXXXXX BODILY INJURY (Per accident) $ XXXXXXX PROPERTY DAMAGE (Per accident) $ XXXXXXX $
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $			NOT APPLICABLE			EACH OCCURRENCE $ XXXXXXX AGGREGATE $ XXXXXXX $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y / N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N / A		NOT APPLICABLE			WC STATU-TORY LIMITS OTH-ER E.L. EACH ACCIDENT $ XXXXXXX E.L. DISEASE - EA EMPLOYEE $ XXXXXXX E.L. DISEASE - POLICY LIMIT $ XXXXXXX
A	PROFESSIONAL LIABILITY	N	N	EOC 9139550	10/1/2013	10/1/2014	$1,000,000 EACH CLAIM & IN ANNUAL AGGREGATE FOR ALL PROJECTS.

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

CERTIFICATE HOLDER

3013537

FOR PROPOSAL PURPOSES ONLY

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Ronald J Foster

ACORD 25 (2010/05)

Joint Venture

TranSystems is not submitting this proposal as a joint venture with any other firm.

Subconsultants

TranSystems plans to utilize **Marlin Engineering, Inc.** for this project, who will perform underwater inspections. Marlin Engineering Inc., a full service multidisciplinary engineering company, is located in Doral, Florida. Their bridge inspection team performs underwater and topside bridge inspections, including a wide variety of structural inspections, culvert inspections and stream scour surveys. Their inspections range from simple flat slab to fracture critical and segmental bridge structures. They also inspect all types of overhead signs and high mast lights. Their veteran team, which has been together more than a decade, is composed entirely of Florida Certified Bridge Inspectors (CBI) as well as certified divers and commercial divers. Their inspectors excel at emergency response within hours of a hurricane, boat/car strike or other incident. Their team is constantly trained in the latest maintenance of traffic, confined space entry, Pontis Bridge Management, concrete and materials testing and non- destructive testing procedures.

We have good working relationships with many FDOT - pre-qualified MBE/WBE throughout south Florida. When a task order is discussed and the need for a subconsultant is identified, we will first evaluate whether there is a qualified MBE/WBE firm for handle the task and ensure they are in good standing with the city, prior to adding them to the team. This will ensure the right staff are on-board and have provided good service to the city in the past.

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	

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.

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) TranSystems Corporation
Business Name

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

(2) _____
Business Name

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

(3) _____
Business Name

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

(4) _____
Business Name

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

(5) _____
Business Name

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

(6) _____
Business Name

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

BIDDER'S COMPANY: TranSystems Corporation d/b/a TranSystems Corporation Consultants

AUTHORIZED COMPANY PERSON: Alan Klevens, PE _____ 2-4-14
NAME SIGNATURE DATE