



BEFORE THE CITY COMMISSION
CITY OF STUART, FLORIDA

RESOLUTION NUMBER 98-2014

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA TO RENEW THE AWARD OF REI NO. 2012-119 TO CULPEPPER AND TERPENING, INC. AND HOLTZ CONSULTING ENGINEERS, INC., THE MOST QUALIFIED FIRMS TO PROVIDE PROFESSIONAL ENGINEERING SERVICES FOR WATER DISTRIBUTION SYSTEM REHABILITATION FOR THE SECOND OF TWO POSSIBLE RENEWAL PERIODS THROUGH NOVEMBER 25, 2015, PROVIDING AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

* * * * *

NOW TEHREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA that:

SECTION 1: The City Commission of the City of Stuart hereby approves the renewal of the second of two possible one year renewal periods for REI# 2012-119 to Culpepper and Terpening, Inc., of Fort Pierce, Florida; and Holtz Consulting Engineers, Inc., of Jupiter, Florida; to provide professional engineering services for Water Distribution Rehabilitation on an 'as needed' basis.

SECTION 2: This resolution shall take effect upon adoption.

Res. 98-2014

Approve the 2nd Renewal for REI #2012-119, Professional Engineering Services for Water Distribution Rehabilitation

ADOPTED this 27th day of October 2014.

Commissioner KRAUSKOPF offered the foregoing resolution and moved its adoption. The motion was seconded by Commissioner GLASS LEIGHTON

TROY MCDONALD, MAYOR

KELLI GLASS-LEIGHTON, VICE MAYOR

TOM CAMPENNI, COMMISSIONER

JEFFERY A. KRAUSKOPF, COMMISSIONER

EULA R. CLARKE, COMMISSIONER

YES	NO	ABSENT
X		
X		
X		
X		
X		

ATTEST:

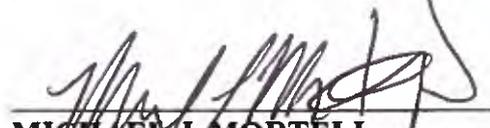


CHERYL WHITE
CITY CLERK

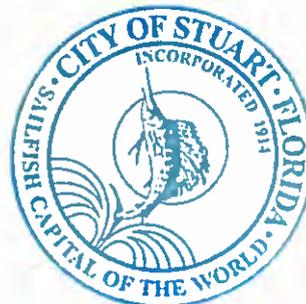


TROY MCDONALD
MAYOR

APPROVED AS TO FORM
AND CORRECTNESS:



MICHAEL J. MORTELL
CITY ATTORNEY





City of Stuart

300 SW St. Lucie Avenue • Stuart • Florida 34994
Department of Financial Services
Purchasing Division

Lenora Darden, CPPB
Procurement Buyer
ldarden@ci.stuart.fl.us

Telephone (772) 288-5308
Fax: (772) 600-0134
www.cityofstuart.us

September 12, 2014

Via Email Transmission: christine.miranda@holtzconsulting.com

David F. Holtz, PE, BCEE
Holtz Consulting Engineers, Inc.
50 South U.S. Highway One, Suite 206
Jupiter, Florida 33477

Subject: Renewal for REI #2012-119, Professional Engineering Services for Water Distribution System Rehabilitation

Dear Mr. Holtz,

This is official notification to your firm that the City of Stuart is satisfied with your firm's performance and wishes to extend your current contract for Professional Engineering Services for Water Distribution System Rehabilitation, for the period beginning November 26, 2014 and ending on November 25, 2015, which represents the second and last year of two (one year) renewal options. This extension is granted under the same terms, conditions, and pricing as the original contract. In addition, the City of Stuart requires a valid Certificate of Insurance on file at all times for Liability, Property Damage, and Automobile Liability, and Worker's Compensation as outlined in the agreement.

Please complete the bottom portion of this letter if your firm will agree to the requested renewal. Your response must be received **no later than 4:00 p.m., October 12, 2014**. You may fax your response to (772) 600-0134 or send by email to ldarden@ci.stuart.fl.us.

Thank you for your cooperation and attention to this matter. Please contact me at (772) 288-5308, should you have any questions.

Best Regards,

Lenora Darden, CPPB
Procurement Buyer

cc: Dave Peters, Assistant Public Works Director
Janine Wilde, Executive Admin Assistant

Dave Tyler, Team Leader II
2012-119 File

I hereby agree to the contract renewal as specified of the subject Agreement

I am unable to agree to the contract renewal as specified of the subject Agreement

(Signature)

David Holtz
Printed Name

9-17-2014
Date

Vice President
Title



**BEFORE THE CITY COMMISSION
CITY OF STUART, FLORIDA**

RESOLUTION NUMBER 117-2013

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA RENEWING THE AWARD OF REI No. 2012-119 TO CULPEPPER AND TERPENING, INC. AND HOLTZ CONSULTING ENGINEERS, INC., THE MOST QUALIFIED FIRMS TO PROVIDE PROFESSIONAL ENGINEERING SERVICES FOR PROFESSIONAL ENGINEERING SERVICES FOR WATER DISRIBUTION SYSTEM REHABILITATION FOR THE FIRST OF TWO POSSIBLE RENEWAL PERIODS TO NOVEMBER 25, 2014, PROVIDING AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

*** * * * ***

NOW THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA that:

SECTION 1: The City Commission of the City of Stuart, Florida approves the first of two possible one year renewal periods (to November 25, 2014) of REI No. 2012-119 to Culpepper and Terpening, Inc., Stuart, Florida and Holtz Consulting Engineers, Inc, Jupiter, Florida to provide professional engineering services for Water Distribution Rehabilitation on an “as-needed” basis.

SECTION 2: The City Commission authorizes the Mayor, City Clerk and any other designated City Official to execute the necessary documents, after review and approval of the City Attorney.

SECTION 3: This resolution shall take effect upon adoption.

Res.117-2013

Renew Contract for Engineering Services for Water System Rehabilitation

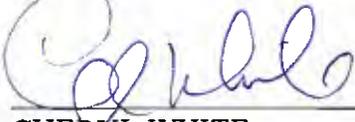
Commissioner Krauskopf offered the foregoing resolution and moved its adoption. The motion was seconded by Commissioner Christie and upon being put to a roll call vote, the vote was as follows:

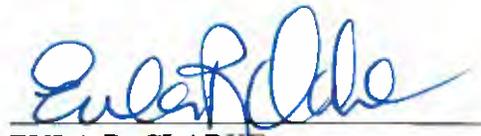
EULA R. CLARKE, MAYOR
TROY A. McDONALD., VICE MAYOR
JEFFREY A. KRAUSKOPF, COMMISSIONER
KELLI GLASS LEIGHTON, COMMISSIONER
JAMES A. CHRISTIE, Jr, COMMISSIONER

YES	NO	ABSENT
X		
X		
X		
X		
X		

ADOPTED this 14th day of October, 2013.

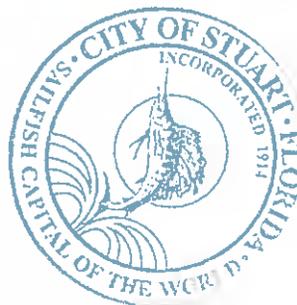
ATTEST:


CHERYL WHITE
CITY CLERK


EULA R. CLARKE
MAYOR

APPROVED AS TO FORM
AND CORRECTNESS:


MICHAEL J. MORVILL
CITY ATTORNEY





City of Stuart

300 SW St. Lucie Avenue • Stuart • Florida 34994
Department of Financial Services
Purchasing Division

Lenora Darden, CPPB
Procurement Buyer
ldarden@ci.stuart.fl.us

Telephone (772) 288-5308
Fax: (772) 600-0134
www.cityofstuart.us

September 5, 2013

Via Email Transmission: christine.miranda@holtzconsulting.com

David F. Holtz, PE, BCEE
Holtz Consulting Engineers, Inc.
50 South U.S. Highway One, Suite 206
Jupiter, Florida 33477

Subject: Renewal for REI #2012-119, Professional Engineering Services for Water Distribution System Rehabilitation

Dear Mr. Holtz,

This is official notification to your firm that the City of Stuart is satisfied with your firm's performance and wishes to extend your current contract for Professional Engineering Services for Water Distribution System Rehabilitation, for the period beginning November 26, 2013 and ending on November 25, 2014, which represents the first of two (one year) renewal options. This extension is granted under the same terms, conditions, and pricing as the original contract. In addition, we need a current copy of Certification of Liability, Property Damage, and Automobile Liability, and Worker's Compensation as outlined in the agreement.

Please complete the bottom portion of this letter if your firm will agree to the requested renewal. Your response must be received **no later than 4:00 p.m., October 7, 2013**. You may fax your response to (772) 600-0134 or send by email to ldarden@ci.stuart.fl.us.

Thank you for your cooperation and attention to this matter. Please contact me at (772) 288-5308, should you have any questions.

Best Regards,

Lenora Darden, CPPB
Procurement Buyer

cc: Dave Peters, Assistant Public Works Director
Janine Wilde, Executive Admin Assistant

Dave Tyler, Team Leader II
2012-119 File

I hereby agree to the contract renewal as specified of the subject Agreement

I am unable to agree to the contract renewal as specified of the subject Agreement

(Signature)

Printed Name

9-6-13

Date

President

Title



**BEFORE THE CITY COMMISSION
CITY OF STUART, FLORIDA**

RESOLUTION NUMBER 112-2012

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA AUTHORIZING THE NEGOTIATION OF AGREEMENTS BETWEEN THE CITY OF STUART AND HOLTZ CONSULTING ENGINEERS, INC., AND CULPEPPER & TERPENING, INC. FOR ENGINEERING SERVICES FOR WATER DISTRIBUTION SYSTEM REHABILITATION; PROVIDING AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.

*** * * * ***

NOW THEREFORE, BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF STUART, FLORIDA THAT:

SECTION 1: The City Commission of the City of Stuart, Florida authorizes the negotiation of an agreement with Holtz Consulting Engineering, Inc. and Culpepper & Terpening, Stuart, Florida, the two highest ranking firms responding to REI#2012-119 for professional engineering services for Water Distribution System Rehabilitation.

SECTION 2: Upon successful contract negotiations, the City Commission will be presented with a contract to approve for these services. .

SECTION 3: This resolution shall take effect upon adoption.

Res.112-2012
Authorize contracts for REI 2012-119

Commissioner Krauskopf offered the foregoing resolution and moved its adoption. The motion was seconded by Commissioner Clarke and upon being put to a roll call vote, the vote was as follows:

JAMES A. CHRISTE, JR., MAYOR
EULA R. CLARKE., VICE MAYOR
TROY A. McDONALD, COMMISSIONER
JEFFREY A. KRAUSKOPF, COMMISSIONER
KELLI GLASS LEIGHTON, COMMISSIONER

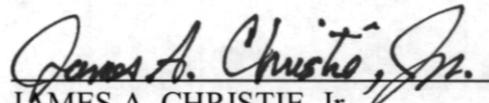
YES	NO	ABSENT
✓		
✓		
✓		
✓		
✓		

ADOPTED this 26th day of November, 2012.

ATTEST:



CHERYL WHITE
CITY CLERK



JAMES A. CHRISTIE, Jr.
MAYOR

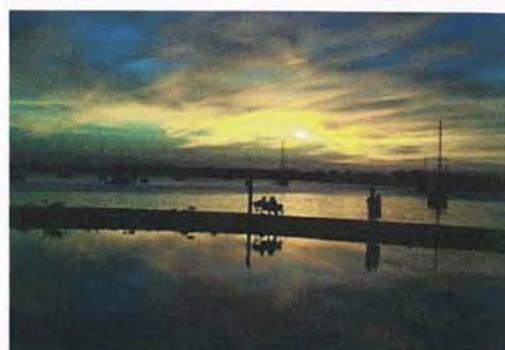
APPROVED AS TO FORM
AND CORRECTNESS:



MICHAEL D. DURHAM
CITY ATTORNEY



City of Stuart Professional Engineering Services for Water Distribution System Rehabilitation REI#2012-119



October 10, 2012
Holtz Consulting Engineers, Inc.
50 South US Highway One
Suite 206
Jupiter, FL 33477





HOLTZ CONSULTING ENGINEERS, INC.

50 South U.S. Highway One, Suite 206 Jupiter, FL 33477

Phone: (561) 575-2005 Fax: (561) 575-2009



October 10, 2012

HAND DELIVERED

City of Stuart
300 S.W. St. Lucie Avenue
Stuart, Florida 34994

Subject: Holtz Consulting Engineers, Inc. (HCE)
Expression of Interest to Provide Professional Engineering Services
City of Stuart Water Distribution System Rehabilitation
REI #2012-119

Dear Selection Committee Members,

Holtz Consulting Engineers, Inc. (HCE) is pleased to submit our Expression of Interest to provide Professional Engineering Services for the City of Stuart's Water Distribution System Rehabilitation program. HCE is a local engineering firm that specializes in quality, cost-effective and responsive service to water and wastewater utilities in Southeast Florida. HCE was founded in Jupiter in 2006 and has a wealth of experience in water and wastewater engineering and our staff has extensive experience with water distribution system improvement projects. We believe that the City will benefit from selecting HCE to provide the requested engineering services because of the qualifications and relevant experience of the firm, our staff's comprehensive experience with similar utilities and projects, and the efficient structure of our firm. Our firm prides itself on providing timely and cost-effective engineering and management service to local utilities, with an emphasis on listening and understanding the needs of our Clients and their customers on each assignment.

HCE staff and our subconsultants have extensive experience with planning, funding, procurement, design, permitting and implementation of water distribution system improvements similar to the City's program to replace older, small-diameter water mains in existing neighborhoods with new mains to provide better service, water quality and fire protection. We also have extensive experience with grant writing and administration for utility improvements and specific experience with the State Revolving Fund (SRF) program. Our team has successfully provided all of the detailed services included within the REI including the following:

- Preliminary design, cost estimating and prioritization of neighborhood utility improvements and evaluation of cost-effective alternatives.
- Preparation of planning and SRF loan documents, and assistance with loan and grant administration and reporting.
- Design and permitting of neighborhood water distribution system replacements.
- Bidding and construction administration services for water distribution system improvements.
- Community relations and public involvement.

All of the members of our firm will participate in providing quality engineering services and exceptional value to the City of Stuart on the water distribution system rehabilitation program. Mr. David Holtz, PE, will serve as Project Director and will ensure that quality service is provided to meet all of the City's goals and will provide value engineering and quality assurance for this project. Our proposed Project Manager, Ms. Christine Miranda, PE, has successfully provided similar services to local utilities for many years and is eager to continue to provide engineering service to the City of Stuart as a member of our firm. Christine will focus on delivering exceptional service to the City and your customers for highly successful project delivery. Ms. Andrea Holtz, PE, will provide assistance with pursuing grants and SRF loans for the work, as well as permitting assistance. Mr. David Xavier, PE will provide project oversight and technical review of drawings and specifications, as well as construction management support. Mr. Curtis Robinson, PE, Mr. Brent Weidenhamer, PE, and Mr. Alex Ciasca, PE, all have significant water distribution system design and construction experience, and will serve as project engineers.



HCE is dedicated to serving the people of the City of Stuart.

We have teamed with other local quality specialty professionals to provide the City of Stuart with the expertise and experience necessary to accomplish all required tasks related to the City's Water Distribution System Rehabilitation Program. **We are fully committed to provide timely and cost-effective engineering service to the City that meets all budget and schedule requirements.**

The City of Stuart will benefit from the efficient structure of HCE's team. All of the members of our firm are involved in providing Client service, and we have no administrative or "overhead" staff. We therefore have very competitive billing rates, and can provide outstanding value to the City of Stuart. We are a small, local engineering firm with the staff qualifications, experience and dedication to success necessary to get the job done right, and the responsiveness and nimbleness to do it quickly and cost effectively.

HCE appreciates the opportunity to submit our Expression of Interest to provide Engineering Services for the Water Distribution System Rehabilitation Program. We look forward to hearing from you, and welcome the opportunity to discuss the benefits to the City of Stuart of selecting Holtz Consulting Engineers, Inc. as your consultant on this program. Please contact us at (561) 575-2005 or you can e-mail us at Holtz@HoltzConsulting.com.

Sincerely,

HOLTZ CONSULTING ENGINEERS, INC.

A handwritten signature in black ink that reads "David F. Holtz".

David F. Holtz, PE, BCEE
Vice President



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SECTION 1: QUALIFICATION DATA

This section will provide a summary of the qualifications and experience of Holtz Consulting Engineers, Inc. (HCE) and the team we have assembled to provide professional engineering services for the City of Stuart's (City's) Water Distribution System Rehabilitation program.

1.1 OVERVIEW OF HOLTZ CONSULTING ENGINEERS, INC.

HCE was founded in Jupiter, Florida in 2006 as an "S" corporation to assist local water and wastewater utilities such as the City of Stuart with high-quality, responsive, and efficient engineering services on infrastructure improvement projects. HCE is a certified small business and minority business enterprise with several local cities, municipalities, and governing agencies including the City of West Palm Beach, Palm Beach County, and South Florida Water Management District. The firm's founders and owners, David and Andrea Holtz, each bring to our Clients over 26 years of comprehensive engineering and management experience and have guided the company from a start-up to a growing firm with seven professional engineers and an experienced designer/drafter. Despite the recent downturn in the local and national economy, we have added quality staff in each of the past four years as a result of our high-quality and responsive service to local utilities. Our staff has the qualifications, experience and availability to provide the highest level of service to the City of Stuart. We are currently successfully providing similar engineering consulting services to several other local utilities. Our staff has demonstrated the commitment to providing excellence and value to our Clients in all of our endeavors. We have the expertise and experience necessary to accomplish all required tasks related to the water distribution system rehabilitation program.



HCE was founded in Jupiter to provide responsive and efficient engineering service for projects such as the City of Stuart's water distribution rehabilitation.

Our firm specializes in providing efficient and cost-effective utility engineering services to Clients located primarily in Martin and Palm Beach Counties. Our engineering and management expertise include the following areas:

- Master planning, capital improvement planning, budgeting assistance and asset management.
- Hydraulic modeling of water distribution, wastewater collection, and reclaimed water distribution systems.
- Water distribution system improvements.

Section 1-1

- Water treatment, storage and pumping.
- Grant writing and administration.
- Permitting of infrastructure improvements.
- Construction management services including inspection and start-up services.
- Wastewater collection systems.
- Pump station design and rehabilitation.
- Wastewater treatment and disposal.
- Reclaimed water production, storage and distribution system.
- Biosolids treatment and handling systems.

HCE and our Team members provide significant experience and capabilities in all phases of the water distribution rehabilitation program - including planning, hydraulic modeling, preliminary engineering and final design, public relations and information, grant writing and administration, permitting, procurement, construction services, and project start-up and close-out. Our firm prides itself on providing timely and cost-effective engineering and management service to local utilities, with an emphasis on listening and understanding the needs of our Clients on each assignment. As long-time residents of the area, and members of the community, we are committed to the success of all of our projects and the Clients that we serve. We are eager to have the opportunity to provide the City of Stuart with cost-effective engineering services for the water distribution system rehabilitation program.

1.2 HCE STAFF QUALIFICATIONS AND EXPERIENCE

The HCE Team for the Professional Engineering Services for the City's Water Distribution System Rehabilitation program is summarized on our Organization Chart provided on the following page. All of HCE's staff is located in the Jupiter office and live in Palm Beach, Martin or St. Lucie Counties. Our location, size, company structure and the dedication and quality of our staff result in timely and cost-effective performance on all of our projects. All of the members of HCE are actively engaged in providing service to our Clients, with no "overhead" staff. Our streamlined organization and structure affords us the capability to provide efficient and cost-effective service to the City. Our staff specializes in water, wastewater and reclaimed water engineering and, as a group, has well over 100 years of experience providing high-quality service to local utilities. We provide responsive engineering service to utilities with an emphasis on doing whatever it takes to successfully complete all projects on time and within budget.



HCE's staff has the expertise and experience to ensure all City of Stuart water system rehabilitation projects succeed.

The HCE Team for the City of Stuart



Project Director
David Holtz, PE, BCEE

Project Manager
Christine Miranda, PE

Hydraulic Modeling & Master Planning

Brent Weidenhamer, PE
Andrea Holtz, PE
Alexander Ciasca, PE

Pipeline Design

Christine Miranda, PE
Brent Weidenhamer, PE
Curtis Robinson, PE

Grants & Funding Assistance

Andrea Holtz, PE
Christine Miranda, PE
David Holtz, PE

Value Engineering & Quality Assurance

David Holtz, PE
David Xavier, PE

Permitting Assistance

Andrea Holtz, PE
Christine Miranda, PE
Curtis Robinson, PE

Construction Management & Inspection

David Xavier, PE
Curtis Robinson, PE
Brent Weidenhamer, PE

Surveying and Easements

Betsy Lindsay, Inc.

Underground Utility Locations

Ground Hound Detection Services, Inc.

Geotechnical & Testing

Dunkelberger Engineering & Testing, Inc.

HCE's staff provides significant experience and qualifications in distribution and collection system engineering. Andrea Holtz is president of HCE and is responsible for overall business management as well as grant writing and administration, master planning and asset management, project permitting and miscellaneous engineering services.

David Holtz specializes in water and wastewater engineering and has provided outstanding client service and expertise as a consulting engineer in Southeast Florida since 1986. Christine Miranda provides over 13 years of significant water and wastewater distribution and collection system design, construction management and client service capability and is eager to assist the City with implementation of these projects. She has worked on numerous water and sewer projects in existing residential neighborhoods and understands the specific actions required to make these types of projects successful. Curtis Robinson, Brent Weidenhamer and Alex Ciasca are very competent project engineers with hydraulic modeling, pipeline design and construction management experience.

David Xavier brings extensive technical knowledge and experience for water and wastewater pipeline projects and has provided construction management for some of the biggest local utility projects, including the recently completed 27-mgd reclaimed water production facility and 18 miles of 36-inch reclaimed water main that provides cooling water to the FPL West County Energy Center and the expansion of Martin County Utilities Tropical Farms WWTP. Resumes for HCE staff are included at the end of this section.

1.3 THE HCE TEAM

We have assembled a team of experienced, responsive and cost-effective subconsultants that will help us provide outstanding engineering and technical support for the project. Our team was selected with the specific needs of the City of Stuart and the project in mind. Betsy Lindsay, Inc. will provide surveying services from their office in Palm City. Underground locating of existing utilities will be provided by Ground Hound Detection Services, Inc. and geotechnical investigation will be provided by Dunkelberger, Inc. A brief description of the role and qualifications of each of the team members is summarized below.

- **Betsy Lindsay, Inc.**

Betsy Lindsay, Inc. is a licensed Surveying and Mapping Firm that is a Certified



BETSY LINDSAY, INC.
SURVEYING AND MAPPING

Minority/Woman Business Enterprise, based in Martin County, and Palm Beach County Florida. Betsy Lindsay, Inc. has certifications with the following entities: Palm Beach County as a Small Business Enterprise (SBE), the City of West Palm as an SBE, FDOT as a DBE, FDOT in Group 8, and South Florida Water Management District as an SBE. The firm is deeply committed to supplying quality surveying and mapping services since its conception in January 1998.

An integration of new technologies married with traditional survey equipment and combined 30+ years of experience is the basis for a quality survey within a specified time frame. Betsy Lindsay, Inc. is dedicated to providing the highest quality surveys and meeting real-time project deadlines. Betsy Lindsay, Inc. currently employs 17 employees, with 4 survey crews.

Ms. Lindsay has over 28 years of experience in the Surveying and Mapping Business. Betsy has performed Boundary, Topographic, Quantity, Route, Bathymetric, R/W, Control Survey and various types of Specific Purpose Surveys. Betsy is well versed in AutoCAD and Softdesk products for the efficient accurate production of survey field data into a quality final survey product.

Mr. David J. Wichser has over 27 years of experience in surveying and mapping; 15 years of experience surveying directly for the D.O.T. Dave has performed Boundary, Topographic, Quality, Route, Bathymetric, Right of Way, Geodic,

Hydrographic, Sectional, Construction and Transportation Design Surveys. Dave also has an extremely well developed background in CAiCE, Geopak, Microstation, EFB, CEFB and TDS.

- **Dunkelberger Engineering & Testing, Inc.**

Dunkelberger Engineering & Testing, Inc. (Dunkelberger) is a full-service, professional engineering firm specializing in the applied earth sciences (geotechnical engineering, geology and geohydrology). The firm has offices in Fort Lauderdale, Port St. Lucie, Sarasota, and West Palm Beach, Florida to serve its clientele. Dunkelberger offices include Construction Materials Engineering Council (CMEC), United States Army Corps of Engineers (USACE), and Florida Department of Transportation (FDOT) certified laboratories.

DUNKELBERGER engineering & testing, inc.

Douglas S. Dunkelberger, PE, President of Dunkelberger Engineering, opened the West Palm Beach office of Jammal & Associates, Inc. (in 1982) which later (1989) became PSI. In 1994, feeling the need to work more closely and efficiently with clients, Mr. Dunkelberger started Dunkelberger Engineering & Testing, Inc. in Port St. Lucie and the West Palm Beach office opened in 1995. The firm's mission is to offer geotechnical engineering and testing services of distinguishable quality and with personalized attention to client service.

Bolstered by the addition of four exceptional partners, the firm's mission is on track. Michael J. O'Connor, PE, Executive Vice President, is co-founding partner of the firm. Vice Presidents Thomas J. Tepper, PE, and Craig E. Dunkelberger, PE joined the firm in 1995. Partner Kevin E. Aubry, PE, came on board in 2000.

- **Ground Hound Detection Services, Inc.**



Ground Hound Detection Services, Inc. (GHD) is an underground utility locating, consulting and coordination firm established in October 1994.

Underground Utility Locating is a continually advancing industry, which utilizes growing state-of-the-art technology to accurately identify, characterize and survey/map underground utilities and structures. The technology used by GHD includes: Magnetic Detection, Electro Magnetic Induction, Surface Ground Penetrating Radar (GPR) and High Resolution Concrete Scanning GPR. Vacuum Excavation, a safe, non-destructive method for exposing utilities, is also used to confirm location and record other additional information.

Since its inception, GHD has been involved in providing Subsurface Utility Engineering services (SUE). GHD's SUE process conforms to the American Society of Civil Engineers (ASCE) Standard CI/ASCE 38-02 for the collection and

depiction of existing subsurface utility data. SUE is an engineering process utilizing state-of-the-art technology to accurately identify, characterize and map underground utilities during the design phase of a project.

GHD is certified by Staking University to provide comprehensive training and certify individuals as competent underground utility locating technicians. Additional certification includes: MALA GeoScience "GPR Theory & Operation of X3M Systems," Radiodetection Corp. "Underground Cable, Pipe and Fault Locating." GHD's organization membership includes: Sunshine State One Call of Florida, Underground Utility Leak & Locators Association (UULLA), Society of American Military Engineers (SAME), American Society of Highway Engineers (ASHE), Common Ground Alliance (CGA), National Utility Locating Contractors Association (NULCA).

1.4 HCE Team Resumes

Our key project team members have developed a rapport of expedited response, constant availability, and a can-do attitude with our clients. These are the team members that will be responsible for ensuring that the project deliverables are on-time, within budget, and meet or exceed the City's expectations. A brief summary of the key project HCE staff and subconsultant personnel is listed in the following pages.

David F. Holtz, PE, BCEE
Vice President
Holtz Consulting Engineers, Inc.

Summary

Mr. Holtz co-founded Holtz Consulting Engineers, Inc. in 2006. He is responsible for management of the firm's water, wastewater and reclaimed water engineering operations and ensuring quality client service. He has over 26 years of experience in the areas of water, wastewater, and reuse engineering.

Experience

General Engineering Consultant- Seacoast Utility Authority

Mr. Holtz serves as the general engineering consultant to the Seacoast Utility Authority (SUA). He has served as Client Service Manager for improvements to the water and wastewater treatment plants, as well as water distribution system improvements and force main replacements. He provides general engineering support to SUA staff & coordinates engineering services on a variety of projects.

General Engineering Consultant - East Central Region Water Reclamation Facility (ECRWF) Board

Mr. Holtz is the general engineering consultant to the ECR Board, which manages the 70-mgd ECRWF and has served in this capacity since the Board's inception in 1992. He has successfully assisted in the management and operation of the ECRWF and implementation of numerous improvements to and expansion of the facility, and implementation of a 10-mgd wetlands-based water reclamation facility. His responsibilities include implementation of projects, regulatory support, planning and budgeting assistance and assisting with operation and maintenance of the facility.

General Engineering Consultant - South Martin Regional Utility (SMRU)

Mr. Holtz serves as the general engineering consultant for SMRU, and the Engineer-of-Record for many water and wastewater system improvements. He assists SMRU staff with operation and maintenance, engineering evaluations, and representation of the utility with regulatory agencies. He identified improvements that led to a low-cost expansion of the wastewater plant from 1.2 mgd to 1.4 mgd. Mr. Holtz has implemented many improvements at the wastewater treatment plant and has implemented numerous improvements to the water and irrigation quality water distribution systems and wastewater collection, pumping and transmission system.

Mr. Holtz has also managed numerous other wastewater treatment facility evaluation and improvement projects over his career, including the following:

- **Village of Royal Palm Beach, FL Wastewater Treatment Plant.**
- **St. Lucie County, FL South Hutchinson Island Water Reclamation Facility,**
- **Nassau, Bahamas Cable Beach Wastewater Treatment Plant.**
- **Fort Lauderdale, FL GTL WWTP Improvements.**
- **Plantation, FL WWTP Expansion.**
- **Lee County, FL WWTP Expansion.**
- **FPL West County Energy Center, FL Injection Wells.**

Education

Bachelor of Science in Environmental Engineering, University of Florida, 1985
Masters of Engineering in Environmental Engineering, University of Florida, 1987

Registration

Professional Engineer, Registration No. 42595, State of Florida
Holtz Consulting Engineers, Inc.

Summary

Ms. Miranda joined Holtz Consulting Engineers, Inc. in 2012. Ms. Miranda is experienced in successfully managing multiple projects, from small, fast paced projects to large projects with numerous disciplines and subconsultants. She brings over thirteen years of experience in the design of water treatment and distribution systems, wastewater treatment and collection systems, pumping stations, effluent disposal systems, and biosolids management. Ms. Miranda's responsibilities also include environmental permitting, regulatory coordination, and the design of project infrastructure improvements for water and wastewater systems.

Experience

City of Stuart CDBG Disaster Water Main Improvements Project – City of Stuart

Project manager for design, permitting, bidding, and services during construction for Community Development Block Grant funded water main improvements for approximately 200 homes in the City of Stuart. Project included construction of 6-inch water mains to replace existing small diameter water mains and reconnection of services with new meters as well as the addition of fire hydrants for fire protection. This project was completed on time and within budget.

Palm Beach Country Estates Water Main Improvements – South Indian River Water Control District

Project manager for the design, permitting, bidding, public relations, and services during construction of a potable water distribution system consisting of 46 miles of water main servicing 1,551 lots in a rural neighborhood. Project included 17 horizontal directional drills, 10-inch to 30-inch in diameter and up to 900 LF in length, including crossing I-95 and the Florida Turnpike. Project included boring underneath driveways in order to maintain access to residents as well as all public relations and coordination during construction. This project came in on time and approximately \$500,000 under budget.

Rio CDBG Project – Martin County Community Redevelopment Agency

Project manager and engineer-of-record for the design, permitting, bidding, representation at public meetings with area residents, community involvement and construction phase services for installation of gravity sewer mains, one 250 gpm duplex pump station, potable water mains, hookup on individual properties and complete roadway reconstruction for approximately 64 homes in Martin County.

Ridge and Ridgeview Gravity Sewer Improvements – City of Clewiston

Project manager responsible for the design review, bidding, State Revolving Fund (SRF) administration, community involvement, and construction services for the Ridge and Ridgeview Gravity Sewer Construction project. Project consisted of 18,600 LF of sewer main, 64 manholes, and three lift stations to serve approximately 200 homes in an older neighborhood. Construction included abandonment of the existing septic tanks and connection of the homes to the new gravity sewer system. Public presentations were given to the residents at a commission meeting and a separate resident only meeting to inform and educate residents about the project.

Orange Camp Road Reclaimed Water Main and Potable Water Main – City of Deland

Project manager and engineer-of-record for the design, permitting, bidding, and services during construction for 9,500 LF of 12-inch reclaimed water main and 8,200 LF of 8" potable water main. Project included six 14-inch horizontal directional drills along Orange Camp Road, two 18-inch jack and bore crossings, and nine 10-inch to 12-inch horizontal directional drills.

Solifron Water Main - Martin County Utilities

Project engineer for the design and permitting for the construction of approximately 20,000 LF of water main ranging in size from 20-inch to 6-inch in an established neighborhood in Martin County. The new water mains were installed to eliminate the use of individual supply wells in an area of contaminated groundwater.

County Road 510 Utility Adjustments - Indian River County Utilities

Project manager and engineer of record for utility design, coordination, and permitting services for the CR-510 and US Highway 1 roadway project including approximately 2,400 LF of 16-inch reclaimed water main along C.R. 510, 1,700 LF of 12-inch reclaimed water main along 58th Ave., and stub-outs on both sides of the roadway for the newly proposed 16-inch and 12-inch reclaimed water mains, existing water mains and sanitary sewer force mains.

Anderson Middle School Water & Sewer Improvements – Martin County Utilities

Project manager and engineer-of-record for the design, permitting, and services during construction for the on-site water and sewer utility improvements for a new Martin County middle school. Design included a master lift station that allowed for future expansion to accommodate a new development adjacent to the school site. Modeling for fire flow and water service analysis was performed.

Center Street North Area Gravity Sewer, Low Pressure System, & Water Main Improvements Project – Loxahatchee River District

Project manager for the design, permitting, bidding, and services during construction for gravity sewer, low pressure force main, lift station, potable water main extension, and roadway improvement work for 200 homes in Jupiter.

Jensen Beach Causeway Utility Relocation – Martin County Utilities

Project engineer for the design, permitting and construction administration for a utility relocation project that included four (4) separate horizontal directional drills (HDD) of 2,180 LF, 1,260 LF, 1000 LF and 270 LF of 12-inch HDD piping under the Indian River in Martin County.

**Professional
Affiliations**

Florida Water Environment Association, Director-At-Large, American Water Works Association, Member, St. Lucie County Leadership, Graduate Class 26

Education

Bachelor of Science in BioResource Engineering, Rutgers University, 1999

Registration

Professional Engineer, Registration No. 60906, State of Florida

Holtz Consulting Engineers, Inc.

Summary

Ms. Holtz co-founded Holtz Consulting Engineers, Inc. in 2006 in Jupiter, Florida. She is responsible for overall management of the firm and specializes in funding analysis and grant consulting and grant writing services, permitting, planning, and program and project management services. Ms. Holtz has over 26 years of progressive design and project management experience in the areas of water resources, planning, permitting, construction management, project coordination and grant writing, grant management and grant compliance.

Experience

Grant Writing, SRF loans and Funding Analysis - Various Clients

Ms. Holtz is currently under contract as a Grant Consultant for the City of West Palm Beach. Ms. Holtz has successfully provided grant writing, grant management and grant compliance services for the City of West Palm Beach for over 13 years on over 140 individual grants totaling over \$80 million in funding. She has worked closely with City staff through capital planning and budgeting efforts to identify multiple funding opportunities from federal, state, and local sources to achieve City project implementation goals. In 2009, she completed State Revolving Fund (SRF) loan applications for several City Utility projects in response to the influx of federal ARRA stimulus funding. Ms. Holtz has submitted successful grant applications to numerous federal, state, regional and local agencies including:

- U.S. Department of Energy;
- HUD/EPA Community Development Block Grants;
- U.S. Environmental Protection Agency;
- Federal Highway Administration;
- Federal Emergency Management Agency;
- Florida Department of Transportation;
- State of Florida Department of Environmental Protection;
- South Florida Water Management District; and
- Foundation funding from the Quantum Foundation, and the Community Foundation of Palm Beach and Martin Counties.

Asset Management and Planning - City of West Palm Beach

Ms. Holtz provided technical assistance to the City of West Palm Beach Asset Management Team (AMT) in the development of levels of service and key performance indicators for the City of West Palm Beach Public Utilities Department. Ms. Holtz is currently assisting the City's AMT with the development of:

- Division Levels of Service and Key Performance Indicators
- Business Case Evaluation of the City's existing 42-inch/48-inch force main;
- Asset Inventory and Replacement Planning Model for assets at the East Central Regional Water Reclamation Facility;
- Maintenance Procedures Template for the City's Public Utilities Department.

Wastewater Master Planning - Palm Beach County

Ms. Holtz provided technical assistance to the Palm Beach County Wastewater Master Plan Team in the update of the County's Utility Master Plan. This update
Holtz Consulting Engineers, Inc.

included the development and implementation of a risk and condition assessment tool for all County lift stations and the forecasting of necessary renewal and replacement projects in the 5 year, 10 year and 20 year planning horizons.

Permitting - East Central Regional Water Reclamation Facility (ECRWF)

Ms. Holtz assisted with preparation of the application for renewal of the NPDES permit for the ECRWF, as well as the following required supporting documents:

- Capacity Analysis Report;
- Operation and Maintenance Performance Report; and
- Reuse Feasibility Study.

Permitting - Seacoast Utility Authority

Ms. Holtz provided assistance with the preparation of the renewal application for the PGA Wastewater Treatment Plant FDEP Operating Permit. As part of the application, Ms Holtz assisted with the development of the Capacity Analysis Report analyzing the current treatment capacity of the facility and projected future capacity based on population growth, and assisted with preparation of an Operations and Maintenance Performance Report evaluating the condition of the treatment facilities and the performance of the plant.

Permitting - South Martin Regional Utility

Ms. Holtz assisted with the preparation of the renewal application for the SMRU NPDES permit and all required supporting documents for the SMRU WWTP in 2007 and 2012. Supporting documents prepared included a Capacity Analysis Report and wastewater flow projection, and an Operation and Maintenance Performance Report.

Electronic Operations and Maintenance Manual - City of West Palm Beach, Public Utilities Department

Ms. Holtz worked with City staff to develop an electronic Operations and Maintenance Manual for the City's Surface Water Supply System. Specific tasks included documentation of current and recommended maintenance and operation procedures, and an inventory of all facilities and their associated regulatory permits from the City's Control No. 2 Pump station to the intake of the City's Water Plant including all control structures and pump stations.

Operations and Maintenance Manual Update - ECRWF

Ms. Holtz provided assistance with the update of the existing ECRWF Operations and Maintenance Manuals.

Water Resources and Stormwater Design

As a Supervisor of the Drafting and Design Group and Division Director of Enterprise Design at the South Florida Water Management District, Ms. Holtz was responsible for successful development of design plans and specifications of water supply and flood control design projects throughout the region including gated control structures, pump stations, and canal maintenance and excavation.

Education

Bachelor of Science in Environmental Engineering, University of Florida, 1986

Registration

Professional Engineer, Registration No. 45246, State of Florida
Holtz Consulting Engineers, Inc.

Summary

Mr. Weidenhamer joined Holtz Consulting Engineers, Inc. in Jupiter, Florida in 2009. Mr. Weidenhamer has over 9 years experience in the design, permitting, and construction administration of water, wastewater, and reuse water projects. His experience includes hydraulic modeling, water and force main design, pump station design, wastewater treatment plant component design, technical report preparation, and wastewater hydraulics.

Experience

Water Main Rehabilitation Projects- Seacoast Utility Authority

Assisted in the design, permitting and services during construction for following projects:

- The installation of a 36-inch water main onsite at the Hood Road WTP and the installation of a 24-inch water main along Alternate A1A. The 24-inch water main was originally designed as three separate horizontal directional drills utilizing ductile iron pipe. During construction, Mr. Weidenhamer facilitated the use of traditional open-cut methods, including through an area with groundwater remediation for a total cost savings of over \$400,000.
- The installation of new 6-inch and 4-inch water mains to replace the existing highly tuberculated water mains within the Frenchman's Creek development. The new mains were installed adjacent to the existing mains and then connected to the existing mains. Coordinated and communicated with the residents throughout project design and construction.
- The installation of a new 10-inch water main and a new 4-inch force main to replace the existing mains that cross aerially under an existing bridge within the Cypress Island development. The new mains were horizontally directional drilled adjacent to the existing bridge and connected to the existing mains. The existing aerial crossings were removed from the bridge.
- The installation of a new 16-inch from the Hood Road WTP to the PGA WWTP as a method of disposal for nanofiltration concentrate and a surge tank at the Hood Road WTP to protect the new main from potential surges. The nanofiltration concentrate will be blended at the PGA WWTP with reclaimed water and distributed to their existing reclaimed water customers. In addition to the 16-inch main, a 2-inch fiber optic conduit was installed in the same trench as the concentrate main to allow for the future installation of a fiber optic system that allows for communication between Seacoast facilities. This project included the crossing of Military Trail, Interstate 95, the Florida Turnpike, Central Boulevard, Jog Road and the existing Old Palm golf course. Work included coordination with various permitting authorities and home owner associations.
- The installation of a new 20-inch Raw Water Main from the Hood Road Water Treatment Plant to the Richard Road Water Treatment Plant project. The project consisted of over 30,000 LF of pipeline that was installed via open cut and horizontal directional drilling methods.

Utility Improvements- South Martin Regional Utility

- Assisted in the design, permitting and services during construction for nine separate interconnections on Jupiter Island that connected the old asbestos cement water mains to the newly installed high-density polyethylene water mains. The locations of these interconnections were determined by a hydraulic model that was developed and run by HCE to investigate expected water quality and age.
- Performed field testing and hydraulic modeling in order to determine the available fire flow throughout South Martin Regional Utilities potable water system. Work on this project included adding recently installed water mains to the hydraulic model, performing fire hydrant testing in various locations and calibration of the existing potable water main to reflect field conditions.

Utility Infrastructure- Martin County Utilities

- Assisted in the field testing and hydraulic evaluation in order to determine the feasibility of City of Stuart providing South Martin Regional Utilities with IQ water through Martin County Utilities existing IQ water distribution network. Work included field testing of the existing Martin County system, calibration of the existing hydraulic model, and determining the capital improvements, and associated costs, required to in order to provide the same level of service to Martin County's existing customers while serving South Martin Regional Utilities.
- Assisted in the design and services during construction of the Force Main Reuse Main Interconnects between the Martin Downs WWTP and the Tropical Farms WWTP.

Palm Beach Country Estates - South Indian River Water Control District

Assisted in the hydraulic modeling, design and services during construction for the addition of potable water to Palm Beach Country Estates, a rural area consisting of 1,551 lots that are approximately 1.25-acres in size. This project included over 45-miles of water main.

Hydraulic Modeling Projects

- City of Stuart force main system.
- SUA Potable Water System, Reclaimed Water System and Force Main Collection System.
- Fort Pierce Utility Authority force main and Lift Station "A" Gravity Main system.
- St. Lucie County Utilities force main system.
- Immokalee Water & Sewer District potable water system
- Okeechobee Utility Authority potable water system.

Florida Water and Environmental Association; Florida Engineering Society

Bachelor of Science in Environmental Engineering, University of Florida, 2003

Professional Engineer, Registration No. 68337, State of Florida

Holtz Consulting Engineers, Inc.

Professional Affiliations

Education

Registration

Summary

Mr. Xavier joined Holtz Consulting Engineers, Inc. in Jupiter, Florida in 2008. Mr. Xavier has over 27 years of experience in the design, permitting and construction administration of water, wastewater, and reclaimed water projects. He has served as a project manager or resident engineer on several large projects totaling over \$300 million. Mr. Xavier is also experienced in managing multiple projects, including large projects with numerous disciplines and subconsultants.

Experience

West County Energy Center Reclaimed Water Project – Florida Power & Light

Mr. Xavier served as the FPL Project Manager for the project, which included a reclaimed water treatment facility with a capacity of 27 mgd located at the East Central Regional Water Reclamation Facility in West Palm Beach, Florida; 18 miles of 36-inch reclaimed water pipeline; and reclaimed water storage and distribution piping on the FPL West County Energy Center site. His duties included overseeing the design, permitting, contractor pre-qualification, bidding and contractor selections, construction and commissioning phases for this \$60 million project. He also conducted value engineering reviews for all design aspects in order to ensure quality and cost control on the project. The project included numerous roadway and waterway crossings and Mr. Xavier assisted with obtaining approximately 20 permits and 10 easements. The 18 mile pipeline included fifteen (15) horizontal directional drills (HDD), two (2) jack and bores and two (2) aerial crossings. The HDD method was used to cross the Florida Turnpike, along with several other roads, canals and wetlands. The project was completed ahead of schedule and under budget.

Client Service Manager - Seacoast Utility Authority (SUA)

Mr. Xavier served as the Project Manager responsible for the planning and implementation of numerous utility projects for SUA. Projects include the design and construction administration of approximately 90,000 LF of water, wastewater and reclaimed water pipelines; overseeing wastewater and reclaimed water hydraulic modeling; developing the preliminary design report for a \$90 million expansion to the Utility's water treatment facilities and pipelines; updating the reclaimed water system master plan; and implementing extensive improvements at the PGA Wastewater Treatment Plant.

Client Service Manager - Martin County Utilities (MCU)

Project Manager responsible for the planning and implementation of numerous utility improvements projects for MCU. Mr. Xavier managed the \$40 million expansion of the Tropical Farms Wastewater and Water Treatment Facilities and related pipelines; design, permitting and construction administration for 30,000 LF of 16-inch forcemain and 16-inch reclaimed water main interconnecting two WWTPs; 5,000 LF of 12-inch forcemain and 12-inch water main for the Jensen Beach Causeway Water and Wastewater Main Relocation project; 20,000 LF of water mains for the Solitron Water Main project; several other pipeline projects; wastewater and reclaimed water ten-year capital improvements plans; and the Vista Salerno Supplemental Reuse Pumping Facility.

Education

Bachelor of Science in Civil Engineering, University of Massachusetts, 1985

Registration

Professional Engineer, Registration No. 55308, State of Florida

Holtz Consulting Engineers, Inc.

Summary

Mr. Robinson joined Holtz Consulting Engineers, Inc. in Jupiter, Florida in February 2009. Mr. Robinson has over nine years of experience in the design, permitting, and construction administration of water, wastewater and reclaimed water projects. He has been involved in projects that include water and wastewater treatment, biosolids management, pipelines, pump stations, production wells, and reclaimed water production.

Experience

Utility Rehabilitation- Seacoast Utility Authority

Mr. Robinson assisted in the design, permitting, bidding, and construction administration for numerous water, wastewater and reclaimed improvements projects for Seacoast Utility Authority, including the following:

- Approximately 7,000 LF of 3-inch, 4-inch, 6-inch, and 8-inch water main in the existing Horseshoe Acres neighborhood. New route included two subaqueous directional drills, new fire hydrants, grouting of existing mains, and site restoration.
- Approximately 3,400 LF of 8-inch supplemental reclaimed water main adjacent to the MacArthur Center.
- Approximately 1,900 LF of 12-inch water main, including a subaqueous directional drill, through an existing neighborhood.
- Fourteen new replacement surficial aquifer production wells and associated 8-inch raw water mains, and the rehabilitation of six existing surficial aquifer productions and capture wells.
- Reject water storage and pumping improvements including geosynthetic lining of approximately 10 acres of storage ponds, a duplex submersible pump station, 24-inch inch gravity influent main and 10-inch force main.

Utility Improvements- South Martin Regional Utility

Mr. Robinson assisted in providing design, permitting, and construction administration services for numerous wastewater and reclaimed improvements projects for South Martin Regional Utility, including the following:

- Influent piping study for the SMRU Wastewater Treatment Plant which evaluated piping options to reduce headloss and increase flow capacity. Reviewed existing record drawings, performed site visits and coordinated potholing and force main locating. Prepared a record drawing in AutoCAD illustrating the existing piping and valving configuration and met with SMRU staff and discussed methods of reducing headloss in the influent piping.
- A new 0.3 million gallon glass-fused lined, steel ground irrigation quality water storage tank, sheet pile retaining wall, and horizontal centrifugal pump station.
- Two new 1.6 MGD disk filters, conversion of an unused digester to a chlorine contact basin, yard piping modifications, and new RAS pumps.

Various Projects - East Central Regional Water Reclamation Facility

Mr. Robinson assisted in the design, permitting, bidding, and construction administration for numerous wastewater improvement projects for the East Central Regional Water Reclamation Facility, including the following:

- Evaluated pumping and piping alterations to allow return flow pumping from the flow equalization basin to the front of the anaerobic selector. Modification of the return flow discharge to the anaerobic selector will provide better treatment of wastewater stored in the flow equalization basins. Evaluation included analyzing several alternatives, the development of hydraulic profiles and pumping system curves to estimate pumping capacity, and preparation of construction cost estimates. Based upon the evaluation, piping modifications were designed and constructed. The modifications included manifolding eight 12-inch pipes into one common 36-inch header that connected to an existing 48-inch pipe.
- Performed an evaluation of alternatives to improve the process water pumping system at the ECRWRF. Evaluated alternate methods of providing process water throughout the site and identified the estimated capital cost and advantages and disadvantages of alternate methods of replacing the old process water pumping and distribution system. Four different alternatives were evaluated and summarized in a report.

Utility Improvements- Martin County Utilities (MCU)

Mr. Robinson assisted in the design, permitting, bidding, and construction administration for numerous water, wastewater and reuse improvements projects for Martin County Utilities, including the following:

- Conversion of the Martin Down WWTP to a Master Pump Station and Force Main and Reuse Main Interconnect. Project included a 4.0 mgd master lift station and approximately 35,000 LF of 16-inch force main and reuse main, including horizontal directional drills beneath the Florida Turnpike and State Roads 76 and 714. Lift station improvements included converting existing secondary clarifiers into equalization basins complete with covers and an odor control system, new pumps, yard piping, SCADA, and electrical systems.
- Performed water and force main relocations for approximately 4,200 LF roadway and drainage improvements located on Salerno Road. Work included 700 LF of new 8-inch water main to loop two existing dead-end water mains and over 50 relocations of the existing water and force mains.
- Expansion of the Tropical Farms wastewater and reverse osmosis water treatment facilities from 1.0 mgd and 1.5 mgd to 4.5 mgd and 8.3 mgd, respectively. The \$40 million project included the installation of a new headworks, oxidation ditches, clarifiers, filters, chlorine contact basins, reclaimed water pumping facilities, a RAS/WAS pump station, two electrical buildings, a new sludge thickener/digester and a new waste holding tank. The project also included two 18-inch deep injection wells, five Floridan Wells, an iron treatment facility at the WTP, low pressure reverse osmosis treatment process and a 5-MG ground storage tank.
- Replacement and modifications to 12-inch, 16-inch, and 20-inch piping and valves located at the North Wastewater Treatment Plant.

Education

Bachelor of Science in Civil Engineering, Missouri S&T, 2001
Master of Science in Engineering Management, Missouri S&T, 2003

Registration

Professional Engineer, Registration No. 65685, State of Florida
Holtz Consulting Engineers, Inc.

Summary

Mr. Ciasca joined Holtz Consulting Engineers, Inc. in Jupiter, Florida in September 2012. Mr. Ciasca has over six years of experience in the design, funding, permitting, and construction administration of water, wastewater and reclaimed water projects. He has been involved in projects that include water and wastewater treatment, water distribution and wastewater collection systems, biosolids management, and reclaimed water production.

Experience

Utility Rehabilitation - Town of Lake Clarke Shores

Mr. Ciasca assisted in the design, permitting, and construction administration of several water system improvement projects within the Seminole Manor water distribution system, including the following:

- Replacement of approximately 1,250 LF of 4-inch asbestos cement water main with 8-inch PVC water main along Chickasha Road, including 2 fire hydrants and approximately 20 double water service connections, while maintaining water service to all residents within project boundaries.
- Replacement of approximately 1,300 LF of 4-inch asbestos cement water main with 8-inch PVC water main along Chickasha Road, including 3 fire hydrants and approximately 25 double water service connections, while maintaining water service to all residents within project boundaries.
- Hydraulic modeling of Seminole Manor potable water system to determine the impacts of using a different water source location to feed the distribution system.
- Hydraulic modeling of Seminole Manor to prepare a new fire hydrant flushing protocol after water source relocation.

Jenkins Road Water Main - Fort Pierce Utility Authority

Mr. Ciasca assisted in the design, permitting, and construction administration for the water main construction along Jenkins Road. Project included installation of over 2,600 LF of 8-inch PVC water main and six fire hydrants.

Ridge and Ridgeview Gravity Sewer Project - City of Clewiston

Mr. Ciasca assisted in the State Revolving Fund (SRF) grant/loan application process and award for the Ridge and Ridgeview Gravity Sewer Project. Mr. Ciasca also provided services during construction including construction observation, processing pay requests, changes orders, and other related activities. Ensured project adhered to all American Recovery and Reinvestment Act (ARRA) grant/loan stipulations including Davis-Bacon Wage rates and the "Buy American" requirement. Project consisted of 13,000 LF of 8-inch sewer main, 66 manholes, over 200 sewer services, 3 lift stations, and 4 horizontal directional drills.

Jupiter Island Water Service Connection Evaluation - South Martin Regional Utility

Mr. Ciasca assisted in preparing a technical memorandum which evaluated the costs and work associated with switching the water service connections of approximately 400 residences on Jupiter Island to the new potable water distribution mains.

Church Street Force Main - Loxahatchee River District

Mr. Ciasca assisted in the design, permitting, and construction administration for the force main construction along Church Street. Project included installation of over 5,100 LF of 12-inch PVC force main within a residential neighborhood. Mr. Ciasca also provided services during construction including construction observation, processing pay requests, changes orders, and other related activities.

Indiantown WWTP Filter Addition AWS Grant - The Indiantown Company

Mr. Ciasca prepared the Alternative Water Supply (AWS) grant application for the Indiantown Wastewater Treatment Plant Filter Addition project. Successfully obtained funding through the South Florida Water Management District AWS Grant program.

Education

Bachelor of Science in Environmental Engineering, University of Florida, 2006

Registration

Professional Engineer, Registration No. 73007, State of Florida

ELIZABETH ANN LINDSAY, P.L.S.

EDUCATION: A.A., Civil Engineering, Miami Dade Community College, Miami, Florida, 1983
Certified 40 Hour Hazmat/Health & Safety Training

LICENSED: Professional Land Surveyor, State of Florida – License # 4724

SUMMARY OF EXPERIENCE:

Ms. Lindsay has 27 years of experience in land surveying related responsibilities. During that time, her responsibilities have included computations and coordination for survey related projects such as land subdividing, platting, submerged land lease exhibits, environmental field surveys, bathymetric surveys, road right-of-way and construction surveys, boundary surveys, client liaison, and the supervision of various projects.

RELEVANT EXPERIENCE:

S.R. 76 RIGHT OF WAY MONUMENTATION, Martin County, Fl. Responsible for the placement of monumentation along the right of way of State Road 76 in western Martin County. This was a very old map with a large chaining error. A great deal of research and investigation was required to determine the correct location of new monumentation.

BERRY GROVES, SFWMD, Palm Beach County – Acquire two cross section on the Townsend Canal, the NE Rim Ditch, Roberts Canal, LPDD Canal and Banana Branch, and four cross sections on the Crawford Canal and the Fort Simons Branch. Acquire the pipe size, type, length and invert of the three culvert bridges. Locate and acquire an elevation on six seasonal high water marks. Locate 15 clusters of 3 pizometers and acquire a top of casing elevations.

LWDD LI-16 Canal, Palm Beach County – Responsible for this project that is approximately 3 miles in length and is location in Palm Beach County. Topographic/Design survey for a proposed 24" waterline running along the LWDD L-16 Canal from Jog Road to Congress Avenue. Process the field data and prepare a Topographic Survey.

Manatee Creek Phases 2 & 3 Storm Water Quality, Martin County – Ms. Lindsay was listed as the project manager in-charge of this project located in Port Salerno, Florida. Establish horizontal & vertical control. Perform a supplemental Topographic Survey for the proposed storm water quality retrofit to acquire 30 partial cross sections around the perimeter of the site. Acquire spot shots within the wetland. Locate the limits of the vegetation east of Pemrose Way. Acquire a cross section down the middle of S.E. Colee Avenue at the Manatee Creek. Stake out the limits of the wetland and locate flags.

Becker Road, St. Lucie County – Ms. Lindsay was the main contact person on this project for a full design survey located in St. Lucie County for 3.8 miles for Becker Road. We reviewed records provided by the City of Port St. Lucie. Vertical control was established. All visible above ground improvement were located. Cross sections of the corridor at 100' intervals were obtained. A topographic survey and legal descriptions for acquisition and easements were prepared. Permanent reference monuments for the baseline of survey outside areas of construction for the length of the project with horizontal and vertical (X,Y,Z) values were established. Provided QA/QC services on a regular basis to complete an AutoCAD drawing for the client.

DAVID JOSEPH WICHSER, P.S.M.

EDUCATION Indian River Community College Course work - Pre-Engineering and Surveying; University of Florida - Pre-Engineering.

Confined Space Entry OSHA

LICENSED: Professional Surveyor and Mapper: State of Florida, 1996, #5565

SUMMARY OF EXPERIENCE

Mr. Wichser has been involved in numerous land surveying projects throughout South Florida since 1981. Proficient in Boundary, Topographic, Geodetic, Hydrographic, Sectional, Construction and Transportation Design Surveys, he is extremely well-versed in the use of Electronic Field Book (EFB), CAiCE, Microstation, and GEOPAK software. He is also knowledgeable in the use of G.P.S. David is well versed in the development of digital terrain models using CAiCE software. David's experience both in the field and in the office combine to allow him to take a survey task, research it, calculate the boundary and then determine the actual real property in the field based on the historical plat data and the field location of actual corners.

RELEVANT EXPERIENCE:

S.I.R.W.C.D. Palm Beach Country Estates – Palm Beach County – Direct and support field crews for this Water Main Improvement Project on 47 miles of rural residential streets. Establish horizontal and vertical control. Stake the center of the proposed water main at 100-foot intervals including all bends, tees, gate valves, air release valves and water meters, etc. Perform an as-built survey of the waterline and prepare As-Built drawings.

KANNER HIGHWAY FIRE STATION NO. 23 – Martin County – Mr. Wichser was the project surveyor on this site located in Stuart, Florida. Recover the property corners and stake the silt fence on site. Stake the building pad for fill with offsets and grades. Stake the building for construction with offsets and grades. Stake the top of bank of the retention area with grades. Stake the drainage structures with offsets. Stake the sanitary clean outs. Rough stake the parking area and driveway for site leveling and subgrade. Final stake the parking and driveway for finish asphalt/concrete grade. Stake the offsite turn median cut and offsite closing of the median cut. Perform a formboard survey before the slab is poured per City of Stuart Standards. Perform a Final/Asbuilt Survey at the completion of the project.

DARWIN HIGH SCHOOL - St. Lucie County - Survey of existing recreation facilities west of the High School extents for Ball Field expansion, additional tennis courts and filling of swales/irrigation pond. Preparation of two sketch and legals for lift station easement and watermain easement. Locate and survey existing force mains east of Darwin Boulevard including top of pipe elevations and update the Boundary Survey showing all the data collected. Supplied client with AutoCAD drawing of survey.

Kevin E. Aubry, P.E.

Principal Engineer

DUNKELBERGER
engineering & testing, inc.

Project Assignment:

Principal Geotechnical Engineer

Education:

B.S. in Civil Engineering, Clemson University, 1975

M.S. in Civil (Geotechnical) Engineering, Utah State University, 1981

Years Experience:

With current firm: 10

Total: 29

Organization:

American Society of Civil Engineers (ASCE)

Registration:

Professional Engineer – Florida (No. 38175)

Publications:

“C-43 West Basin Storage Reservoir - Design of Embankment Gated Discharge Structures Considering Soil Bentonite Cutoff Wall”, Association of State Dam Safety Officials, September 2008

Mr. Aubry specializes in the earthwork and underground components of civil engineering projects that range from land development to roads and bridges to water resources. Following receipt of a Master of Science in 1981, he has more than 29 years experience as a Geotechnical Engineer.

Mr. Aubry, principal-in-charge of the West Palm Beach office of Dunkelberger Engineering & Testing, Inc. (Dunkelberger), is responsible for coordinating daily functions of the geotechnical engineering department including client contact, field crew coordination, project management, laboratory soils classification, geotechnical engineering analysis, development of foundation recommendations, and reporting.

Mr. Aubry's representative geotechnical experience includes the following:

- Proposed 5 MG Storage Tank, East Central Regional Wastewater Treatment Plant (WWTP), West Palm Beach, Florida
- Palm Beach County Royal Palm Beach Wastewater Pump Station, Royal Palm Beach, Florida
- La Mancha Pipeline extension, Royal Palm Beach, Florida
- Wastewater treatment facility (WWTF) expansion, Wellington, Florida
- WWTF improvements, Royal Palm Beach, Florida
- Watermain transmission main extension Phase II, Wellington, Florida
- Proposed Lift Stations 19, 57, and 80, Delray Beach, Florida
- Hidden Valley water and wastewater improvements, Boca Raton, Florida
- D-8 Stormwater Pumping Station expansion, Palm Beach, Florida
- Area 4 Reclaimed Water System, Delray Beach, Florida
- Northern Region utility improvement, Palm Beach Gardens, Florida
- Modifications D-9 Stormwater Pumping Station, Palm Beach County, Florida
- Proposed 450 CFS Pump Station, Palm Beach County, Florida
- Lift Station 88, Frenchman's Landing, Palm Beach Gardens, Florida
- WWTF expansion, Seminole Improvement District, Loxahatchee, Florida
- Monroe Drive and Monceaux Road, Group I and II, West Palm Beach, Florida

JEFFREY C. POPPE

EDUCATION:

Kings Park Senior High School, Kings Park, NY	June 1981
Farmingdale Community College, Farmingdale, NY	1981-1982
Suffolk Community College, Selden, NY Major: Business Administration Minor: Electronics	1982-1984

RELATED WORK EXPERIENCE:

GROUND HOUND DETECTION SERVICES, INC., Founder, President	1994-Present
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- Identified need for providing quality location information focused on privately owned utilities, developed business plan and started firm
- Engaged in all facets of business development, project management and field operations
- Developed and implemented plan to assist engineers and architects with incorporating utility information into project design at the planning stage, resulting in cost savings and added safety
- Developed client base including: local and federal governments, government contractors, manufacturers, schools, healthcare plant, military branches
- Services provided statewide

S.T.S., INC., ORLANDO, FL	1986-1994
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- Advanced from field locator / technician to Eastern Operations Area Manager
- Managed 5 county territory with 27 employees and annual sales in excess of \$1.5 million
- Initiated cost containment measures which increased net profit by %20+
- Implemented safety management programs and office procedures within each area
- Marketing of company's services
- Responsible for training and development of managers and supervisors
- Successfully negotiated to reduce or eliminate payment for property damage claims
- Responsible for: Collection of Aged Accounts Receivable, Accounts Payable, Payroll, Budgeting, Purchasing and Inventory
- Quality control inspections-insured that cable locates conformed to contract specifications
- Trained and evaluated performance of employees

SPECIAL SKILLS/CERTIFICATIONS:

- Certified by National Safety Council in Confined Space Entry
- BP Global Alliance Safety Certified
- Certified by Radiodetection Corp, MALA Geoscience
- Proficient at reading topographic/boundary/aerial surveys, utility engineered/as-built drawings, knowledgeable of the operations and dynamics of numerous public and private utility systems
- Extensive knowledge electromagnetic theory

OTHER:

- Assisted well-known manufacturers in development of new utility locating equipment
- Speak at various industry seminars
- Sought by others for specialized expertise and knowledge

SEAN R. HALSEY

EDUCATION:

Alton High School, Alton, IL June 1990
Lewis & Clark College, Godfrey, IL 1990-1992

RELATED WORK EXPERIENCE:

GROUND HOUND DETECTION SERVICES, INC. 2002-Present

- South Florida Area Manager
- Oversee, coordinate and manage field operations and personnel throughout the South Florida territory
- Crew Chief/Lead Technician
- Responsible for on site project coordination and utility surveying operations
- Perform on site data collection utilizing basic survey techniques and equipment
- Train and evaluate performance of crew members
- Responsible for company photography for use in marketing material

PARADIGM, LLC, GRAND JUNCTION, CO 1999-2002

- Utility Locate Technician, Western Slope Region of Colorado
- Responsible for the coordination, routing and location of all contracted utilities for the region
- Provided horizontal locations of: QWEST Communications, Public Service Gas & Electric, AT&T Broadband Services

S.R. HALSEY PHOTOGRAPHY, BREKENRIDGE, CO, Free Lance Photographer 1993-1997

SPECIAL SKILLS/CERTIFICATIONS:

- Exxon-Mobil Loss Prevention Safety certified
- BP Global Alliance Safety certified
- Additional Training by Radiodetection Corp, MALA Geoscience
- Smith System Defensive Driver Training and Fatigue Management Certification
- Proficient at reading topographic/boundary/aerial surveys, utility engineered/as-built drawings,
- Extensive knowledge in the performance and use of: Ground Penetrating Radar, Electro-Magnetic Induction, Magnetometers, Heliflux Magnetometers, Vacuum Excavation Systems, Pipeline Inspection Systems, Multi-testers

SECTION 2: TASK APPROACH

This section will summarize Holtz Consulting Engineers, Inc. (HCE) approach to assisting the City of Stuart (City) with implementing your water main rehabilitation projects. Our approach for completing individual projects for this program in the most cost-effective and timely manner is outlined herein. Specific activities proposed to ensure that each project is implemented in conformance with the high-quality standards that the City of Stuart expects and deserves are also discussed.

The project generally consists of assisting the City with the following work:

- Planning and application for the State Revolving Fund (SRF) low-interest loan program, including preparing required documents and forms;
- Surveying, site investigation, and field data collection;
- Prioritization of the water distribution rehabilitation projects;
- Design;
- Permitting;
- Bidding;
- Construction administration of a phased program to install new water mains in the areas of the City of Stuart currently served by older small-diameter mains;
- Public relations and coordination.

2.1 PROJECT BACKGROUND

In the approximately 100 miles of pipe that comprise the City of Stuart water distribution system there are over 107,000 linear feet (20 miles) of older small-diameter water mains 4-inches or smaller. Over half of these are 2-inch or smaller galvanized water mains that are a continuous maintenance issue for the City as they are constantly breaking and are installed in most cases with less than 24 inches of cover. These shallow older mains pose a public health risk when there are main breaks and boil water notices must be issued. These small water mains also do not provide adequate fire protection.

Replacement of the small-diameter mains within the distribution system will improve water quality and system reliability, increase water pressure in some areas, and maintain adequate flows throughout the system. Additionally, and equally as important, these improvements will provide adequate fire protection in portions of the community previously without fire protection or inadequate fire flow.



Replacement of small water mains will provide fire protection to neighborhoods.

In addition to the small-diameter water main replacement, there are also several new mains that need to be installed as well as an existing 6-inch water main that needs to be upsized to increase water pressure and fire flow for areas with low flow within the City's service area.

The oldest portions of the City's water system date back to the 1920's and the entire current service area is in existing, established neighborhoods. HCE understands the significant importance of public involvement in infrastructure projects located in existing neighborhoods, and has extensive experience in successfully implementing numerous projects such as the projects proposed as part of this scope of services.

2.2 PROJECT APPROACH

HCE understands the importance of providing the City of Stuart with top-quality, cost-effective and timely engineering services for the water distribution system rehabilitation program. We are committed to meeting the City's needs with respect to quality, compliance with schedules and budgets, and ensuring that each aspect of the project is thoroughly evaluated and our project designs provide the most efficient, reliable system possible.

2.2.1 State Revolving Fund (SRF) Loan Program



HCE staff has significant experience helping utilities obtain SRF loans.

HCE will work closely with the City to assist in obtaining funding for the water main rehabilitation projects through the Florida Department of Environmental Protection's (FDEP) Drinking Water SRF Program. Our successful experience with grants and funding programs for numerous other local communities will aid the City tremendously. As obtaining funding is a crucial step in proceeding with the projects, positioning for low-interest SRF loans will be the first step in the water main rehabilitation program for the City.

Deadlines for the SRF application are on May 15, August 15, November 15, and February 15 of each calendar year. A Request for Inclusion (RFI) on the Priority List for Drinking Water Facilities will need to be submitted first to be considered for funding eligibility.

Following inclusion on the SRF priority list, the planning document comprised of the following items must be prepared:

- Executive Summary
- Environmental Effects/Benefits
- Development of Alternatives and selection of a Preferred Alternative
- Public Participation Process
- Financial Feasibility

- Schedule
- Adopting Resolution

HCE will coordinate closely with City staff to ensure that the RFI and planning documents are thorough, complete, and timely. Our staff's extensive experience with the SRF loan program can be leveraged to facilitate partnerships and provide expert support in preparing and presenting this application package.

2.2.2 Preliminary Design

Our preliminary design analysis will include evaluating the pipe routes, pipe sizes, pipe materials, and construction methods best suited for each area of the City program. We will conduct hydraulic modeling of the existing and proposed water distribution system to ensure optimal pipe size, adequate water flow velocity and fire flow. The analysis will compare options available for each aspect of the project. HCE will present the options and associated costs to the City and decide as a team as to the best approach and most cost effective solution.

2.2.3 Survey, Final Design and Permitting

After a specific project is authorized by the City, the surveying and site investigation will be completed. Betsy Lindsay will prepare a detailed site survey locating all right-of-ways, easements, property lines, topographic information, buried utilities and surface features including driveways, mail boxes, valve and meter pits and trees and shrubs.

The HCE Team will then prepare detailed drawings and specifications depicting the new water mains, including all pipes, valves, hydrants, and service connections. Detailed specifications will be prepared to supplement the design drawings, with detailed description of specifications for all materials, construction and testing requirements, as well as bidding and contract requirements. For areas where the exact location of underground utilities is not known, Ground Hound Detection Services will be called in to locate them, and will coordinate utility locates with Betsy Lindsay. Limited geotechnical investigation will be provided by Dunkelberger if soil type and groundwater elevation must be known. Design documents will be prepared at the 30-, 60-, and 90-percent completion levels for review by the City and benefitted parties. HCE will also prepare updated cost estimates at the 60- and 90-percent completion level based on the design documents and unit prices for recently-bid projects.



HCE Team members have provided surveying and design services on numerous City of Stuart water main projects.

Value Engineering, quality assurance, and constructability reviews will be conducted during the design phase as described later in this section to ensure that the most optimal design is prepared to ensure ease of construction and limit project costs. HCE will review the draft documents and cost estimates with the City and, if necessary and at the wish of the City, property owners. HCE will incorporate all comments received after each review.

HCE will apply for all permits required for the project at the 60-percent design level. Permits will be required from the FDEP for the new water mains. HCE will hold a pre-submittal meeting with FDEP if required prior to submitting the permit application and signed-and-sealed drawings. We will communicate regularly with FDEP during the permit review process and will promptly answer all requests for additional information received. After the draft permit is received, HCE will thoroughly review the permit and provide review comments to FDEP prior to finalization of the permit. Additionally, HCE will also apply and submit for permits that may be required from Martin County and/or the Florida Department of Transportation, depending on the right-of-way within which construction will occur.

2.2.4 Bidding Phase/Procurement Services

HCE will assist the City with procurement of contractors for all projects. HCE will prepare the legal advertisements and will assist with distribution of bidding documents to interested contractors, suppliers and plan rooms. HCE will also notify quality local quality contractors and inform them that the projects are advertised for bid. HCE will preside over pre-bid meetings to review the project, receive and answer questions from contractors, and conduct site visits. Answers to questions from contractors and any modifications or clarifications required to

the bidding documents will be provided in written addenda that will become part of the contract documents.



HCE will work closely with potential contractors to ensure the City receives fair and competitive bids.

After bids are received, HCE will review all bids for accuracy and compliance with the bidding requirements to ensure the bids are responsive, and prepare bid tabulations for each project. We will contact references for the three low bidders for each of the projects to make sure the contractors are responsible and will review financial statements and check with the State to ensure that the contractor and bonding company are in

good standing. We will then prepare a recommendation of award for the construction contract to the lowest responsive, responsible contractor.

After the contracts are awarded, HCE will prepare a Notice of Award for

signature by the City, and will transmit it and the required sets of completed contract documents to the contractors for execution and inclusion of bonds and insurance certificates. After the contracts are signed and returned by the contractors, we will check the documents, bonds and insurance certificate and provide them to the City for execution. Copies of signed-and-sealed drawings will be provided to the contractor for their use in obtaining building permits and any other permits required for work in right-of-ways. A preconstruction conference will be held with the contractor to discuss project coordination issues and the Notice to Proceed will be issued.

2.2.5 Construction Services

One of the main reasons HCE is so successful performing construction services is that we not only know construction, we are also specialists in water and wastewater infrastructure. Since HCE is typically involved in all aspects of these projects from initial planning through design and construction, we have an in-depth understanding of those elements that are critical to a successful project.

During construction, HCE will administer the construction contract to ensure compliance with the design intent, permits, and the contract documents. HCE will review all submittals, including the project schedule, schedule of values, shop drawings, pre-construction site videos, and other submittals defined in the documents. HCE staff will conduct site visits at critical stages of the project to ensure that construction is conducted in conformance with the contract documents and to monitor the status of construction. HCE will provide timely response to all requests for information from the contractor and will help resolve any conflicts or issues that arise during construction. We will hold periodic progress meetings with the City and the contractor and will review monthly pay requests and schedule updates. We will make recommendation of payment of the amount earned to date less retainage. Any changes to the contract documents that affect contract time or price will be made via a change order negotiated with the contractor and approved by the City.



HCE will partner with contractors and will ensure the project is completed on time and within budget.

HCE will also prepare and transmit all disbursement requests directly to the FDEP office in Tallahassee for processing of payments through the SRF loan program. We have extensive experience with this program and have a thorough knowledge of all the required documents the FDEP will need for processing. HCE staff will work with the contractor to ensure that all payrolls are in compliance with Davis Bacon requirements, keep track of SBE/MBE subcontractor

participation, and conduct labor interviews at required stages of construction to ensure all state and federal requirements are in compliance.



HCE has extensive experience with projects involving the installation of new water mains in crowded right-of-ways.

HCE will provide construction inspection services in order to certify proper completion of the project to the FDEP and other permitting authorities. Site visits will be conducted to observe construction activities and confirm compliance with the contract documents. HCE will require and review testing during construction, including compaction density and pressure tests. HCE staff will witness all pressure tests. We will review construction as-built drawings and mark-ups prepared by the contractor to ensure that they are

up to date and accurately depict any changes made in the field. After construction is substantially complete, HCE will conduct a comprehensive inspection and punch list of remaining work to be completed. HCE will perform follow-up inspections to ensure that all punch list items are completed to the satisfaction of the City and property owners, and will coordinate the completion of all project close-out documents. HCE will certify completion of construction and submittal of signed-and-sealed record drawings and bacteriological and pressure test results to the FDEP.

HCE will also inspect the installation of the service connections on private property if requested to ensure compliance with the City's policies and standard details.

During all phases of construction, HCE will communicate regularly with all stakeholders, including the City, contractors, regulatory agencies and property owners. We will attend homeowner's association meeting as necessary to ensure that all affected residences are aware of project status and their concerns are addressed. HCE will act as a liaison between the contractor and property owners to make sure all restoration is conducted to the satisfaction of all parties and in conformance with the contract requirements. One year after construction is complete, HCE will conduct a warranty inspection and will coordinate the resolution of any warranty issues with the contractor.

2.3 COMMUNICATION AND SCHEDULE MONITORING

In order to monitor project status and schedule, HCE suggests holding bi-weekly or monthly project meetings during construction. Progress reports prepared by the contractor will be evaluated at each meeting including detailed information on the construction status, permit status, project schedule, potential contractor

change orders, and other pertinent aspects of the work. HCE will prepare and distribute minutes of these meetings to memorialize any decisions made and direction given. This frequent communication ensures that the City is fully aware of the status of the work and that the schedule and budget are being monitored and adhered to. HCE will monitor construction progress by comparing progress of pipe-laying activities on a weekly basis to the contractor's original schedule. Should the project schedule slip, HCE will ensure that the issue is quickly addressed and rectified by requesting the Contractor to add crews and/or work extended hours. Closely monitoring the contractor's progress with their original schedule on a weekly basis will guarantee that the project will stay on schedule.

HCE is committed to providing the City with the highest quality engineering services possible. We believe we have proven our commitment and dedication on past and current projects for other local utilities and hope you contact our references listed in Section 7. We look forward to the opportunity to demonstrate our commitment and value on these important water main replacement projects for the City of Stuart. Our approach to satisfying our clients is to perform our work to the highest quality, on time and without any change orders or amendments for minor changes in the scope.

2.4 COST-EFFECTIVE DESIGN APPROACH

HCE understands the importance of providing the City with a cost-effective design for all of the water main projects. We are committed to ensuring that each aspect of the project is thoroughly evaluated and the design recommendations provide the most efficient and reliable system possible with minimal impacts to the neighborhoods during construction. Our preliminary design analysis will include an evaluation of the pipe route, pipe size, pipe materials, and construction methods as well as other components of the project. The analysis will compare options available for each aspect of the project and provide a cost comparison of the options. HCE will present the options and associated costs to the City and work with the City in selecting the final design approach.



HCE's project approach, firm size, and familiarity with similar projects will result in a cost-effective design.

During the design HCE will conduct internal constructability reviews and value engineering analysis to ensure minimal construction change orders and that the most cost-effective design approach is being implemented. Where necessary, HCE will consult with experienced contractors to ensure that the design approach is reasonable and constructable. Additional information pertaining to our value engineering and constructability reviews is presented in Section 2.5.

The following is a brief description of the analysis that HCE will provide for the major aspects of the project.

2.4.1 Pipeline Route

The most cost-effective pipeline route would include constructing new pipelines within public right-of-ways and existing City easements. This eliminates the costs and time required to obtain additional easements or property. In addition, the route selected should have minimal road crossings and impacts to paved or landscaped areas which can be expensive to restore and increase the impact the construction has on local residents. The optimal replacement water main location will also minimize disruptions during construction and facilitate ease of transfer of service connection to the new water main, provide adequate spacing from existing force mains and stormwater facilities, and locate fire hydrants on property lines where possible as well as work with the direction of the Fire Marshall.

2.4.2 Pipeline Size and Materials of Construction



The City of Stuart will benefit from HCE's knowledge and experience with various pipe materials and installation methods.

Pressure pipes are generally constructed of three different materials of construction: polyvinyl chloride (PVC), ductile iron, and high-density polyethylene (HDPE).

Since pipe prices are constantly fluctuating with the price of oil, a detailed analysis will need to be performed during the preliminary design phase to verify which pipe material would be the most cost efficient for this project. Additionally, HCE will perform hydraulic modeling to minimize

the pipe sizes as well as provide adequate fire flow protection and meet all Fire Marshall and state and federal requirements.

2.4.3 Direct Purchase of Materials

The purchasing of construction materials directly by the City can save the cost of sales tax. For these projects the pipe, fittings, hydrants, polyethylene service lines and appurtenances such as valves and restraints may be appropriate items to direct-purchase due to the large quantity required.

One procurement approach to realize a sales tax savings that HCE staff has utilized in the past is summarized below. During the design phase, HCE would develop contract language to be included in the construction bid documents so

that the contractors' bids would include sales tax for the materials. During the early phases of the construction process, the contractor would submit the cost proposals from the material suppliers to the City. The City would issue a purchase order directly to the suppliers for the amount of the proposal minus the sales tax, and would issue a deductive change order to the contractor for the price with tax included. This method reduces the risk assumed by the City because the contractor is responsible for competitively pricing the materials, ensuring that the materials meet the requirements of the contract documents, and that the quantity of the materials is correct and coordinating the timely delivery of materials to the project site.

2.4.4 Cost-Effective Engineering Services

HCE's engineering fees will be minimized as HCE has limited overhead cost, competitive hourly rates, no learning curve, and the team members working on the projects are located close to the project. HCE will not seek change orders or amendments to request additional compensation for minimal changes in the scope of work.

2.5 VALUE ENGINEERING/VALUE ANALYSIS & QUALITY ASSURANCE/QUALITY CONTROL

During the design of the projects, the HCE team will conduct an internal analysis to ensure that the most cost-effective construction approach is being implemented and to ensure the project cost is within budget and potentially reduce project costs where possible.

For these projects, specific value engineering considerations that will be evaluated include:

- Ensure selected piping routes are the most cost-effective.
- Avoid conflicts as shown on the plans wherever possible.
- Minimize pavement/sidewalk and landscaping restoration.
- Look at other field conditions which may warrant changes that allow cost reductions.
- Materials of construction.
- Require quality pre-construction video to document existing site conditions.



HCE will assist the City of Stuart in continuing to be responsible with rate-payer's funds.

HCE will adhere to City requirements and standards, and maintain responsibility for accuracy and completeness of the services and designs we and our sub-

consultants provide. HCE has an internal quality assurance/quality control (QA/QC) program designed to minimize construction change orders and to ensure that the design documents are constructible once they are awarded for construction. These internal quality assurance reviews result in a cost-effective project by reducing change orders which add to the overall cost of the project because their costs are typically negotiated, not competitively bid. The QA/QC program outlines procedures encompassing the design and document preparation phase through the construction phase of our projects. Program components included: design phase protocols and calculation review, a project document review process, establishment and adherence to standardized plan sheets, design details and construction specifications, Computer Aided Design and Drafting (CADD) Standards, and development and adherence to construction phase protocols. All technical documents - plans, specifications and reports - are reviewed and checked in detail by experienced and qualified personnel prior to submittal to the City.

The HCE Team will be responsible for all work performed for the City. Each of the assigned subcontractors will be furnished a milestone schedule and task or activity budget, work scope and quality objective which will be the basis for evaluation of performance. HCE's project manager, Christine Miranda, PE will coordinate with each subcontractor to ensure adherence to schedule, plans, and commitment of adequate resources.

SECTION 3: PAST PERFORMANCE

HCE staff has extensive experience in all aspects of water distribution engineering. HCE currently serves as the general consulting engineer for several local water and wastewater utilities, including Martin County Utilities, South Martin Regional Utility, the Seacoast Utility Authority, Palm Beach County Water Utilities Department, and the East Central Regional Water Reclamation Facility in West Palm Beach. As their general consulting engineer, HCE performs engineering evaluations and alternatives analysis, planning and implementation of a variety of capital improvements, and assists with ongoing technical support services, operations assistance and miscellaneous engineering tasks. HCE staff regularly attends board meetings, community meetings, and meetings with regulatory agencies on behalf of our Clients. HCE takes pride in our responsive and efficient engineering service to local utilities and is confident that we can provide quality service and value to the City of Stuart in assisting with implementation of your water distribution system rehabilitation program.

HCE staff has implemented numerous water distribution system improvement and rehabilitation projects, both at HCE and at previous firms. These projects included large and small diameter piping that have been installed via traditional open-cut methods and by trenchless technologies such as horizontal directional drilling and jack-and-bore methods. HCE staff has worked with utilities to implement water and wastewater infrastructure improvement projects in a variety of innovative ways, including public bidding, the use of on-call contractors, piggy-backing of other publicly-bid governmental contracts, design-build contracts and through the use of in-house utility staff. HCE has exhibited the flexibility to assist local utilities with implementation of projects in the most expeditious and cost-effective manner. Our staff provides engineering services during the construction phase to ensure compliance with the contract documents and permit conditions, and has developed good relationships with FDEP and other local regulatory agencies.

HCE staff has also assisted utilities with obtaining permits for infrastructure improvement projects from the following regulatory agencies:

- The Florida Department of Environmental Protection (FDEP).
- FDEP Environmental Resource Permitting Department.
- Martin County Health Department.
- Palm Beach County Health Department.
- Martin County Engineering, Utility, and Traffic Departments.
- Florida Turnpike Authority.
- Florida Department of Transportation.
- U.S. Army Corps of Engineers.
- South Florida Water Management District.
- Local municipalities and drainage authorities.

3.1 Water Distribution System Improvements

A summary of recent and ongoing projects similar to the City of Stuart's water distribution system rehabilitation program conducted by HCE and their staff is provided below.

3.1.1 Seacoast Utility Authority – Cypress Island Force Main Replacement

HCE performed design, permitting, contract negotiations, and services during construction for the replacement of an existing water main and force main via horizontal directional drilling adjacent to an existing bridge to serve the Cypress Island development in Palm Beach Gardens. Once the new mains were directionally drilled and connected to the existing mains, the portions of the existing mains that crossed the waterway aerially were removed. HCE designed the project to allow the construction to occur without disrupting the single access road to the island community.



Careful planning and coordination of work minimized impacts for the residents of Cypress Island

Total Value:	\$105,000
Year Completed:	2011
Client:	Seacoast Utility Authority
Contact:	Jim Lance Construction/Development Manager Seacoast Utility Authority 4200 Hood Road Palm Beach Gardens, FL 33410
Phone:	(561) 627-2900

3.1.2 Seacoast Utility Authority – Frenchman's Creek Water Main Replacement



HCE assisted in the replacement of water mains in the Frenchman's Creek Development.

HCE performed engineering services to design, permit, and manage construction of the replacement of water mains and fire hydrants along two residential roads in the Frenchman's Creek development in Palm Beach Gardens. As part of the design, various methods of construction were evaluated including traditional open cut methods, trenchless technologies utilizing high density polyethylene piping or fusible PVC pipe. During the evaluation, it

was determined that while open cut methods would be more disruptive to the residents, it would be more cost effective and significantly shorter in construction duration. During construction, HCE staff worked with SUA personnel to alleviate resident's concerns, restore landscaping, roadways, and sodding to the resident's satisfaction, and to streamline construction duration.

Total Value: \$110,000
 Year Completed: 2010
 Client: Seacoast Utility Authority
 Contact: Bruce Gregg
 Director of Operations
 Seacoast Utility Authority
 4200 Hood Road
 Palm Beach Gardens, FL 33410
 Phone: (561) 627-2900

3.1.3 South Martin Regional Utility – Jupiter Island Reclaimed and Water Mains

HCE prepared design drawings and obtained permits for the installation of new potable water lines to serve Jupiter Island. The new 8-inch HDPE lines were installed via horizontal directional drilling to minimize disruptions to the community. The new water mains were constructed via piggy-backing of a project to install underground electrical service to Jupiter Island.



HCE assisted SMRU with piggy-backing an existing contract to reduce construction costs.

Total Value: \$500,000 (approx.)
 Year Completed: 2007
 Client: South Martin Regional Utility
 Contact: Shannon Dunne
 Director of Utilities
 South Martin Regional Utility
 Post Office Box 395
 Hobe Sound, FL 33475
 Phone: (772) 546-6259

3.1.4 South Martin Regional Utility – Jupiter Island Water Main Interconnections

SMRU completed the installation of a parallel potable distribution system adjacent to the existing water distribution system on Jupiter Island. HCE performed hydraulic modeling and analysis to determine the optimal locations for interconnections of the new mains to the existing system to improve water age, flushing velocities, and water quality on Jupiter Island. The proposed interconnections were then evaluated based on constructability, capital costs, and perceived public opinion. From those four factors, the list of potential

interconnections was narrowed down to nine locations.

These nine interconnections on Jupiter Island were then designed, permitted, bid through piggy-backing of the Martin County Continuing Contract, and constructed. HCE staff worked with SMRU, the Florida Department of Environmental Protection, the Contractor, and the residents of Jupiter Island to ensure that the project was constructed in a short duration during the off-season to minimize disruptions to the residents.



HCE evaluated and implemented water main interconnections to improve water quality on Jupiter Island.

Total Value: \$205,000
 Year Completed: 2010
 Client: South Martin Regional Utility
 Contact: Shannon Dunne
 Director of Utilities
 South Martin Regional Utility
 Post Office Box 395
 Hobe Sound, FL 33475
 Phone: (772) 546-6259

3.1.5 Seacoast Utility Authority – 36-Inch and 24-Inch Water Main Extensions at the Hood Road WTP and Alternate A1A

HCE provided engineering services for the installation of a 36-inch water main onsite at the Hood Road WTP and the installation of a 24-inch water main along Alternate A1A. The 24-inch water main was originally designed as three separate horizontal directional drills utilizing ductile iron pipe. However, during construction, HCE worked closely with the Contractor to develop an alternate proposal to install the water



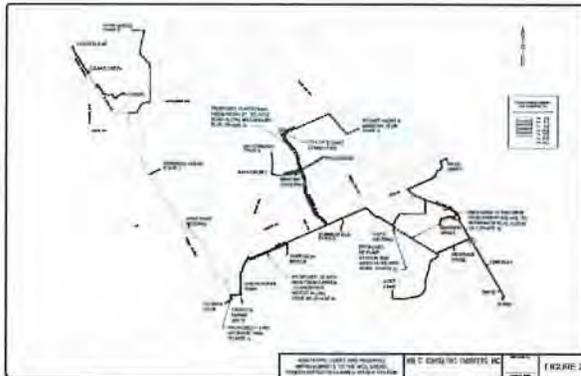
HCE helped SUA with installing new water mains in a very tight corridor

main via traditional open-cut methods. HCE negotiated a deductive change order for approximately \$400,000. This project was completed ahead of schedule due to extensive coordination with residences, the Florida Department of Transportation, Palm Beach County

Roadway and Seacoast Utility Authority.

Total Value: \$1,610,000
 Year Completed: Ongoing
 Client: Seacoast Utility Authority
 Contact: Jim Lance
 Construction/Development Manager
 Seacoast Utility Authority
 4200 Hood Road
 Palm Beach Gardens, FL 33410
 Phone: (561) 627-2900

3.1.6 Martin County Utilities – Reclaimed Water Hydraulic Modeling Analysis of Reclaimed Water System (City of Stuart & SMRU)



The project included a hydraulic modeling and alternatives analysis to evaluate improvements needed to convey reclaimed water from the City of Stuart to South Martin Regional Utility via Martin County's distribution system while serving existing customers. The project included the field-testing of the existing MCU Reclaimed Water Distribution System in order to calibrate the hydraulic model with the assistance of MCU, SMRU and City of Stuart staff. Once the hydraulic model was calibrated a hydraulic evaluation was

HCE is familiar with assisting local utilities such as the City of Stuart, SMRU, and MCU with implementing distribution improvement projects.

performed. Based on the results of the modeling, capital improvements required to deliver reclaimed water to Martin County's existing customers while serving South Martin Regional Utility were recommended and the associated costs were developed.

Total Value: \$15,000
 Year Completed: 2012
 Client: South Martin Regional Utility
 Contact: Shannon Dunne
 Director of Utilities
 South Martin Regional Utility
 Post Office Box 395
 Hobe Sound, FL 33475
 Phone: (772) 546-6259

3.1.7 Seacoast Utility Authority – Nanofiltration Concentrate Main from the Hood Road WTP to the PGA WWTP

The project included the design, permitting, bidding and services during construction of the installation of a new 3.8 mile 16-inch pipeline from the Hood Road WTP to the PGA WWTP to convey nanofiltration concentrate from the Hood Road WTP to the PGA WWTP. The nanofiltration concentrate will be blended at the PGA WWTP with reclaimed water and distributed to their existing reclaimed water customers. In addition to the 16-inch main, a 2-inch fiber optic conduit was installed in the same trench as the concentrate main to allow for the future installation of a fiber optic system that allows for communication between Seacoast facilities. This project included the horizontal directional drilling of Military Trail, Interstate 95, Florida's Turnpike, Central Boulevard, and Jog Road. Work included coordination with various permitting authorities and home owner associations.



HCE provided design and construction services for installation of a new pipeline through existing neighborhoods and golf courses.

Total Value: \$2,450,000
 Year Completed: Ongoing
 Client: Seacoast Utility Authority
 Contact: Jim Lance
 Construction/Development Manager
 Seacoast Utility Authority
 4200 Hood Road
 Palm Beach Gardens, FL 33410
 Phone: (561) 627-2900

3.1.8 South Martin Regional Utility – Available Fire Flow Analysis in Hobe Sound and Jupiter Island Fire Flow Availability Analysis

At the request of the Martin County Fire Marshall, the available fire flow throughout SMRU's service area was predicted utilizing a hydraulic model of their water distribution system. The work performed by HCE included performing fire hydrant testing, updating the model to include all known water mains, and calibration of the existing model based on the fire-flow testing. Once the hydraulic model was calibrated, a hydraulic evaluation was performed in order to determine the available fire flow throughout the existing potable water distribution system. A figure depicting the available fire flow was developed and submitted to the Fire Marshall for their use.

Total Value: \$15,000
 Year Completed: 2012
 Client: South Martin Regional Utility
 Contact: Shannon Dunne
 Director of Utilities
 South Martin Regional Utility
 Post Office Box 395
 Hobe Sound, FL 33475
 Phone: (772) 546-6259



HCE assisted SMRU with analyzing fire flow coverage.

3.2 HCE Staff's Prior Experience

HCE staff has also provided professional engineering services related to potable water distribution systems rehabilitation, modification, and improvement projects while working at other firms. Some relevant projects are listed below.

3.2.1 City of Stuart – CDBG Disaster Water Main Service Areas 2 and 3

Christine Miranda assisted the City of Stuart with water main replacements in 2007. The project included surveying, preliminary site investigations, engineering design, permitting, bidding assistance, and construction management services for water main improvements within the City's project service area nos. 2 and 3. The project was funded using Community Development Block Grants. The project involved the construction



HCE staff assisted the City of Stuart with the implementation of water distribution projects funded by the CDBG program.

of approximately 10,200 LF of 6-inch water main to replace existing small-diameter mains and the reconnection of approximately 92 homes in Service Area 2 and approximately 109 homes in Service Area 3. Davis Bacon wage requirements were reviewed and adhered to. The project also included the

installation of 8 new fire hydrants. Permitting was conducted through the FDEP and the Martin County Engineering Department.

Total Value: \$1,187,000
 Year Completed: 2007
 Client: City of Stuart
 Contact: David Peters
 Assistant Public Works Director
 City of Stuart
 121 SW Flagler Avenue
 Stuart, FL 34994
 Phone: (772) 288-1292

3.2.2 Martin County Utilities – Rio Community Development Block Grant Project

Christine Miranda assisted Martin County with potable water and sanitary sewer system improvements for a neighborhood in Jensen Beach. The project included surveying, design, permitting, bidding assistance, and services during construction of a gravity sanitary sewer and water main system to serve 40 residential lots (38 existing residences) located in the unincorporated Rio neighborhood of Martin County. The project included a new lift station, force main, gravity sewer mains, water mains, and reconstruction of the roadways, sidewalks, and right-of-ways disturbed by the installation of the utility improvements. The design and specifications were prepared in accordance with the qualifications of the Community Development Block Grant – Neighborhood programs and Davis Bacon wage requirements, and the rules and regulations of Martin County.

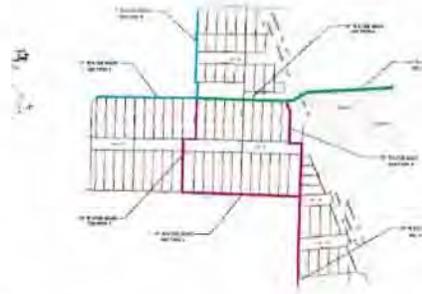


HCE staff has experience implementing projects funded through alternate funding programs such as the CDBG assistance program.

Total Value: \$1,197,000
 Year Completed: 2009
 Client: Martin County CRA
 Contact: Cathy Reeder
 Planner, Martin County Community Development
 2401 SE Monterey Road
 Stuart, FL 34996
 Phone: (772) 463-3288

3.2.3 South Indian River Water Control District – Palm Beach Country Estates Potable Water Distribution System

Christine Miranda and Brent Weidenhamer worked with South Indian River Water Control District for one of the largest residential water distribution projects in the Treasure Coast area for a new potable water distribution system in the Palm Beach Country Estates neighborhood in Jupiter. The project included the hydraulic modeling, design, permitting, bidding and services during construction for the addition of potable water to Palm Beach Country Estates, a rural area consisting of over 3,000 acres and 1,551 oversized lots. Line sizes were based on the results of a hydraulic model prepared for the project area utilizing Bentley's WaterCAD software. The project consisted on 240,000 LF of water main ranging in size from 6-inch to 16-inch, 17 horizontal directional drills (including one under the Florida Turnpike and I-95), 450 fire hydrants, services and associated roadway and site restoration.



HCE staff is familiar with all aspects of water improvement projects.

Total Value:	\$13,500,000 (approx.)
Year Completed:	2008
Client:	South Indian River Water Control District
Contact:	Mike Dillon Manager of Operations 15600 Jupiter Farms Road Jupiter, FL 33478
Phone:	(561) 747-0550

SECTION 4: FAMILIARITY WITH LOCAL CONDITIONS

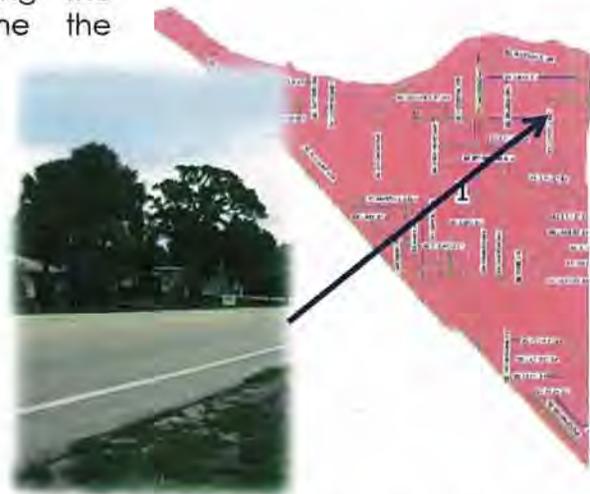
Holtz Consulting Engineers, Inc. (HCE) is familiar with the conditions necessitating the City of Stuart's (City's) water distribution system rehabilitation program. Our understanding of the City's water distribution system and the planned improvements program is summarized herein.

The City's water distribution system is comprised of approximately 100 miles of pipe, with the oldest sections dating back to the 1920's. Currently, there are over 107,000 linear feet (LF) (20 miles) of small-diameter water mains 4-inches in diameter or smaller, and half of these are 2-inch or smaller galvanized water mains. Many of these old, small, galvanized water mains were installed with less than twenty-four inches of cover, and pose a public health risk when there are main breaks and boil water notices must be issued.

Replacement of the small-diameter mains within the distribution system will improve water quality and system reliability, increase water pressure in some areas, and maintain adequate flows throughout the system. Additionally, and equally as important, these improvements will provide neighborhoods with adequate fire protection. In addition to the small-diameter water main replacement, there are also several new mains that need to be installed as well as an existing 6-inch water main that needs to be upsized in order to increase water pressure and fire flow in areas of low-flow or dead-end areas within the City's water distribution system.

In 2009, the City authorized the preparation of the "City of Stuart Water and Wastewater Needs Assessment". This planning document included the conceptual design and cost estimates for the required water distribution improvements necessary to increase water pressure and fire flows. HCE staff was involved with developing and running the hydraulic model used to determine the necessary improvements as part of the "City of Stuart Water and Wastewater Needs Assessment." In the needs assessment, the City's water distribution system was divided into eight regions and the following water distribution system proposed improvements were identified for each region:

Region 1 – Water Main Upgrades – Region 1 is a commercial and residential district in the north section of Stuart that is adjacent to the St. Lucie River and US Highway 1. In this area there will be the replacement of



Near the intersection of Ocean Blvd and Cortez Ave, the area scheduled for water main replacement consists primarily of commercial businesses. Disruption to the local businesses must be minimized during construction activities.

approximately 400 LF of 0.75-inch and 10,200 LF of 2-inch galvanized water main, and 7,100 LF of 4-inch water main.



Region 2 - Water Main Upgrades – Region 2 is in the center of Stuart and is bordered by US Highway 1 to the east and Monterey Road to the south. It is primarily a residential area with a few commercial properties. In this area there will be the replacement of approximately 600 LF of 1-inch and 1,300 LF of 1.5-inch galvanized water main, 13,200 of 2-inch and 1,300 LF of 4-inch water main.

Water main replacement is scheduled for Ila Street, an established residential area east of Kanner Highway. Existing power poles and large trees within the right-of-way should be avoided if possible during water main installation.

Region 3 – Water Main Upgrades - Region 3 is an older waterfront residential area in the western section of Stuart. In this area there will be the replacement of approximately 100 LF of 0.75-inch and 100 LF of 1-inch galvanized water main, 13,400 of 2-inch and 6,100 LF of 4-inch water main.



At the intersection of St. Lucie Crescent and Cleveland Ave, consideration must be taken for minimizing mature landscaping and sidewalk restoration during the water main replacement.



Maintaining access for local businesses and minimizing sidewalk restoration are items that need to be considered for the water main replacement scheduled on SE Martin Square Corporate Parkway.

Region 4 – Water Main Upgrades - Region 4 is a mixed commercial and residential area in the southern section of Stuart. In this area there will be the replacement of approximately 300 LF of 1-inch and 400 LF of 2-inch galvanized water main, and 800 LF of 4-inch water main.

Region 5 - Water Main Upgrades – Region 5 is an area with large waterfront homes located on the St. Lucie River and smaller older neighborhoods inland in the eastern section of Stuart. In this area there will be the replacement of approximately 700 LF of 2-inch water mains.



During construction of the water main replacements, daily access for the residents must be provided on Waveland Place, a dead-end street.



On 8th Street, a route study must be performed as part of the preliminary design. One side of the street has an existing sidewalk and mature landscaping and the other a large banyan tree with an extensive root system.

Region 6 – Water Main Upgrades - Region 6 is in the north-central section of Stuart and is primarily comprised of older residential areas with a few commercial properties bordered by Ocean Boulevard to the north and the Martin County airport to the south. In this area there will be the replacement of approximately 1,200 LF of 1-inch and 24,300 LF of 2-inch galvanized water main, 200 LF of 3-inch and 6,000 LF of 4-inch water main.

Region 7 – Water Main Upgrades - -

Region 7 is comprised of a few commercial properties, older residential areas, and waterfront homes in the north-east section of Stuart. In this area there will be the replacement of approximately 1,900 LF of 0.75-inch and 200 LF of 1-inch galvanized water main, 400 LF of 1.25-inch, 15,400 of 2-inch, 200 LF of 3-inch and 700 LF of 4-inch water main.



Maintaining access for the residents and protecting the St. Lucie River are items that must be considered for the water main replacement for Sailfish Lane, a dead-end waterfront street.



Region 8 – Water Main Upgrades - Region 8 is a commercial area in the north section of Stuart. In this area there will be the replacement of approximately 1,200 LF of 2-inch water main.

At N. Dixie Highway and NW Palm Street maintaining maintenance of traffic and working under the Roosevelt Bridge are items that need to be addressed during water main replacement construction.



Other water distribution system upgrades identified in the Water and Sewer Needs Assessment are summarized below.

Palm City Road Water Main Upgrades – Installation of 6,500 LF of 12-inch water main along Palm City Rod from S.E. Monterey Road to U.S. Highway 1 to replace an existing 6-inch water main.

Miscellaneous Water Main Upgrades – 3,950 LF of 6-inch water main, 400 LF of 8-inch water main, and 7,450 LF of 12-inch water main to provide additional water pressure and increase the available fire flow.

All of the areas identified for water distribution system rehabilitation are developed and encompass residential areas, both in newer and older sections of the City, and some commercial areas as well. During all stages of project implementation from preliminary design through construction, a proactive public involvement approach will be taken that will keep the public informed of the project, its objectives and timetables, and any challenges posed by construction. Particular attention will be paid during design and construction to avoid disruption to the residents and business owners, and ways to minimize disruption of existing landscaping and driveways that would impact residents or businesses and require expensive restoration.

HCE will participate in public meetings as the City feels necessary. HCE's staff has extensive experience working with the public on these types of projects. In most cases, minimizing impacts to the community and restoring the neighborhood to existing condition or better as well as clear and accurate communication make or break a project, more so than the design or installation of below grade infrastructure. A few ways to assist in minimizing disruption to the residents include providing contract language in the design documents that state the contractor must restore an area after a certain amount of water main has been installed prior to proceeding to the next area, statements that all driveways must be restored such that they are accessible by the end of each work day, and language that states any roadway crossing must be patched the same day. HCE is fully sensitive to these issues, and will work as a team with the City, the contractor, and residents to ensure that their customers are happy with the end result.

SECTION 5: INSURANCE

SECTION 6: CONFLICT OF INTEREST DISCLOSURE STATEMENT

Holtz Consulting Engineers, Inc. (HCE) certifies that in connection with this solicitation the information provided has been arrived at independently, without consultation, communication, or agreement with any other respondent or with any competitor for the purpose of restricting competition, or in any other way influencing the competitive arena.

HCE further represents that it presently has no interest, either direct or indirect, which would or could conflict in any manner with the performance of services for the City of Stuart. HCE represents that no person having any interest shall be employed for said performance.

HCE shall promptly notify the City of Stuart in writing by certified mail of all potential conflicts of interest that may arise in the future through any prospective business association, interest or other circumstance which may influence or appear to influence the judgment or quality of services being provided to the City of Stuart. Such written notification shall identify the prospective business association, interest or circumstance, the nature of work that the respondent may undertake and request an opinion of the City of Stuart as to whether the association, interest or circumstance would, in the opinion of the City of Stuart, constitute an unacceptable conflict of interest if entered into by HCE.

If, in the sole opinion of the City of Stuart, the prospective business association, interest or circumstance of HCE would constitute an unacceptable conflict of interest to the City of Stuart, the City of Stuart shall so state in the notification and HCE shall not enter into said association, interest or circumstance.

SECTION 7: OTHER INFORMATION

All of us at HCE realize how fortunate we are to be part of the business and social communities that we provide services for, and take great pride in taking roles in improving those communities. We are very proud of the decisions our employees make in participating in community events and taking active roles with different organizations.

HCE shows commitment to communities by doing more than making donations. We are actively involved with many charitable causes, constantly working to help those who need it most by planning, staffing and taking part of events.



The Holtz Family at the FWEA Booth at the City's Water Fest.

conservation and protecting the environment. HCE and City of Stuart staff provided information to the public on behalf of the Florida Water Environment Association and showcased a pumped water cycle model and promoted Water Environment Federation's (WEF's) new national campaign "Water's Worth It".

One of the most recent events the staff at HCE participated in was the City of Stuart's first annual "Saturday in the Park" Water Fest in honor of Water Conservation Month, Earth Day, and Drinking Water Week. This free-to-the public event was to promote and educate awareness for water



David Holtz and Christine Miranda with Don Long promoting WEF's "Water's Worth It" campaign.



Pictured to the left: Christine Miranda and Mary Kindel showcase the Sammy Mobile while supporting Breast Cancer Awareness Month.

REFERENCES

Mr. Shannon Dunne
Executive Director
South Martin Regional Utility
P.O. Box 395
Hobe Sound, FL 33475
(772) 546-6259

Mr. Ted Robbins, PE
Technical Services Administrator
Martin County Utilities and Solid Waste
P.O. Box 9000
Stuart, FL 34995
(772) 221-1442

Mr. Rim Bishop
Executive Director
Seacoast Utility Authority
4200 Hood Road
Palm Beach Gardens, FL 33410
(561) 627-2900

Mr. Mark Dubois
Director, Lines & Lift Stations
Palm Beach County Water Utilities Department
8100 Forrest Hill Boulevard
West Palm Beach, Florida 33416
Phone: (561) 493-6003

Mr. Joseph V. Carlini
Assistant Utility Director
City of West Palm Beach
P.O. Box 220507
West Palm Beach, FL 33422
(561) 644-7325

Mr. Tom Young
Project Manager
Florida Power & Light
20505 State Road 80
Loxahatchee, FL 33470
(561) 346-3789

SECTION 8: ADDENDA



City of Stuart

300 S. W. St Lucie Avenue • Stuart • Florida 34994
Telephone (772) 288-5320

Department of Financial Services

Purchasing Division
Terry Iverson, Purchasing Agent

Fax: (772) 600-1202
tiverson@ci.stuart.fl.us

Date: October 2, 2012
To: All Prospective Professionals
Subj: Addendum #1 to REI #2012-119, Professional Engineering Services for Water Distribution System Rehabilitation

ADDENDUM #1

This addendum is issued as a result of questions asked and consists of answers to these questions:

Question #1: Can you send out exhibits of the areas where galvanized pipe will be replaced?

Answer #1: Yes, see Attachment #1.

Question #2: Do you anticipate design of booster pumps or any elements that will require the participation of an electrical engineering sub consultant?

Answer #2: No.

Question #3: Will the City consider revisions to the standard contract?

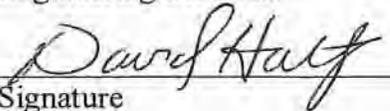
Answer #3: The City will negotiate a final contract with the most qualified professional after thorough evaluation of the submittals. The City will consider negotiated revisions to the standard Professional Services contract.

This Addendum must be acknowledged, signed and returned with your submittal. Failure to comply will result in disqualification of your submittal.

Sincerely,

Charles T. Iverson
Purchasing Manager
City of Stuart, Florida

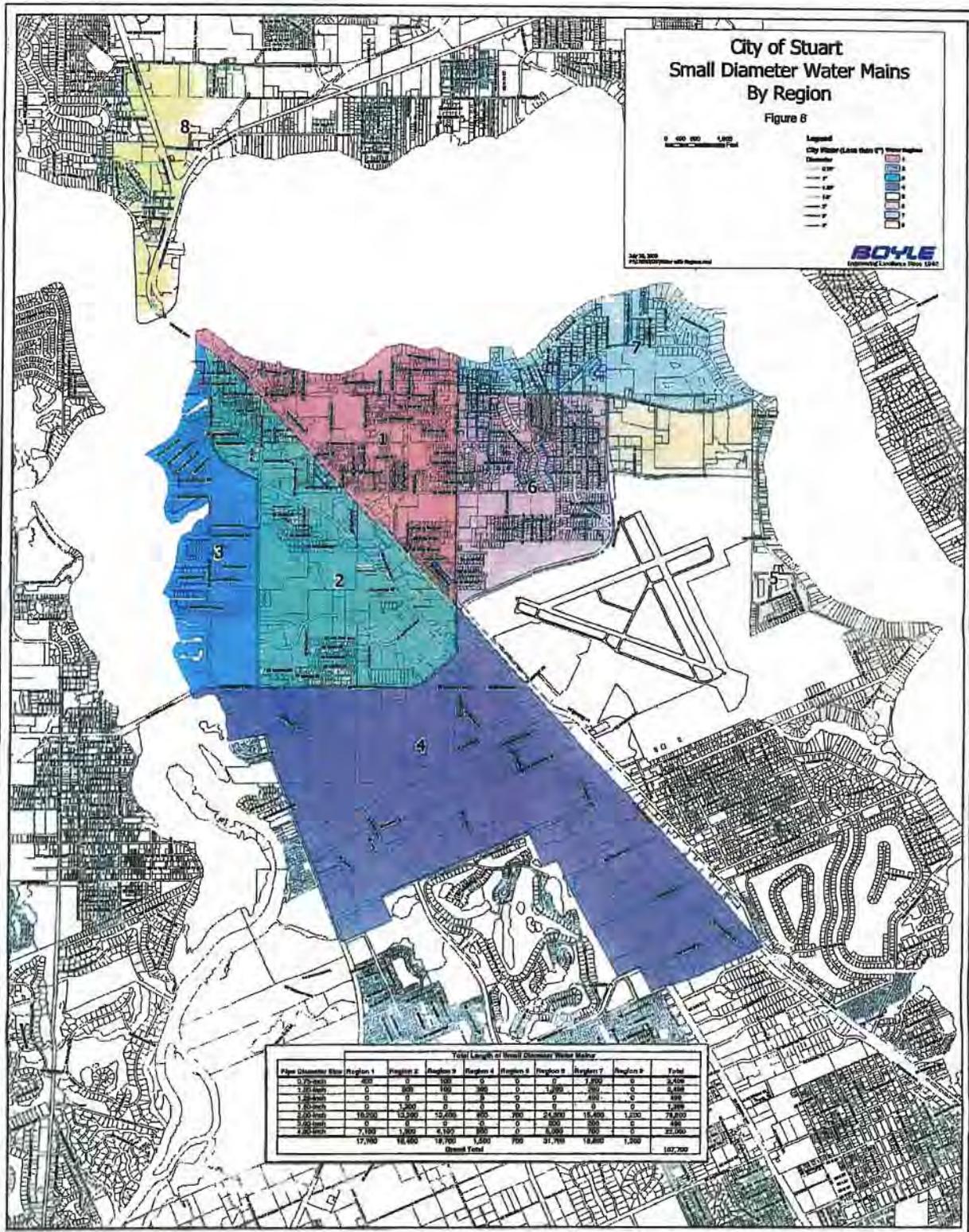
Acknowledgement is hereby made of Addendum #1 to REI #2012-119, Professional Engineering Services:


Signature

October 9, 2012
Date

Holtz Consulting Engineers, Inc.
Firm

Christine.Miranda@holtzconsulting.com
email address



City of Stuart Small Diameter Water Mains By Region

Figure 8

0 400 800 1,600
Feet

- Legend
City Water (Less than 6") Interceptors
- 12"
 - 14"
 - 16"
 - 18"
 - 20"
 - 24"
 - 30"

July 26, 2005
P.L. 050007/08 with Revisions

BOYLE
Engineering & Construction Since 1942

Total Length of Small Diameter Water Mains

Pipe Diameter Size	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Total
12-inch	450	0	180	0	0	0	2,800	0	3,430
14-inch	0	800	100	300	0	1,400	200	0	3,300
16-inch	0	0	0	0	0	0	0	0	0
18-inch	0	0	0	0	0	0	0	0	0
20-inch	10,200	12,200	12,200	800	700	24,200	14,400	1,200	75,700
24-inch	0	0	0	0	0	0	0	0	0
30-inch	7,100	1,200	4,100	800	0	8,000	300	0	21,500
Total	17,750	14,200	16,480	1,100	700	32,700	14,900	1,200	107,730