



REQUEST FOR QUALIFICATIONS NO. 12-005
GENERAL ENGINEERING SERVICES



August 1, 2012

CHEN•MOORE

&ASSOCIATES



August 1, 2012

City Clerk
City of Key West
3126 Flagler Ave
Key West, FL 33040

Subject: RFQ No. 12-005: General Engineering Services

Dear City Clerk and Members of the Selection Committee:

Chen Moore and Associates (CMA), in association with Coastal Tech, BCC Engineering, United Engineering, Sandra Walters Consultants, Inc. (SWC), Trepanier & Associates, Inc., Nutting Engineers of Florida, Inc., and Aviom & Associates, Inc., is pleased to submit our Response to the Request for Qualifications.

Chen Moore and Associates (CMA) is a multi-discipline engineering firm founded in 1986 with five offices in Florida. The Chen Moore team brings over 25 years of municipal and governmental civil engineering experience in the South Florida and Florida Keys area, including projects for the City of Key West. We believe it is critical that the consultant for these services has experience working in Monroe County. The team must also be capable of responding to your needs in a timely manner and have the resources to accomplish tasks competently. The Chen Moore Team is that consultant.

Chen Moore and Associates has been involved in the planning, design, permitting, contract administration and construction engineering inspection and administration for a variety of projects including: rehabilitation of sanitary sewer systems; phase I & II environmental assessments; infrastructure inventory; marina improvements; sustainable design and LEED solutions; value engineering studies; wastewater collection systems design; GIS mapping; stormwater and sanitary sewer modeling; and infiltration/inflow analysis.

CMA, along with our subconsultants, have provided civil, utility, coastal, solid waste, and environmental engineering services for several relevant projects including:

- Florida Keys Aqueduct Authority – Wastewater Collection and Conveyance Systems, and Sanitary Sewer Modeling
- City of Marathon – GIS Mapping & Stormwater MS4 Permit Compliance
- Village of Islamorada – General Environmental Engineering
- City of Miami Beach – Roadway and Water and Wastewater Distribution Systems
- City of Fort Lauderdale – Marina Improvements
- Broward County Water and Wastewater – Roadway and Water and Wastewater Collection, Distribution and Conveyance
- City of North Miami Beach – Sewer System Modeling and GIS Mapping
- City of Pompano Beach – Master Pump Stations Design and Rehabilitations
- Brevard County – Central Disposal Facility South Slope Closure, Landfill Gas Expansion & Stormwater Improvements
- Cedar Key – Wastewater Treatment Plant & Biosolids Permitting
- FDEP – System-wide Coastal Parks Management Plan
- Town of Palm Beach – Reach 7 Beach Renourishment, Restoration and Stabilization

CMA has continued a successful 7-year relationship with the City of Key West, having worked on projects through our General Engineering Services Agreement. Our staff and team of subconsultants have worked on projects such as the Navy Pedestrian Bridge at Truman Annex, the City's Solid Waste Transfer Station, numerous Structural Assessment Condition Studies, and the City's Public Transportation facility.

In the pages that follow, please find our qualifications for this contract. We are confident that our expertise, along with our past performance in the Keys, will allow us to continue our long and mutually beneficial relationship with the City of Key West.

Respectfully submitted,

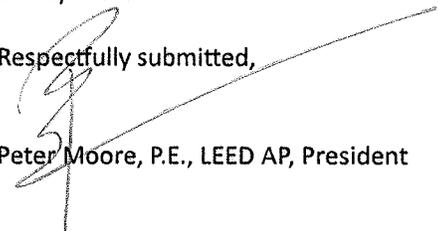

Peter Moore, P.E., LEED AP, President

Table of Contents

Section	Title	Page Number
1	Complete Company Profile <ul style="list-style-type: none"> ■ Professional Licenses 	1-1
2	Team Member Names and Qualifications <ul style="list-style-type: none"> ■ Resumes 	2-1
3	Key Personnel Expertise	3-1
4	Relevant Experience of the Firm <ul style="list-style-type: none"> ■ References 	4-1
5	Names, Job Classifications, Qualifications of Engineering Personnel.....	5-1
6	Proposed Management Approach	6-1
7	Forms.....	7-1

Evaluation Criteria	Page Number
Specialized experience and technical competence of the firm in the listed disciplines.	1-1
Professional qualifications of staff personnel/Capacity of assigned and identified staff to accomplish work.	2-1
Past Work Experience	4-1
Location and availability of technical support people and assigned project manager to the CITY	1-2
Ability to perform the services expeditiously at the request of the CITY.	6-8
Other certifications including LEED and LAP	1-6

1. Complete Company Profile

Chen Moore and Associates (CMA) is a multi-discipline consulting firm that is a Florida State MBE certified and locally certified CBE firm located in Miami, Fort Lauderdale, West Palm Beach, Stuart and Gainesville, Florida. Founded in 1986, the firm has grown to a staff of 32 full-time personnel. CMA has successfully completed a wide range of projects involving planning, design and construction of projects in a multitude of disciplines including:

- Wastewater Collection, Transmission, Treatment and Disposal
- Water Supply, Treatment, and Distribution Design
- Stormwater Management System Design and Master Plans
- Environmental Engineering
- Roadway Design and Streetscape
- Infrastructure Master Planning
- Sustainable Design and LEED Solutions
- Government Permitting
- Site Planning
- Landscape Architecture
- Hardscape Design
- Irrigation Design
- Parks Design
- GIS Analysis and Mapping
- Project and Program Management
- Value Engineering
- Utility Rate and Infrastructure Valuation Studies
- Resident Coordination and Stakeholder Meetings
- Grant and Loan Services
- Bidding and Construction Administration Services

Our staff includes 14 licensed professional engineers, seven LEED Accredited Professionals and two licensed landscape architects. The firm is celebrating its 25th anniversary in business serving South Florida and our Miami Office is celebrating its 14th anniversary in Miami-Dade County.

LEED Experience

Chen Moore and Associates believes in creating sustainable communities. As such, Chen Moore and Associates has been involved in over \$350 million of redevelopment projects since 1992, including BODRs, design, permitting and construction services including improvements/rehabilitation projects and coordination with historical districts. Chen Moore and Associates was the program manager for the Coral Springs Public Safety Complex, which includes Fire Station 80, which was the first LEED Gold certified Fire Station in South Florida.

Oscar Bello, P.E., one of our proposed professional engineers for this submittal, is currently working on a solar lighting program for the City of Dania Beach. In an effort to eliminate dependency on the local electric utility, the City hired Chen Moore and Associates to design one of the largest municipal projects involving solar lighting. Since 2007, the City's program has installed over 300 solar powered street lights. The system is designed to withstand 150mph wind loads.



Michael Buick, P.E., who is also a proposed project engineer for this submittal, recently completed the design of a new transportation facility on the site of the old Southernmost Waste to Energy Facility. The new facility will serve as the transportation operations and administration building for the City. The project is on track to become LEED Silver certified.

Chen Moore and Associates was the program manager for the first LEED Gold certified Fire Station in South Florida.

Unique Qualifications

Chen Moore and Associates has been providing professional services in the Florida Keys since 2001. We have held a General Engineering Services Contract with the City of Key West since 2007 and during that time have proven ourselves to be a knowledgeable and responsive consultant. **Our staff and team of subconsultants have worked on projects such as the Pedestrian Bridge at Truman Annex, the City's Solid Waste Transfer Station, and the City's Public Transportation facilities among others for the City's redevelopment agency.**

The CMA Advantage

- CMA works with over 30 municipalities in Miami-Dade, Broward and Monroe Counties. This allows CMA to truly be the City of Key West's consultant and advisor for civil, utility, coastal, and solid waste engineering projects.
- Our track record and strategy to communicate with residents during construction, with City staff or through public meetings is a significant advantage. Even the best design needs to be communicated properly. Empowering the community through the process makes a difference.

Availability

Chen Moore and Associates makes the commitment that all key personnel on the project team will continue to meet the needs of the City of Key West. All Chen Moore and Associates project managers and staff realize that on-time delivery is a key element in meeting our commitments to clients. Because of our resources and qualified personnel, Chen Moore and Associates is able to overcome any unforeseen delays by assigning additional staff.

All of Chen Moore and Associates proposed staff and resources are immediately available to start work on one or more of the engineering disciplines identified in your Request for Qualifications. As mentioned earlier, Chen Moore and Associates offers the City a large staff, with varying skills and capabilities, all of whom have worked together on numerous projects.

Office Location

Chen Moore and Associates has its corporate headquarters in Fort Lauderdale, with additional branch offices in Miami; West Palm Beach; Stuart; and Gainesville. Our office address for this project is:

1444 Biscayne Boulevard, Suite 204
Miami, FL 33132
Telephone: (786) 497-1500
Fax: (786) 497-2300

Our central locale enables on-staff professionals to develop innovative, yet practical designs based on special insights into the problems and requirements of the communities of which they are a part.



Subconsultants

Coastal Technology Corporation (CTC) was founded in November 1984 as a Florida corporation and has been continuously engaged since that time in providing Coastal Engineering services including planning and design, coastal geology services, environmental assessments, permitting services, and construction administration services. Since their inception, Coastal Tech has provided professional services to successfully plan and design coastal projects including assisting clients in obtaining local, State and federal support and funding. CTC will provide coastal engineering services.



In 2007, Coastal Tech was retained by Florida Department of Environmental Protection (FDEP) Division of Recreation and Parks to develop a System-wide Coastal Parks Management Plan to document background conditions and issues associated with the unique coastal settings of these specific parks and to identify and summarize policy and management responses and erosion control or similar construction projects which are appropriate to mitigate the negative effects of erosion and storm vulnerability. Among the 41 coastal parks in the state that they reviewed, were Long Key State Park, Curry Hammock State Park, Bahia Honda State Park and Ft. Zachary Taylor State Park in the Florida Keys.

BCC Engineering, Inc. was established in Miami-Dade County as a consulting engineering firm in 1994. Since that time, the firm has diligently worked to meet the needs of our private and public sector clients. BCC Engineering specializes in providing planning, design, and construction management services, provides a broad range of services including civil, water and sewer infrastructure, structural, transportation design, construction engineering and inspection (CEI) services, drainage and environmental permitting, signalization design, lighting design and traffic engineering services.



BCC Engineering has been working with the City of Miami, City of Miami Beach, City of Doral, the Florida Department of Transportation District 6, and other agencies under on-going General Engineering Services and District-wide Contracts for the last 15 years and continue to successfully work with clients through a variety of assignments from small milling and resurfacing projects, large reconstruction projects, coordinating LAP agreements with municipalities, and diverse transportation tasks. Similarly, they been working with the FDOT on at least four District-wide contracts as prime consultants and have participated on various others as sub-consultants. BCC will provide LAP coordination.

Trepanier and Associates, Inc. is a land use planning and development consulting firm based in the Florida Keys. Their experience includes urban, regional & rural planning, community and economic development and project management. Their area of expertise includes Comprehensive Planning, Condominium Conversions, Development Plans, Development Potential Analyses, Downtown Revitalization, Easements, Property Re-Zoning & Re-FLUM Strategic Planning, Transient Transfers, Tree Commission and Vacations of Rights-of-Way.



UNITED Engineering, Inc. provides structural design services that include New Construction, Expert Witness, Peer Review, Value Engineering, Forensic Investigation, Rehabilitation/Repair, and Construction Observation. They provide these services across several market sectors that include governmental, commercial, institutional, mixed-use, residential, healthcare, specialty structures, and sports facilities. They also have experience with several delivery methods of construction such design-build, GMP, CM at risk, and traditional design-bid-build.



Nutting Engineers of Florida, Inc. will provide geotechnical engineering services. They provide a wide variety of engineering and materials testing services including threshold inspections. Geotechnical engineering services include investigations, analysis, and recommendations for site feasibility, foundations, embankments, pavements, retention structures, and other earthworks projects.



Sandra Walters Consultants, Inc. (SWC) will provide ecological and environmental services. They provide services in all areas of ecological and environmental consulting and land use and public facilities planning and permitting, including habitat assessments, wetland permitting and mitigation design,



environmental impact statements, compliance monitoring, development agreements, and submerged land leases. SWC has extensive experience working with regulatory agencies to develop project designs that minimize impacts and meet permitting requirements, and to bring clients into compliance with regulatory standards. The firm has conducted data collection and analysis, and written environmental and planning sections of NEPA documents for FDOT, the FAA, the South Florida Water Management District, and U.S. Army Corps of Engineers. SWC also provides environmental compliance monitoring services during construction.

Avirom & Associates, Inc., will provide surveying and mapping services. Founded in 1981 by Michael



D. Avirom, P.L.S., Avirom is a company dedicated solely to the land surveying profession. Their services include aerial and conventional topographic mapping; establishing NGVD benchmarks; GPS controls; and utility locations and inverts. Avirom worked with Florida Keys Aqueduct Authority on a project in Lower Sugarloaf, Upper Sugarloaf, Cudjoe, Summerland, Ramrod, Little Torch, Big Pine and No Name Keys. The project involved the mapping of more than 16 miles of the Florida Keys for the engineering design of new sewer and water systems, and included calculated plats and right-of-ways for development of the base map.

State of Florida Professional Licenses for Chen Moore and Associates

State of Florida
 Board of Professional Engineers
Chen And Associates Consulting Engineers, Inc.



Is authorized under the provisions of Section 471.003, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.

Certificate of Authorization

EXPIRATION: 2/28/2013 CA. Lic. No: 4593
 AUDIT No: 228201301003 D

State of Florida
 Board of Professional Engineers
 Attests that
Ben Hseuh Hai Chen, P.E.



IS LICENSED AS A PROFESSIONAL ENGINEER UNDER CHAPTER 471, FLORIDA STATUTES
 EXPIRATION: 2/28/2013 P.E. Lic. No: 31849
 AUDIT No: 228201306960

State of Florida
 Board of Professional Engineers
 Attests that
Jose Luis Acosta, P.E.



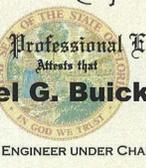
IS LICENSED AS A PROFESSIONAL ENGINEER UNDER CHAPTER 471, FLORIDA STATUTES
 EXPIRATION: 2/28/2013 P.E. Lic. No: 63827
 AUDIT No: 228201303522

State of Florida
 Board of Professional Engineers
 Attests that
Oscar R. Bello, P.E.



IS LICENSED AS A PROFESSIONAL ENGINEER UNDER CHAPTER 471, FLORIDA STATUTES
 EXPIRATION: 2/28/2013 P.E. Lic. No: 61612
 AUDIT No: 228201305700

State of Florida
 Board of Professional Engineers
 Attests that
Michael G. Buick, P.E.



IS LICENSED AS A PROFESSIONAL ENGINEER UNDER CHAPTER 471, FLORIDA STATUTES
 EXPIRATION: 2/28/2013 P.E. Lic. No: 65894
 AUDIT No: 228201312648

State of Florida
 Board of Professional Engineers
 Attests that
PETER JOHN DUENO, P.E.



IS LICENSED AS A PROFESSIONAL ENGINEER UNDER CHAPTER 471, FLORIDA STATUTES
 EXPIRATION: 2/28/2013 P.E. Lic. No: 73781
 AUDIT No: 228201332257 I

State of Florida
 Board of Professional Engineers
 Attests that
Safiya T. Brea, P.E.



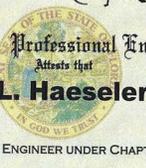
IS LICENSED AS A PROFESSIONAL ENGINEER UNDER CHAPTER 471, FLORIDA STATUTES
 EXPIRATION: 2/28/2013 P.E. Lic. No: 66388
 AUDIT No: 228201310847

State of Florida
 Board of Professional Engineers
 Attests that
Jason James McClair, P.E.



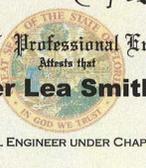
IS LICENSED AS A PROFESSIONAL ENGINEER UNDER CHAPTER 471, FLORIDA STATUTES
 EXPIRATION: 2/28/2013 P.E. Lic. No: 56962
 AUDIT No: 228201314717

State of Florida
 Board of Professional Engineers
 Attests that
Jason L. Haeseler, P.E.



IS LICENSED AS A PROFESSIONAL ENGINEER UNDER CHAPTER 471, FLORIDA STATUTES
 EXPIRATION: 2/28/2013 P.E. Lic. No: 71590
 AUDIT No: 228201321019

State of Florida
 Board of Professional Engineers
 Attests that
Jennifer Lea Smith, P.E.



IS LICENSED AS A PROFESSIONAL ENGINEER UNDER CHAPTER 471, FLORIDA STATUTES
 EXPIRATION: 2/28/2013 P.E. Lic. No: 72232
 AUDIT No: 228201313047 I

LEED Accredited Professionals

Chen Moore and Associates



Jason McClair



Safiya Brea



BCC Engineering



Peter Moore



Marcus Austin



United Engineering



Chen Moore and Associates FDOT CTQP Certified Staff

Marcus Austin, GC, LEED AP



Marlon John



2. Team Member Name and Qualifications

Please see the resumes on the following pages for the qualifications of the Chen Moore and Associates team and our subconsultants.



Ben H Chen, PhD, PE, BCEE
Chairman and Founder

Education

Bachelor of Science, Civil Engineering, National Taiwan University, 1967
Master of Science, Sanitary Engineering, National Taiwan University, 1969
Doctor of Philosophy, Civil Engineering, Virginia Polytechnic Institute and State University, 1973

Registration

Professional Engineer, Florida, 31849, 1982
Professional Engineer, Virginia, 008803, 1976

Certifications

Diplomate, American Academy of Environmental Engineers

Summary

Dr. Chen has over 44 years of civil and environmental engineering experience. His experience includes urban infrastructure renewal, water and wastewater treatment facilities design and construction management, facilities planning, environmental studies, utilities master planning, rate and financial studies. Dr. Chen served as assistant program manager of a design and construction program management team for Broward County North Regional WWTP expansion (\$82 million) and the world's largest Detroit Wastewater Treatment Plant with a five year construction program budget of \$1.0 billion.

Project Experience

Key West – Public Transportation Facility.

Chen Moore and Associates is the prime consultant responsible for the planning, design, permitting, design/build package preparation and overseeing construction for the City of Key West Department of Transportation Public Transportation Facility. The new facility serves as the transportation operations and administration building for the City of Key West and the primary terminal/transfer station for lower keys shuttle bus service, which serves Marathon to Key West. It provides parking for public transportation customers and employees as well as a plan for Phase II of the construction

on the remaining land at this site to incorporate tour bus parking and shuttle services into Key West from Stock Island, Florida.

Unique to this project is its proximity (immediately adjacent) to the City owned closed landfill and the project sites previous use as a solid waste to energy and solid waste transfer station operation. As a result of these elements, extensive coordination was necessary throughout the project to ensure closure of the adjacent landfill, appropriate demolition of existing onsite elements including lead based paint and asbestos testing, and testing to ensure proposed development would meet and/or exceed regulatory requirements. As part of the project, coordination was also necessary with the Federal Transit Administration to demonstrate compliance with National Environmental Policy Act requirements to secure project funding and with SFWMD to allow the development of the proposed project.

Key West Design/Build Transfer Station.

Chen Moore and Associates was the lead design consultant for the design/build project of the new Key West Solid Waste Transfer Station. The project consisted of development of approximately four acres of vacant land in Rockland Key, Monroe County. The transfer station included a transfer building with truck tunnels, a corrugated cardboard recycling building, office and maintenance building, scale house with truck scale platforms and inspection area, leachate storage tank, and retaining walls. The state-of-the-art transfer station replaces the aging Southernmost Waste to Energy facility on Stock Island, providing the capacity to handle the city's needs for at least the next 20 to 30 years.

The overall design of the Solid Waste Transfer Station in Key West required retaining walls along the proposed roadway/driveway. As such, design plans were prepared for a cast in place reinforced concrete to handle WB-67 truck loads.



FKAA Cudjoe Regional Wastewater Collection (Preliminary Design Report) Project.

Chen Moore and Associates was tasked with preparing the Preliminary Design Report (PDR) for the Cudjoe Regional Wastewater Collection System (Non-Central) Keys. The Non-Central Keys collection system includes: Lower Sugarloaf Key, Ramrod Key, Little Torch Key and Big Pine Key. CMA was responsible for designing the sanitary sewer collection system that will convey sewage from these keys to a transmission force main and/or master lift station located along US1/Overseas Highway.

Recognizing that the economic health of Monroe County and its municipalities relies largely on the environmental health of a unique marine ecosystem, the County's Year 2010 Comprehensive Plan mandated that nutrient loading levels be reduced in the marine ecosystem of the Florida Keys. In June of 2000, the Sanitary Wastewater Master Plan (Master Plan) was finalized with the goal of eliminating approximately 23,000 private on-site wastewater systems by July 2010. Through interlocal agreement, Monroe County has requested that the Florida Keys Aqueduct Authority (FKAA) design, build, and operate County-owned infrastructure on behalf of the citizens in the master-plan prescribed service areas.

The final design will be a conveyance system that will combine various wastewater collection system technologies in order to connect as many on-site wastewater systems as possible for the lowest overall cost. The combined strategic utilization of proper planning and technology, extending to the greatest number of connections for the best value, is an approach developed by the FKAA through its years of experience in the water and wastewater utility business.

City of Marathon MS4 Permit & Stormwater Utility Fee. Chen Moore and Associates contracted with City of Marathon for the preparation of a Stormwater Utility Fee and Ordinance Roadway/Drainage Inventory Map,

and MS4 Notice of Intent. Dr. Chen was responsible for the Stormwater Utility Fee of the project. The process included a large GIS component. The impervious area of a sample set of residential parcels was digitized using aerial interpretation in GIS. An Equivalent Residential Unit (ERU) analysis was completed by calculating the average impervious area per residential parcel. The impervious area for each non-residential lot was digitized and the number of ERUs was assigned. The total fee was established by analyzing the anticipated yearly public works program by the City. A weighted Stormwater Utility Fee was determined for each parcel based on ERUs. The list of parcels with fees was submitted to the tax authority. Dr. Chen then prepared the Stormwater Utility Ordinance for the City, including the fees for different types of land uses and assisted the City by explaining the processes and outcome to the City Commission at meetings. Chen Moore and Associates continues to do yearly re-assessments of the tax roll to account for changes in property ownership, new developments and appeals by residents.

City of Miami Beach City Center Right of Way and Utility Improvement Project. Chen Moore and Associates is the prime consultant and is responsible for providing surveying, planning, geotechnical investigation, design, permitting, preparation of construction documents, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the City Center neighborhood of Miami Beach. The project encompasses approximately 24,000 LF of ROW infrastructure improvements including: water main replacements; sewer improvements, stormwater drainage improvements; paving & grading; roadway/traffic improvements (streets, sidewalks, curb and gutter, drainage, traffic control devices including striping, signing and channelization); streetscaping and landscaping enhancements; decorative, landscape and roadway lighting improvements; and roadway reconstruction.



Oscar R. Bello, PE
Project Manager

Education

Bachelor of Science, Civil Engineering,
University of Central Florida, 1999

Registration

Professional Engineer, Florida, 61612, 2004

Summary

Mr. Bello has more than 13 years of experience in planning, design, permitting, and construction management of water, wastewater, and drainage municipal projects in Florida. Mr. Bello has worked as a project manager and project engineer for various projects in South and Central Florida. He currently manages municipal projects for the City of Miami Beach, City of Dania Beach, Florida Keys Aqueduct Authority and the City of Key West.

Project Experience

Key West – Public Transportation Facility.

Chen Moore and Associates is the prime consultant responsible for the planning, design, permitting, design/build package preparation and overseeing construction for the City of Key West Department of Transportation Public Transportation Facility. The new facility serves as the transportation operations and administration building for the City of Key West and the primary terminal/transfer station for lower keys shuttle bus service, which serves Marathon to Key West. It provides parking for public transportation customers and employees as well as a plan for Phase II of the construction on the remaining land at this site to incorporate tour bus parking and shuttle services into Key West from Stock Island, Florida.

Unique to this project is its proximity (immediately adjacent) to the City owned closed landfill and the project sites previous use as a solid waste to energy and solid waste transfer station operation. As a result of these elements, extensive coordination was necessary throughout the project to ensure closure of the adjacent landfill, appropriate demolition of existing onsite elements including lead based

paint and asbestos testing, and testing to ensure proposed development would meet and/or exceed regulatory requirements. As part of the project, coordination was also necessary with the Federal Transit Administration to demonstrate compliance with National Environmental Policy Act requirements to secure project funding and with SFWMD to allow the development of the proposed project.

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The overall design of the Solid Waste Transfer Station in Key West required retaining walls along the proposed roadway/driveway. As such, design plans were prepared for a cast in place reinforced concrete to handle WB-67 truck loads.

FCAA Cudjoe Regional Wastewater Collection (Preliminary Design Report)

Project. Chen Moore and Associates was tasked with preparing the Preliminary Design Report (PDR) for the Cudjoe Regional Wastewater Collection System (Non-Central) Keys. The Non-Central Keys collection system includes: Lower Sugarloaf Key, Ramrod Key, Little Torch Key and Big Pine Key. CMA was responsible for designing the sanitary sewer collection system that will convey sewage from these keys to a transmission force main and/or



master lift station located along US1/Overseas Highway.

Recognizing that the economic health of Monroe County and its municipalities relies largely on the environmental health of a unique marine ecosystem, the County's Year 2010 Comprehensive Plan mandated that nutrient loading levels be reduced in the marine ecosystem of the Florida Keys. In June of 2000, the Sanitary Wastewater Master Plan (Master Plan) was finalized with the goal of eliminating approximately 23,000 private on-site wastewater systems by July 2010. Through interlocal agreement, Monroe County has requested that the Florida Keys Aqueduct Authority (FKAA) design, build, and operate County-owned infrastructure on behalf of the citizens in the master-plan prescribed service areas.

The final design will be a conveyance system that will combine various wastewater collection system technologies in order to connect as many on-site wastewater systems as possible for the lowest overall cost. The combined strategic utilization of proper planning and technology, extending to the greatest number of connections for the best value, is an approach developed by the FKAA through its years of experience in the water and wastewater utility business.

Navy Pedestrian Bridge at Key West's Truman Annex. Chen Moore and Associates provided engineering services during design and construction of the navy pedestrian bridge. These activities include technical assistance, shop drawings, submittal review, field observation, and meeting attendance. The purpose of the bridge is to provide Navy personnel access over the proposed road to Fort Zachary Taylor.

The bridge was placed in April 2010 after an eight month hiatus due to railroad artifacts discovered during the excavation of the piers. This pedestrian bridge will ultimately serve as the future gateway to Ft. Zachary State Park in Key West. Chen Moore and Associates provided

third party engineering design review and construction engineering observation services.

Miami Beach Sunset Islands 1 & 2. Chen Moore and Associates is the prime consultant responsible for planning, design, permitting, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the Sunset Islands I & II neighborhood of Miami Beach. The project encompasses \pm 11,000 LF of ROW infrastructure improvements including water main replacements, stormwater drainage improvements, paving & grading, traffic pavement marking and signing related enhancements and roadway reconstruction. Extensive coordination with adjacent residents and with environmental agencies was necessary due to the projects environmentally sensitive location and surrounding environmental resources.

As part of the project stormwater and drainage services, extensive analysis was conducted utilizing ICPR modeling and GIS to meet and/or exceed required stormwater Level of Service standards. The proposed stormwater design included the introduction of catch basins and stormwater piping to effectively collect and route the stormwater to 11 existing outfalls to Biscayne Bay. Due to the environmental sensitivity of Biscayne Bay design and implementation of water quality treatment measures was an important consideration and design factor of the system prior to outfall to the Bay which included utilizing exfiltration trench. Additionally, as the outfalls were existing a review and evaluation of the conditions of the outfalls was conducted and rehabilitation, upsizing and retrofitting the existing outfalls was a part of the final design. This project was closely coordinated with regulatory agencies at the outset of the project and throughout the design to ensure an expedient review and issuance of the permit.



Jose Luis Acosta, PE
Senior Engineer

Education

Masters of Business Administration, Master of Business Administration, Auburn University, 2003

Bachelor of Science, Civil Engineering, University of Miami, 1999

Bachelor of Science, Architectural Engineering, University of Miami, 1999

Registration

Professional Engineer, Florida, 63827, 2004

Natl. Council of Examiners for Eng. & Surveying, 41987

Summary

Mr. Acosta has 12 years of experience directing and performing the design of site civil engineering plans/tasks, including paving, drainage, water, wastewater, roadway, and signing and marking for several municipalities throughout Miami-Dade, Broward and Palm Beach Counties.

Project Experience

City of Miami Beach City Center Right of Way and Utility Improvement Project. Chen Moore and Associates is the prime consultant and is responsible for providing surveying, planning, geotechnical investigation, design, permitting, preparation of construction documents, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the City Center neighborhood of Miami Beach. The project encompasses approximately 24,000 LF of ROW infrastructure improvements including: water main replacements; sewer improvements, stormwater drainage improvements; paving & grading; roadway/traffic improvements (streets, sidewalks, curb and gutter, drainage, traffic control devices including striping, signing and channelization); streetscaping and landscaping enhancements; decorative, landscape and roadway lighting improvements; and roadway reconstruction. Additionally, due to existing listed contaminated sites within the proximity of

the right of way improvements, environmental coordination including contaminated sites analysis and consideration of the radius of influence was necessary for coordinating dewatering operations. Due to the existing mixed residential and commercial environment of this neighborhood, special design efforts were made to incorporate walkable community elements including meeting all ADA requirements, providing street furniture, providing bicycle paths, upgrading sidewalks, incorporating specialty treatments at crosswalks, landscaping improvements with specialized tree wells to provide a walkable surface and bulb outs to increase pedestrian friendliness and safety. This project also required extensive coordination with the public, adjacent CRAs, historic districts and various regulatory agencies.

As part of the proposed stormwater and drainage services, extensive analysis was conducted utilizing ICPR Modeling and GIS to meet and/or exceed required stormwater Level of Services standards. The proposed stormwater design included the introduction of catch basins and stormwater piping to effectively collect and route the stormwater to 16 drainage gravity wells with overflow outfall connections to Biscayne Bay. Due to the environmental sensitivity of Biscayne Bay design and implementation of water quality treatment measures was an important consideration and design factor of the system prior to outfall to the Bay and was closely coordinated with regulatory agencies during the permitting process.

This project is currently under construction with CMA staff supporting Miami Beach staff through construction administration services and on-site field observation through CMA staff RPR services.

City of Miami Beach South Pointe Phase III/IV/V - Right of Way Improvement Project. Chen Moore and Associates is the



prime consultant and is responsible for providing surveying, planning, geotechnical investigation, design, permitting, preparation of construction documents, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the South Pointe III/IV/V neighborhood of Miami Beach. The project encompasses approximately 19,000 LF of ROW infrastructure improvements including water main replacements, stormwater drainage improvements, paving & grading, streetscaping enhancements, landscaping improvements, lighting improvements, and roadway reconstruction. Additionally, due to existing listed contaminated sites within the proximity of the right of way improvements, environmental coordination including contaminated sites analysis and consideration of the radius of influence was necessary for coordinating dewatering operations. Due to the existing mixed residential and commercial environment of this neighborhood, special design efforts were made to incorporate walkable community elements including meeting all ADA requirements, providing street furniture, providing bicycle paths, upgrading sidewalks, incorporating specialty treatments at crosswalks, landscaping improvements with specialized tree wells to provide a walkable surface and bulb outs to increase pedestrian friendliness and safety. This project also required extensive coordination with the public, adjacent CRAs, historic districts and various regulatory agencies.

Town of Miami Lakes Lake Patricia Roadway & Drainage Improvements. Chen Moore and Associates is implementing drainage improvements identified on the most recent Town of Miami Lakes Stormwater Master Plan for approximately one square mile of an existing residential neighborhood near Lake Patricia in southern Miami Lakes near Ludlam Road. Services include utility coordination, schematic and final design phases, government permitting, bidding assistance, construction administration and statements of work completion. The final design included approximately 1,900 LF of exfiltration trench

and rehabilitation/upsizing of 6 existing outfalls. CMA is also assisting Miami Lakes with the acquisition of potential grant opportunities.

City of Miami Gardens Miami Gardens Drainage Improvements. Chen Moore and Associates designed the stormwater improvements for the residential area from NW 9th Avenue to NW 10th Place and from NW 191st Street to NW 193rd Street. The design had a total construction budget of over \$400,000 per a grant received by the City. CMA evaluated the existing site conditions to strategically design roadway, drainage and sidewalk improvements to meet the most critical needs of the City and maximize the value of their construction budget.

The design included strategic placement of exfiltration trench at key areas of the existing residential area, while looking for opportunities to interconnect portions of existing systems that has been working independently. Strategic areas were chosen to be regraded per the results of the drainage modeling. The design considered elements related to the pedestrian paths and parallel parking adjacent to Norland High School. The project scope included government permitting, bidding services and construction administration to support the efforts of City staff.

CMA has worked with the City on a number of additional projects under our continuing services contract providing similar roadway and stormwater engineering services as well other services. Example additional projects CMA has successfully completed for the City of Miami Gardens include:

- Miami Gardens GIS Stormwater Atlas
- NW 38 Court Drainage Improvements
- NW 38 Ave to NW 38 Place (NW 208 Street to NW 209 Street) Drainage Improvements
- NW 19th Ave To NW 21st Ave: from NW 191 Tr To NW 26th St Drainage Improvements
- Le Jeune Bridge Design Build Criteria Package



Michael G Buick, PE
Senior Engineer

Education

Bachelor of Science, Biosystems Engineering,
University of Manitoba, 2000

Registration

Professional Engineer, Florida, 65894, 2007

Summary

Mr. Buick is a senior engineer in our Miami office and has over eight years of experience in site development. His experience includes planning, design and permitting of site infrastructure including site paving, grading and drainage and site utility plans for land development projects.

Mr. Buick is responsible for designing stormwater management systems (paving, grading and drainage) and water and sewer connections for residential and utility site development projects including design calculations, running flood routing models, drafting design drawings with AutoCAD, coordinating design with other involved disciplines, calculating opinion of probable costs, and writing Basis of Design Reports. Mr. Buick has coordinated site development projects with numerous permit agencies throughout South Florida including, FDEP, SFWMD, US ACOE, and various County and City agencies. Mr. Buick also has extensive experience working on projects in environmentally sensitive areas including wetlands and coastal areas.

Project Experience

Key West – Public Transportation

Facility. Chen Moore and Associates is the prime consultant responsible for the planning, design, permitting, design/build package preparation and overseeing construction for the City of Key West Department of Transportation Public Transportation Facility. The new facility serves as the transportation operations and administration building for the City of Key West and the primary

terminal/transfer station for lower keys shuttle bus service, which serves Marathon to Key West. It provides parking for public transportation customers and employees as well as a plan for Phase II of the construction on the remaining land at this site to incorporate tour bus parking and shuttle services into Key West from Stock Island, Florida.

Unique to this project is its proximity (immediately adjacent) to the City owned closed landfill and the project sites previous use as a solid waste to energy and solid waste transfer station operation. As a result of these elements, extensive coordination was necessary throughout the project to ensure closure of the adjacent landfill, appropriate demolition of existing onsite elements including lead based paint and asbestos testing, and testing to ensure proposed development would meet and/or exceed regulatory requirements. As part of the project, coordination was also necessary with the Federal Transit Administration to demonstrate compliance with National Environmental Policy Act requirements to secure project funding and with SFWMD to allow the development of the proposed project.

Key West Design/Build Transfer Station.

Chen Moore and Associates was the lead design consultant for the design/build project of the new Key West Solid Waste Transfer Station. The project consisted of development of approximately four acres of vacant land in Rockland Key, Monroe County. The transfer station included a transfer building with truck tunnels, a corrugated cardboard recycling building, office and maintenance building, scale house with truck scale platforms and inspection area, leachate storage tank, and retaining walls. The state-of-the-art transfer station replaces the aging Southernmost Waste to Energy facility on Stock Island,



providing the capacity to handle the city's needs for at least the next 20 to 30 years.

FCAA Cudjoe Regional Wastewater Collection (Preliminary Design Report) Project. Chen Moore and Associates was tasked with preparing the Preliminary Design Report (PDR) for the Cudjoe Regional Wastewater Collection System (Non-Central) Keys. The Non-Central Keys collection system includes: Lower Sugarloaf Key, Ramrod Key, Little Torch Key and Big Pine Key. CMA was responsible for designing the sanitary sewer collection system that will convey sewage from these keys to a transmission force main and/or master lift station located along US1/Overseas Highway.

Recognizing that the economic health of Monroe County and its municipalities relies largely on the environmental health of a unique marine ecosystem, the County's Year 2010 Comprehensive Plan mandated that nutrient loading levels be reduced in the marine ecosystem of the Florida Keys. In June of 2000, the Sanitary Wastewater Master Plan (Master Plan) was finalized with the goal of eliminating approximately 23,000 private on-site wastewater systems by July 2010. Through interlocal agreement, Monroe County has requested that the Florida Keys Aqueduct Authority (FCAA) design, build, and operate County-owned infrastructure on behalf of the citizens in the master-plan prescribed service areas.

The final design will be a conveyance system that will combine various wastewater collection system technologies in order to connect as many on-site wastewater systems as possible for the lowest overall cost. The combined strategic utilization of proper planning and technology, extending to the greatest number of connections for the best value, is an approach developed by the FCAA through its years of experience in the water

and wastewater utility business.

Navy Pedestrian Bridge at Key West's Truman Annex. Chen Moore and Associates provided engineering services during design and construction of the navy pedestrian bridge. These activities include technical assistance, shop drawings, submittal review, field observation, and meeting attendance. The purpose of the bridge is to provide Navy personnel access over the proposed road to Fort Zachary Taylor.

The bridge was placed in April 2010 after an eight month hiatus due to railroad artifacts discovered during the excavation of the piers. This pedestrian bridge will ultimately serve as the future gateway to Ft. Zachary State Park in Key West. Chen Moore and Associates provided third party engineering design review and construction engineering observation services.

City of Miami Beach City Center Right of Way and Utility Improvement Project.

Chen Moore and Associates is the prime consultant providing planning, design, permitting, preparation of construction documents, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the City Center neighborhood of Miami Beach. The project encompasses approximately 24,000 LF of ROW infrastructure improvements including: water main replacements; sewer improvements, stormwater drainage improvements; paving & grading; roadway/traffic improvements (streets, sidewalks, curb and gutter, drainage, traffic control devices including striping, signing and channelization); streetscaping and landscaping enhancements; decorative, landscape and roadway lighting improvements; and roadway reconstruction.



Safiya T Brea, PE, LEED AP
Senior Engineer

Education

Bachelor of Science, Civil Engineering,
University of Florida, 2002

Registration

Professional Engineer, Florida, 66388, 2007

Summary

Ms. Brea's experience includes neighborhood improvement projects which consist of roadway and sidewalk design, drainage design, water design and sewer design. She has also worked on projects ranging from a couple thousand dollars to multi-million dollar projects. She has designed and managed multiple types of projects including streetscape improvements, roundabout designs, stormwater design and master plans, booster station basis of design reports and many others. Her current duties include project management, GIS and Autocad Design work, Cascade modeling, sewer modeling and design, water main design, report preparation and plan preparation for several cities and Broward County projects.

Project Experience

City of Marathon MS4 Permit & Stormwater Utility Fee. Chen Moore and Associates contracted with City of Marathon for the preparation of: Stormwater Utility Fee and Ordinance Roadway/Drainage Inventory Map, and MS4 Notice of Intent. Chen Moore was responsible for the Stormwater Utility Fee, which included a large GIS component. The impervious area of a sample set of residential parcels was digitized using aerial interpretation in GIS. The total fee was established by analyzing the anticipated yearly public works program by the City. A weighted Stormwater Utility Fee was determined for each parcel based on ERUs. The list of parcels with fees was submitted to the tax authority. Chen Moore and Associates continues to do yearly re-

assessments of the tax roll to account for changes in property ownership, new developments and appeals by residents.

Chen Moore and Associates was also responsible for the contract administration and permitting required for the DEP MS4 Permit. Part of the effort required obtaining the locations of drainage structures. The team collected GPS coordinates of structures in the FDOT Right of Way from FDOT. These coordinates were collected by a contractor during the annual system cleaning program, which resulted in a low cost option for obtaining the necessary data.

Chen Moore and Associates also conducted a roadway inventory, responsible for all data collection, assessing asphalt conditions, mapping street signs and writing the roadway conditions report. During this part of the project, every street was visited to collect field data for the GIS. The pavement condition was assessed using a methodology similar to AASHTO Standards. This low cost method-ology used the latest technical developments of its time to produce the high quality report.

Lauderdale-By-The-Sea Stormwater Master Plan. Chen Moore and Associates completed the Stormwater Master Plan for the Town of Lauderdale-by-the-Sea. Like other coastal communities in South Florida, the Town of Lauderdale-By-The-Sea is fully developed with chiefly residential properties mixed with commercial properties. The project area includes approximately 640 acres of land which are separated into 1,618 properties, which encompasses approximately 1.5 square miles of land area. The Town of Lauderdale-By-The-Sea maintains its own stormwater facilities. Existing drainage facilities within the Town include catch basins connected by pipe of various materials and



sizes to either exfiltration trench or positive outfalls into the Intracoastal Waterway and canals. Private drainage systems also discharge into the Intracoastal Waterway and canals. Unpaved swales are found within right-of-way areas for additional stormwater storage.

City Center Right of Way and Utility Improvement Project. Chen Moore and Associates is the prime consultant and is responsible for providing surveying, planning, geotechnical investigation, design, permitting, preparation of construction documents, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the City Center neighborhood of Miami Beach. The project encompasses approximately 24,000 LF of ROW infrastructure improvements including: water main replacements; sewer improvements, stormwater drainage improvements; paving & grading; roadway/traffic improvements (streets, sidewalks, curb and gutter, drainage, traffic control devices including striping, signing and channelization); streetscaping and landscaping enhancements; decorative, landscape and roadway lighting improvements; and roadway reconstruction. Additionally, due to existing listed contaminated sites within the proximity of the right of way improvements, environmental coordination including contaminated sites analysis and consideration of the radius of influence was necessary for coordinating dewatering operations. Due to the existing mixed residential and commercial environment of this neighborhood, special design efforts were made to incorporate walkable community elements including meeting all ADA requirements, providing street furniture, providing bicycle paths, upgrading sidewalks, incorporating specialty

treatments at crosswalks, landscaping improvements with specialized tree wells to provide a walkable surface and bulb outs to increase pedestrian friendliness and safety. This project also required extensive coordination with the public, adjacent CRAs, historic districts and various regulatory agencies.

This project is currently under construction with CMA staff supporting Miami Beach staff through construction administration services and on-site field observation through CMA staff RPR services.

City of Pompano Beach Lift Station 21. Chen Moore and Associates was responsible for the design, permitting and construction administration for the relocation of the existing LS 21 (master pump station) serving a majority of the City's barrier island. After completing the Basis of Design Report, Chen Moore and Associates proposed a variety of options to handle the approximately 4,700 GPM existing flow and conducted follow-up odor studies for specific design purposes. The design options included in-line booster and submersible pumps with variable frequency drives and liquid and vapor phase treatments. Additional concerns included odor control, dewatering contamination and electrical supply and generation. The final design option (approved in Oct. 2007) was different from the recommended "hybrid" design in the BODR in that the design only involved a submersible lift station coupled with biological vapor phase odor control and strategic chemical liquid phase odor control (no in-line booster station involved). The project was bid in late 2010 and construction is planned for completion in July of 2012, with the new station being fully operational by April 2012 and demolition of the existing structure to follow.



Jason L Haeseler, PE
Senior Engineer

Education

Bachelor of Science, Civil Engineering,
University of Florida, 2006

Registration

Professional Engineer, Florida, 71590, 2010

Certifications

Qualified Stormwater Management Inspector

Summary

Mr. Haeseler has over seven years of experience in construction engineering and inspection and construction administration. Mr. Haeseler has served as project engineer and / or project manager on projects including roadway improvements including widening, resurfacing, and signalization, drainage improvements, low-pressure and gravity sewer systems, water distribution systems, landfill closures, and landfill gas collection systems. His projects have ranged in size from \$250,000 to \$47 million for clients including FDOT, city, and county governments.

Project Experience

Cedar Key Water Wastewater Treatment Plant & Biosolids Permitting. Chen Moore and Associates is providing professional engineering services to the Cedar Key Water & Sewer District to renew the operating permit for their 0.18 MGD extended aeration water reclamation facility, including an updated Capacity Analysis Report and Operation & Maintenance Performance Report. CMA is also providing professional engineering services to obtain a Biosolids Land Application Site permit on approximately 100 acres of timberland in Levy County under the State's new Biosolids rule on behalf of the District.

Brevard County Central Disposal Facility – South Slope Closure, Landfill Gas Expansion & Stormwater Improvements.

This project included a partial slope closure using approximately 14 acres of geosynthetic clay liner, over 75,000 cubic yards of earth and

waste fill on 3:1 slopes, improvements to the stormwater system that included piping up to 42 inches, and expansion of the existing landfill gas collection system including 44 vertical gas wells and over 4 miles of HDPE pipe up to 24" in diameter while keeping the existing system operational.

As the engineer's project manager Mr. Haeseler was directly responsible for the construction oversight and quality assurance. He reviewed all contractor submittals including schedules, pay applications, technical submittals, and materials testing reports. I conducted weekly on-site. He progress meetings with all stakeholders including the owner, contractor, subcontractors, and the landfill-gas-to-energy operator. This project represents Mr. Haeseler's experience prior to joining Chen Moore and Associates.

City of Miami Beach City Center Right of Way and Utility Improvement Project.

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mixed residential and commercial environment of this neighborhood, special design efforts were made to incorporate walkable community elements including meeting all ADA requirements, providing street furniture, providing bicycle paths, upgrading sidewalks, incorporating specialty treatments at crosswalks, landscaping improvements with specialized tree wells to provide a walkable surface and bulb outs to increase pedestrian friendliness and safety. This project also required extensive coordination with the public, adjacent CRAs, historic districts and various regulatory agencies.

This project is currently under construction with CMA staff supporting Miami Beach staff through construction administration services and on-site field observation through CMA staff RPR services.

City of Miami Beach South Pointe Phase III/IV/V - Right of Way Improvement Project. Chen Moore and Associates is the prime consultant and is responsible for providing surveying, planning, geotechnical investigation, design, permitting, preparation of construction documents, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the South Pointe III/IV/V neighborhood of Miami Beach. The project encompasses approximately 19,000 LF of ROW infrastructure improvements including water main replacements, stormwater drainage improvements, paving & grading, streetscaping enhancements, landscaping improvements, lighting improvements, and roadway reconstruction. Additionally, due to existing listed contaminated sites within the proximity of

the right of way improvements, environmental coordination including contaminated sites analysis and consideration of the radius of influence was necessary for coordinating dewatering operations. Due to the existing mixed residential and commercial environment of this neighborhood, special design efforts were made to incorporate walkable community elements including meeting all ADA requirements, providing street furniture, providing bicycle paths, upgrading sidewalks, incorporating specialty treatments at crosswalks, landscaping improvements with specialized tree wells to provide a walkable surface and bulb outs to increase pedestrian friendliness and safety. This project also required extensive coordination with the public, adjacent CRAs, historic districts and various regulatory agencies.

Broward County Broadview Park Neighborhood Improvement Project. The Broadview Park Neighborhood Improvement Project (BPNIP) was the last of the Neighborhood Infrastructure Improvements projects to be carried out by Broward County in the unincorporated areas. Chen Moore and Associates was selected as the prime consultant for the Basis of Design Report (BODR) and to design and administer the construction of improvements to subsequent bid packages. The three Bid Packages address water, sanitary sewer and drainage improvements, while introducing sidewalks and enhancing the community's roadway and landscape. Mr. Haeseler provided constructed administration and resident observation services.



Jason J McClair, PE, CFM, LEED AP
Branch Manager and Senior Engineer

Education

Bachelor of Science, Civil Engineering,
University of Florida, 1996

Registration

Professional Engineer, Florida, 56962, 2001

Certifications

Certified Floodplain Mapper

Summary

Mr. McClair is a senior civil engineer with experience in utility infrastructure design, regulatory permitting, geotechnical engineering, and computer aided flow modeling for stormwater collection, water distribution, and sanitary transmission systems. He is currently the project manager for the Fort Lauderdale-Hollywood International Airport Stormwater Master Plan Update and the Pompano Beach Stormwater Master Plan.

Project Experience

Key West Design/Build Transfer Station.

Chen Moore and Associates was the lead design consultant for the design/build project of the new Key West Solid Waste Transfer Station. The project consisted of development of approximately four acres of vacant land in Rockland Key, Monroe County. The transfer station included a transfer building with truck tunnels, a corrugated cardboard recycling building, office and maintenance building, scale house with truck scale platforms and inspection area, leachate storage tank, and retaining walls. The state-of-the-art transfer station replaces the aging Southernmost Waste to Energy facility on Stock Island, providing the capacity to handle the city's needs for at least the next 20 to 30 years. The overall design of the Solid Waste Transfer Station in Key West required retaining walls along the proposed roadway/driveway. As such, design plans were prepared for a cast in

place reinforced concrete to handle WB-67 truck loads.

City of Marathon MS4 Permit & Stormwater Utility Fee.

Chen Moore and Associates contracted with City of Marathon for the preparation of a Stormwater Utility Fee, Ordinance Roadway/Drainage Inventory Map, and MS4 Notice of Intent. Mr. McClair was the project manager responsible for the contract administration. He was also responsible for permitting efforts required for the DEP MS4 Permit. Part of the effort required obtaining the locations of drainage structures.

Fort Lauderdale SE 15th St Boat Launch & Marine Complex.

As part of its general civil engineering contract, Chen Moore and Associates was asked to design and permit upgrades to the parking lot located at 1784 SE 15th Street. The property covers approximately 29,000 SF and has two boat ramps, a marina and the police water unit building. The parking lot currently provides 58 parking spaces for vehicles with attached boat trailers only, one of the spaces being handicap accessible.

The scope of services includes removing the existing fixed docks and replacing them with new floating concrete docks for City use and proposing drainage and lighting upgrades to bring the lot up to City Code compliance. Chen Moore and Associates is responsible for the site layout, DRC and P&Z approvals, permitting as well as for coordinating with all other disciplines.

Hollywood Stormwater Master Plan.

Chen Moore and Associates was retained by the City of Hollywood to prepare a Stormwater Master Plan Update for the entire City limits. The City of Hollywood is fully developed with chiefly residential properties mixed with



commercial properties and also includes some agricultural, industrial, institutional and government-owned properties. The project area includes approximately 18,680 acres of land which are separated into 44,745 properties. The City of Hollywood operates and maintains its own stormwater facilities to provide flood control and water quality treatment within the City limits. Existing drainage facilities within the City include storm inlets, gravity pipes, pump stations, pressure mains, injection wells, outfalls and canals that connect to the Intracoastal Waterway.

The Stormwater Master Plan Update was intended to be a guide for improving the performance of the City's stormwater management system while meeting regulatory requirements for flood control, peak stages, peak discharge, and water quality of stormwater runoff. The City of Hollywood will use this Stormwater Master Plan Update to develop a preliminary schedule and budget for priority capital improvements to the stormwater management system.

Lauderdale-by-the-Sea Stormwater Master Plan. Chen Moore and Associates completed the Stormwater Master Plan for the Town of Lauderdale-by-the-Sea. This project included gathering all existing information available from previous permits, reports and studies and confirming their accuracy for use in the existing conditions model, updating the digital stormwater atlas in GIS, utilizing LIDAR data to create a surface model of the Town, collecting resident complaints and preparing the existing conditions model with Interconnected Pond Routing (ICPR) Software. After the existing conditions model was completed, Chen Moore and Associates identified areas with flooding issues and recommended stormwater improvements. A proposed conditions model was prepared with ICPR and the results was presented to the public and Town Commissioners.

Fort Lauderdale/Hollywood International Airport Stormwater Master Plan Update Phase 1 & 2. Under Phase 1 of this project,

BCAD retained Chen Moore and Associates (CMA) to update the FLL Stormwater Master Plan (SWMP), which was completed by a previous consultant in 2001. CMA reviewed the data and analysis from all prior reports, converted the existing stormwater model from SWMM to ICPR, and updated the ICPR model with any new system data and new projects provided by BCAD. CMA updated the existing conditions stormwater model and created the future conditions stormwater model to assess alternative drainage improvements needed to achieve required and desired Levels of Service (LOS) for various storm events. The stormwater model was used to run rainfall scenarios for the comparison of pre-development (existing) conditions versus post-development (future) conditions from a water quantity (runoff) and water quality (storage) perspective. The stormwater model was used to analyze the performance of the existing Primary Stormwater Management System (PSMS). The purpose of Phase 2 is to provide routine updates to the stormwater model(s) based on progress design drawings of the South Runway Expansion Project and the associated future development, including but not limited to, terminal and gate area improvements.

Fort Lauderdale South Beach Parking Lot Wall Replacement and ADA

Improvements. Chen Moore Associates was asked to provide the restoration and enhancement of the City-owned 6.5 acres "South Beach" parking lot, located along SR A1A, south of Las Olas Boulevard. The scope of work includes bringing the parking lot into ADA compliance per requirement of the consent decree, replacing a deteriorating low profile wall and sidewalk approximately 2100 feet in length, designing for easier vehicle and pedestrian ingress/egress, replacing existing lighting with turtle-compliant fixtures, and designing additional landscaping. Chen Moore and Associates is tasked to gain all necessary permit approvals to move forward with construction documents as well as coordinate with FP&L for the undergrounding of overhead wires.



Jennifer Lea Smith, PE
Senior Engineer

Education

Bachelor of Science, Civil Engineering, Florida Atlantic Engineering, 2006

Registration

Engineer In Training, Florida, 1100010887, 2006

Professional Engineer, Florida, 72232, 2011

Certifications

Stormwater Management Inspector

Summary

Ms. Smith is currently serving as a senior engineer with Chen Moore and Associates. Her three years of experience in the civil engineering field includes GIS and AutoCAD design work, detailed design work on the Broward County UAZ Water and Sewer Improvement Project, Stormwater Master Plan for the City of Dania Beach, Drainage Design for the City of Pompano Beach and the Design of GIS Utility Atlases. Current duties include water main, sanitary sewer and lift station design and permitting, drainage design and permitting as well as GIS modeling.

Project Experience

Cudjoe Regional Wastewater Collection (Preliminary Design Report) Project.

Chen Moore and Associates was tasked with preparing the Preliminary Design Report (PDR) for the Cudjoe Regional Wastewater Collection System (Non-Central) Keys. The Non-Central Keys collection system includes: Lower Sugarloaf Key, Ramrod Key, Little Torch Key and Big Pine Key. CMA was responsible for designing the sanitary sewer collection system that will convey sewage from these keys to a transmission force main and/or master lift station located along US1/Overseas Highway.

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largely on the environmental health of a unique marine ecosystem, the County's Year 2010 Comprehensive Plan mandated that nutrient loading levels be reduced in the marine ecosystem of the Florida Keys. In June of 2000, the Sanitary Wastewater Master Plan (Master Plan) was finalized with the goal of eliminating approximately 23,000 private on-site waste-water systems by July 2010. Through interlocal agreement, Monroe County has requested that the Florida Keys Aqueduct Authority (FKAA) design, build, and operate County-owned infrastructure on behalf of the citizens in the master-plan prescribed service areas.

The final design will be a conveyance system that will combine various wastewater collection system technologies in order to connect as many on-site wastewater systems as possible for the lowest overall cost. The combined strategic utilization of proper planning and technology, extending to the greatest number of connections for the best value, is an approach developed by the FKAA through its years of experience in the water and wastewater utility business.

Hollywood Stormwater Master Plan.

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The scope of services includes removing the existing fixed docks and replacing them with new floating concrete docks for City use and proposing drainage and lighting upgrades to bring the lot up to City Code compliance. Chen Moore and Associates is responsible for the site layout, DRC and P&Z approvals, permitting as well as for coordinating with all other disciplines.

Lauderdale-by-the-Sea Flamingo Avenue Stormwater Improvements. Chen Moore and Associates developed engineering drawings for stormwater improvements along Flamingo Avenue between North Ocean Drive and the beach area within the Town of Lauderdale By-The-Sea. The drainage improvements included the installation of new exfiltration trench which were interconnected with existing drainage structures. Since a portion of the project area is located seaward of the Coastal Construction Control Line (CCCL), Chen Moore and Associates was responsible for permitting the project through FDEP.



Peter J. Dueño, PE
Associate Engineer

Education

Bachelor of Science, Civil Engineering,
University of Florida, 2006

Registration

Professional Engineer, Florida, 73781, 2012

Summary

Mr. Dueño currently serves as a senior engineer with Chen Moore and Associates. He holds a Bachelor's Degree in Civil Engineering from the University of Florida. He is currently a project engineer on the City Center and South Pointe Right of Way Improvement Projects for the City of Miami Beach. He has also worked as a project engineer in neighborhood improvement projects for the Cities of Dania Beach, North Miami Beach, Key West, and Pinecrest, as well as Miami-Dade DERM. His experience includes planning, pavement marking and signage, streetscape, stormwater modeling and design, water main design, permitting, and cost estimating.

Project Experience

Key West - General Transportation Engineering Services. Chen Moore and Associates is the prime consultant responsible for the planning, design, permitting, design/build package preparation and overseeing construction for the City of Key West Department of Transportation Public Transportation Facility. The new facility serves as the transportation operations and administration building for the City of Key West and the primary terminal/transfer station for lower keys shuttle bus service, which serves Marathon to Key West. It provides parking for public transportation customers and employees as well as a plan for Phase II of the construction on the remaining land at this site to incorporate tour bus parking and shuttle services into Key West from Stock Island, Florida.

Unique to this project is its proximity (immediately adjacent) to the City owned closed landfill and the project sites previous use as a solid waste to energy and solid waste transfer station operation. As a result of these elements, extensive coordination was necessary throughout the project to ensure closure of the adjacent landfill, appropriate demolition of existing onsite elements including lead based paint and asbestos testing, and testing to ensure proposed development would meet and/or exceed regulatory requirements. As part of the project, coordination was also necessary with the Federal Transit Administration to demonstrate compliance with National Environmental Policy Act requirements to secure project funding and with SFWMD to allow the development of the proposed project.

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The overall design of the Solid Waste Transfer Station in Key West required retaining walls along the proposed roadway/driveway. As such, design plans were prepared for a cast in place reinforced concrete to handle WB-67 truck loads.



FKAA Cudjoe Regional Wastewater Collection (Preliminary Design Report) Project.

Chen Moore and Associates was tasked with preparing the Preliminary Design Report (PDR) for the Cudjoe Regional Wastewater Collection System (Non-Central) Keys. The Non-Central Keys collection system includes: Lower Sugarloaf Key, Ramrod Key, Little Torch Key and Big Pine Key. CMA was responsible for designing the sanitary sewer collection system that will convey sewage from these keys to a transmission force main and/or master lift station located along US1/Overseas Highway.

Recognizing that the economic health of Monroe County and its municipalities relies largely on the environmental health of a unique marine ecosystem, the County's Year 2010 Comprehensive Plan mandated that nutrient loading levels be reduced in the marine ecosystem of the Florida Keys. In June of 2000, the Sanitary Wastewater Master Plan (Master Plan) was finalized with the goal of eliminating approximately 23,000 private on-site wastewater systems by July 2010. Through interlocal agreement, Monroe County has requested that the Florida Keys Aqueduct Authority (FKAA) design, build, and operate County-owned infrastructure on behalf of the citizens in the master-plan prescribed service areas.

The final design will be a conveyance system that will combine various wastewater collection system technologies in order to connect as many on-site wastewater systems as possible for the lowest overall cost. The combined strategic utilization of proper planning and technology, extending to the greatest number of connections for the best value, is an approach developed by the FKAA through its years of experience in the water and wastewater utility business.

Navy Pedestrian Bridge at Key West's Truman Annex. Chen Moore and Associates provided engineering services during design and construction of the navy pedestrian bridge. These activities include technical assistance, shop drawings, submittal review, field

observation, and meeting attendance. The purpose of the bridge is to provide Navy personnel access over the proposed road to Fort Zachary Taylor.

The bridge was placed in April 2010 after an eight month hiatus due to railroad artifacts discovered during the excavation of the piers. This pedestrian bridge will ultimately serve as the future gateway to Ft. Zachary State Park in Key West. Chen Moore and Associates provided third party engineering design review and construction engineering observation services.

Miami Beach Sunset Islands 1 & 2. Chen Moore and Associates is the prime consultant responsible for planning, design, permitting, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the Sunset Islands I & II neighborhood of Miami Beach. The project encompasses \pm 11,000 LF of ROW infrastructure improvements including water main replacements, stormwater drainage improvements, paving & grading, traffic pavement marking and signing related enhancements and roadway reconstruction. Extensive coordination with adjacent residents and with environmental agencies was necessary due to the projects environmentally sensitive location and surrounding environmental resources.

As part of the project stormwater and drainage services, extensive analysis was conducted utilizing ICPR modeling and GIS to meet and/or exceed required stormwater Level of Service standards. The proposed stormwater design included the introduction of catch basins and stormwater piping to effectively collect and route the stormwater to 11 existing outfalls to Biscayne Bay. Due to the environmental sensitivity of Biscayne Bay design and implementation of water quality treatment measures was an important consideration and design factor of the system prior to outfall to the Bay which included utilizing exfiltration trench.



Marcus Thaddeus Austin, GC, LEED AP
Director of Construction Services

Education

Associate of Science, Civil / Architectural Engineering, Hudson Valley Community College, 1987

Registration

General Contractor's License, Florida, 1506546, 2003

Certifications

CTQP Asphalt Paving Technician Level 2
CTQP Earthwork Construction Inspection Level 2
MOT Workzone Traffic Control: Intermediate Level
Troxler Nuclear Density Gauge Operator
Troxler HAZMAT
Florida Water & Pollution Control Operators Association: Water Distribution System Operator Level 2

Summary

Mr. Austin is the Director of Construction Services for Chen Moore and Associates. He has over 20 years of experience in South Florida to CMA. He is currently involved in both vertical and horizontal projects, which have a total construction value of over \$42 million. These projects include the Broadview Park Neighborhood Improvement Projects and various civil engineering projects for municipalities like the City of Coral Springs, Pompano Beach and Ft. Lauderdale. Other building projects include Fire Station 80 for Coral Springs, which will be one of the first "Green" LEED certified buildings in south Florida. He obtained General Contractor's License in 2002, expanding the firm's construction management capabilities which now include project management for building construction projects and Design Builds for infrastructure systems.

Project Experience

Broward County Neighborhood

Improvement Project. The Broadview Park Neighborhood Improvement Project (BPNIP) was the last of the Neighborhood Infrastructure

Improvements projects to be carried out by Broward County in the unincorporated areas. Chen Moore and Associates was selected as the prime consultant for the Basis of Design Report (BODR) and to design and administer the construction of improvements to subsequent bid packages. The three Bid Packages address water, sanitary sewer and drainage improvements, while introducing sidewalks and enhancing the community's roadway and landscape.

The first two Bid Packages included replacing an entire existing water system, as it was formerly a private utility, and constructing three new lift stations, thousands of linear feet of gravity sewer, force mains, drainage improvements, roadway restoration and new sidewalks. The gravity sewer system was designed using a GIS capacity analysis tool that calculated and summarized the flow rates for each parcel in the service area. GIS was utilized during construction to track resident complaints, track the work that had been completed and estimate the Contractor's variance from the original schedule.

The third Bid Package addressed the sanitary sewer and drainage improvements, as well as improvements to the community's sidewalks, roadway and landscape.

South Beach Parking Lot Wall Replacement and ADA Improvements.

The purpose of this project was to provide the restoration and enhancement of the City-owned 6.5-acre "South Beach" parking lot, located along SR A1A, south of Las Olas Boulevard. The scope of work includes bringing the parking lot into ADA compliance per requirements of consent decree, replacing a deteriorating low profile wall and sidewalk approximately 2100 feet in length, replacing existing lighting with turtle-compliant fixtures, and designing additional landscaping. Chen Moore and Associates prepared the required DRC submittal, which included all



required public purpose approvals, as well as a conceptual layout of a new entrance at the southern end of the parking lot. This project was a joint effort between various City departments, including the City of Fort Lauderdale Beach Community Redevelopment Agency and Parking Services.

Fort Lauderdale SE 15th St Boat Launch & Marine Complex. As part of its general civil engineering contract, Chen Moore and Associates was asked to design and permit upgrades to the parking lot located at 1784 SE 15th Street. The property covers approximately 29,000 SF and has two boat ramps, a marina and the police water unit building. The parking lot currently provides 58 parking spaces for vehicles with attached boat trailers only, one of the spaces being handicap accessible.

The scope of services includes removing the existing fixed docks and replacing them with new floating concrete docks for City use and proposing drainage and lighting upgrades to bring the lot up to City Code compliance. Chen Moore and Associates is responsible for the site layout, DRC and P&Z approvals, permitting as well as for coordinating with all other disciplines.

Broward County UAZ 307/315 Utilities. Chen Moore and Associates provided design, bidding and construction administration for this project, which included replacing existing water main and providing sanitary sewer for County Service Areas in the City of Dania Beach, near Griffin Road and Ravenswood Road. The main technical components included replacing a 12-inch water main on Ravenswood Road, replacing the residential water distribution system, providing sanitary sewer to connect existing septic tanks and rehabilitating and installation of new lift stations and force main. A great deal of coordination was required to accommodate developer projects, tie into County projects, and obtain easements for crossing private properties. GIS was used to keep track of all ongoing projects and determine/update projected utility flow rates. A

total of 20,000 linear feet of water main replacement, three lift stations and 14,000 linear feet of sanitary sewer, which will tie in over 400 parcels, were designed for this project.

Pompano Beach Lift Station 21. Chen Moore and Associates was responsible for the design, permitting and construction administration for the relocation of the existing LS 21 (master pump station) serving a majority of the City's barrier island. The design options included in-line booster and submersible pumps with variable frequency drives and liquid and vapor phase treatments. Additional concerns included odor control, dewatering contamination and electrical supply and generation. During construction, CMA worked with FDOT and the contractor to address traffic concerns by designing and permitting a directional drill force main installation. The close coordination allowed a quick turnaround time to prevent construction delays.

Margate Boulevard Design and Construction. Chen Moore and Associates was contracted by the City of Margate CRA for design and construction engineering and inspection services for the Margate Boulevard Streetscape Improvement Project. The project replaced a 4-way stop intersection with a roundabout and included traffic analysis, roadway design, drainage design, specialized soil analysis, electrical design for specialized lights, landscaping, brick paver sidewalks and structural components of a large clock tower that was installed in the center of the roundabout.

During construction, the CRA also contracted Chen Moore and Associates to perform the design, permitting and construction administration for streetscape of a road adjacent to the project area. The survey, design and permitting were completed in less than 3 months to allow the CRA to retain the same contractor for the project construction.



Marlon D John
Engineering Inspector

Education

Master of Science, Construction Administration, Florida International University, 2009
Bachelor of Arts, Business Administration, Park University, 2002
Bachelor of Arts, Human Resources, Park University, 2002

Certifications

MOT Workzone Traffic Control: Intermediate Level
CTQP Asphalt Paving Technician Level 2
CTQP Earthwork Construction Inspection Level 2
CTQP Final Estimates Level 1
Troloxer Nuclear Density Gauge Operator
Troloxer HAZMAT

Summary

Mr. John has his Masters in Construction Management from Florida International University. As an Engineering Inspector for Chen Moore and Associates, he is responsible for testing and inspections on various types of projects including neighborhood improvement, water/wastewater and stormwater projects throughout Florida. He has been involved in projects which total over \$40 million in construction value. These projects include various projects for Miami Beach, Pinecrest, North Miami Beach and the Monterra Development as well as the Dania Beach Neighborhood Improvement Projects, Broadview Park Neighborhood Improvement Project, the St. George East and Broadview Park portions of the Central County Neighborhood Improvement project.

Project Experience

City Center Right of Way and Utility Improvement Project. Chen Moore and Associates is the prime consultant and is responsible for providing surveying, planning, geotechnical investigation, design, permitting, preparation of construction documents, bid and award and construction engineering and inspection services for infrastructure

improvements within the public right of way areas of the City Center neighborhood of Miami Beach. The project encompasses approximately 24,000 LF of ROW infrastructure improvements including: water main replacements; sewer improvements, stormwater drainage improvements; paving & grading; roadway/traffic improvements (streets, sidewalks, curb and gutter, drainage, traffic control devices including striping, signing and channelization); streetscaping and landscaping enhancements; decorative, landscape and roadway lighting improvements; and roadway reconstruction. Additionally, due to existing listed contaminated sites within the proximity of the right of way improvements, environmental coordination including contaminated sites analysis and consideration of the radius of influence was necessary for coordinating dewatering operations. Due to the existing mixed residential and commercial environment of this neighborhood, special design efforts were made to incorporate walkable community elements including meeting all ADA requirements, providing street furniture, providing bicycle paths, upgrading sidewalks, incorporating specialty treatments at crosswalks, landscaping improvements with specialized tree wells to provide a walkable surface and bulb outs to increase pedestrian friendliness and safety. This project also required extensive coordination with the public, adjacent CRAs, historic districts and various regulatory agencies.

As part of the proposed stormwater and drainage services, extensive analysis was conducted utilizing ICPR Modeling and GIS to meet and/or exceed required stormwater Level of Services standards. The proposed stormwater design included the introduction of catch basins and stormwater piping to effectively collect and route the stormwater to 16 drainage gravity wells with overflow outfall connections to Biscayne Bay. Due to the environmental sensitivity of Biscayne Bay design and implementation of water quality



treatment measures was an important consideration and design factor of the system prior to outfall to the Bay and was closely coordinated with regulatory agencies during the permitting process.

This project is currently under construction with CMA staff supporting Miami Beach staff through construction administration services and on-site field observation through CMA staff RPR services.

Hypoluxo Park Lane Sewer. Chen Moore and Associates designed, permitted, and provided construction administration and grant monitoring for the installation of gravity sewer, water main, roadway and drainage improvements for a residential community. Coordination was necessary with the City of Boynton Beach Utilities, Florida Department of Transportation, Palm Beach County Health Department, Town of Manalapan Utilities, South Florida Water Management District, the Town of Hypoluxo and its residents. Extensive negotiations were made between Boynton Beach Utilities and the Health Department to revise the minimum standards for pipe design with the purpose of eliminating the need for an additional lift station. Chen Moore and Associates also assisted the Town in obtaining easements from some of the residents for improvements, as the road was originally on

private property. CMA worked as a liaison between the contractor and Boynton Beach Utilities during construction to ensure all standards were met before the City took ownership of the system, including sewer lateral placement and methods for coring into existing manholes.

Dania Beach Neighborhood Improvement Project. Chen Moore and Associates was selected by the City of Dania Beach to provide professional engineering services for its Neighborhood Improvement Program. The general scope of services included the following:

- Street Lighting Layout and Design
- Sidewalk Layout and Design
- Traffic Calming Study and Design
- Bidding Services
- Construction Inspection
- Public Awareness

Pompano Beach NW 27th Avenue CEI. Chen Moore and Associates served as the construction administrators and public relations consultants for the NW 27th Avenue CEI project. The scope of work included the installation of an 8-inch sanitary force main and positive drainage system as well as upgrades to the two-lane collector roadway with new curb and gutter, sidewalks and landscaping enhancements.



MICHAEL P. WALTHER, P.E., D.CE.

President and Principal-In-Charge

As President and Principal in Charge of Coastal Tech, Michael coordinates project personnel, establishes schedules, monitors compliance with these schedules, conducts negotiations, ensures the technical quality of the work, and ensures that all work is completed on time and within budget.

Michael has a detailed understanding of coastal processes, state and federal policies and practices, and engineering design in conjunction with environmental permitting services provided by the firm. For single and multi-family oceanfront developments, Michael has provided: historical shoreline trend and wave load analyses, 30 year seasonal high water line projections; risk of damage assessments; and evaluations relative to impact of oceanfront construction upon beach/dune systems and adjacent properties. Michael is intricately familiar with legislation, laws, and policies of local, state, and federal regulatory agencies and their impact upon coastal development. Michael has represented developers, municipalities and private owners in civil court, before local and state regulatory staff, and before the Governor and Cabinet. Michael continues to provide coastal engineering guidance to developers, architects, and structural engineers during the siting and design phase of oceanfront developments.

Michael provides expert witness testimony in cases relative to coastal and marine construction. He is currently a Board member of the American Shore & Beach Preservation Association (ASBPA) and chairs their Partnering Committee. Michael also serves on the Policy Committee of the combined American Society of Civil Engineers (ASCE) and COPRI. Michael is currently a "Coastal Consultant" for Brevard, Indian River, St. Lucie and Volusia Counties, the Town of Palm Beach, the Florida Department of Environmental Protection, and the Texas General Land Office. Michael is a certified Diplomate in Coastal Engineering by ASCE's Academy of Coastal, Ocean, Port and Navigation Engineers and a registered professional engineer in Florida, Alabama, Louisiana, North Carolina and Texas.

EDUCATION

M.S. - Ocean Engineering, 1977
University of Texas at Austin

B.E.S. - Engineering Science, 1975
University of Texas at Austin

PROFESSIONAL EXPERIENCE

1984-Present: President
Coastal Tech

1978-1984: Coastal Engineer/Area Manager
Arthur V. Strock & Associates

1976-1977: Teaching Assistant
University of Texas At Austin
(Hydraulics Lab)

1974-1976: Research Assistant
University of Texas At Austin
(Coastal Zone Studies)

PROFESSIONAL AFFILIATIONS

2009 recipient of FSBPA's *Purpura-Chiu Engineering Excellence Award*
American Shore & Beach Preservation – Board
ASCE / COPRI - Policy Committee Member
Florida Engineering Society
Florida Institute of Consulting Engineers
Marine Resource Council
National Society of Professional Engineers

PROJECT EXPERIENCE

Ft. Zachary Taylor State Park Structures
Bahia Honda State Park Revetment
Town of Palm Beach Coastal Structures Assessment
Reach 7 Beach Renourishment, Restoration, Stabilization
Indian River County Sector 3 Beach Restoration
St. Lucie County South Beach Restoration
Brevard County Multipurpose Artificial Surf Reef
FDEP Geotextile Structure Assessment
Indian River County Beach Preservation Plan Update
Navarre Beach Restoration
Christenson's Landing Boat Ramps
Phipps Ocean Park Beach Restoration Design
Sebastian Inlet Management Plan
John's Pass Inlet Management Plan
St. Lucie Inlet Sand Transfer



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PUBLICATIONS & PRESENTATIONS

- Walther, M.P. and Woodruff, Paden E. “*Beach Management – Doing More with Less*”, FSBPA Annual Conference, 2011.
- Walther, M.P. “*Indian River County - Sector 3 Beach & Dune Restoration Project*”, COPRI Coastal Engineering Practice Conference, 2011.
- Walther, M.P. “*Evolution of Coastal Structures Use and Policy*”, ASBPA National Coastal Conference, 2010.
- Walther, M.P. “*Policy, Politics & the Challenges of Using Upland Sand Sources*”, FSBPA Annual Conference, 2010.
- Walther, M.P. and Dawson, W. “*Brevard County Multi-Purpose Artificial Surfing Reef Feasibility Study*”, FSBPA National Conference on Beach Preservation Technology, 2009.
- Walther, M.P. “*Case Study: Lake Michigan Inlet-Beach Interaction*”, ASBPA National Conference, 2008.
- Walther, M.P. and Vogt, J. “*Risk and Beach Restoration Design*”, FSBPA National Conference on Beach Preservation Technology, 2008.
- Walther, M.P. “*Reaching Out to Other Coastal Stakeholders*”, FSBPA Annual Conference, 2007.
- Walther, M.P. “*Surfing Resources and Corps Shore Protection/Navigation Projects*”, FSBPA National Conference on Beach Preservation Technology, 2007.
- Walther, M.P. “*Surfing Resources & Corps Shore Protection/Navigation Projects*”, ASBPA Fall Conference 2006.
- Walther, M.P. “*Shore Protection and Navigation Environmental Design Criteria*”, ASBPA Fall Conference 2005.
- Walther, M.P. and Parkinson, R.P. “*Beach Sediment Grain Size Characteristics*”, FSBPA National Conference on Beach Preservation Technology, 2005. (Unpublished Presentation)
- Walther, M.P. and Tomasello, T. “*Sebastian Inlet Management & Litigation*”, FSBPA National Conference on Beach Preservation Technology, 2004. (Unpublished Presentation)
- Walther, M.S. and S. Tate. “*When Policy Meets Practice: Artificial Reef Mitigation in the Highly Ephemeral Nearshore Zone.*” FSBPA Annual Conference, 2004.
- Sun, D., and Walther, M.P. “*Numerical Modeling of Tidal Flow and Sediment Transport at Mitchell’s Cut, Matagorda, Texas*”, Estuary and Coastal Modeling, Volume 8, 2003.
- Sun, D., Truitt, C. and Walther, M. “*Coastal System Assessment—Stump Pass Sand Bypass Project*”. Coastal Sediments 2003-Crossing Disciplinary Boundaries. Proceedings of the International Conference , edited by Richard A. Davis, Ashbury Sallenger and Peter Howd. 2003.
- Walther, M.P. “*The Retreat Solution – A Case Study in Effective Mitigation*”, Solutions to Coastal Disasters Conference, 2002.
- Walther, M.P. and Ravella, P. “*A Tale of Two Cities – Palm Beach, Florida and Surfside Beach, Texas*”, ASBPA/ACC Shore and Beach Protection Conference, 2001.
- Walther, M.P. “*Inlet Sand Transfer Performance Overview*”, 13th Annual National Conference on Beach Preservation Technology, 2000.
- Walther, M.P. “*Coastal Sediments - A Valuable Natural Resource*,” Coastal Zone 99, 1999.
- Walther, M.P. “*Inlet Effects - Downdrift Translation by Natural and Artificial Headlands*,” 8th Annual National Conference on Beach Preservation Technology, 1995.
- Walther, M.P. “*Looking for Sand Sources Further Offshore Case Study: Venice Phase II*,” 8th Annual National Conference on Beach Preservation Technology, 1995.
- Walther, M.P. and Douglas, B. D “*Use of Ebb Shoal Borrow Areas*,” 6th Annual National Conference on Beach Preservation Technology, 1993.
- Walther, M.P. “*Ebb Shoal Borrow Area Recovery*,” Journal of Coastal Research, Special Issue No. 18, pp. 211 - 212, Fall 1993.
- Walther, M.P., Douglas, B.D. and Fitzpatrick, K. “*Sebastian Inlet Sand Transfer Performance*,” Proceedings of the 1992 National Conference on Beach Preservation Technology, pp. 293-309.
- Walther, M.P. and Douglas, B.D “*Sorting Characteristics of Tidal Inlets*,” Proceeding of Coastal Sediments '91, Vol. 2, pp. 1462-1475.
- Walther, M.P “*Dune Maintenance*,” Proceeding of Coastal Zone '91, Vol. 1, pp. 235-245.
- Walther, M.P “*Inlet Sand Transfer*,” Proceeding of Coastal Zone '89, Vol. 2, pp. 1711-1723.
- Walther, M.P., Sasso R.H. and Lin, C.P. “*Economics of Sand Transfer*,” FSBPA Proceeding of Beach Preservation Technology '89, pp. 199-207.



CLIFF TRUITT, P.E., Ph.D., D.C.E.

Senior Engineer and Principal QA Officer

Cliff's background includes over 35 years of experience in coastal processes, coastal structure design, and related research. As the former Bureau Chief of the Florida Department of Natural Resources (now FDEP) and the senior technical head of Florida's statewide coastal regulatory program, Cliff was responsible for the review, evaluation and impact assessment of every coastal construction project proposed for construction in Florida at the time.

At one time, Cliff was a Principal Investigator and Research Hydraulic Engineer at the US Army Corp of Engineers' Coastal Engineering Research Center. Cliff supervised 12 engineers and scientists in the Coastal Structures and Evaluation Branch. At the Research Center, Cliff coauthored, "*An Alternative Design Approach for Detached Breakwater Projects*" which is used by Corps Districts and private consultants worldwide. The manual presents empirical methodologies and procedures to design detached offshore breakwaters.

Cliff has served as a member of Technical Advisory Committees in overseeing the development of management plans for several Florida inlets and passes and is a member of Sarasota County's Coastal Advisory Committee. Cliff is a certified Diplomate in Coastal Engineering by ASCE's Academy of Coastal, Ocean, Port and Navigation Engineers and is a registered professional engineer in Florida, Alabama and Louisiana.

EDUCATION

Ph.D. - Civil Engineering-1987
Texas A&M University

M.E. - Ocean Engineering-1983
Texas A&M University

B.S. - Physical Oceanography - 1970
FL Institute of Technology

PROFESSIONAL EXPERIENCE

2009- Present: Sr. Engineer & Principal QA Officer
1998-2008: Director of Engineering
Coastal Tech

1991 - 1998: Senior Scientist
Mote Marine Laboratory

1988- 1991: Director of Engineering Services
Coastal Planning & Engineering, Inc.

1984 - 1988: Research Hydraulic Engineer
U.S. Army Waterways Experiment Station

1982 - 1984: Graduate Student/Research Assistant
Dept. of Civil Engineering
Texas A&M University, College Station

1978 - 1982: Bureau Chief, FL DNR,
Division of Beaches and Shores

PROFESSIONAL AFFILIATIONS

1998 recipient of FSBPA's *Purpura-Chiu
Engineering Excellence Award*
American Society of Civil Engineers
Florida Shore & Beach Preservation Association

PROJECT EXPERIENCE

FDEP System-wide Parks Management Plan
Dauphin Island, AL Beach & Barrier Island Restoration
Bird Key Park Shoreline Stabilization
Caspersen Park Boardwalks Design & Permitting
Riverine Sand Mining/Scofield Island, LA Restoration
Venice Mitigation Reef Design
Sarasota Shore Protection Project – Venice Segment
Sarasota County Comprehensive Inlet Mgt. Plan
Navarre Beach Restoration Project
Stump Pass Experimental Stabilization-Third Party
Technical Review
Venice Inlet Management Plan
Big Sarasota Pass Technical Review Committee
New Pass Technical Review Committee
S. Lake Worth Inlet Technical Advisory Committee
Turtle Beach Erosion Control
Treasure Island Sand Sharing
Stump Pass Erosion Control Project
Charlotte/Sarasota County Beach Restoration Study
Longboat Key Beach Management Committee
Sarasota Bayshore Protection Projects
Casey Key Road Revetment
Port Everglades Jetty Rehabilitation
Copano Bay, TX Breakwater



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PUBLICATIONS & PRESENTATIONS

- Alymov, V., Poff, M., Quick, D., Truitt, C., and Vernon, J. "Design Premises for the Charlotte County Erosion Control Project", FSBPA National Conference on Beach Preservation Technology, 2012.
- Dixon, C., Douglass, S., Buhring, T., Thomson, G., Truitt, C. and Collier, J. "Dauphin Island, Alabama Beach and Barrier Island Protection and Restoration", ASBPA National Coastal Conference, 2011.
- Barua, D., Walther, M. and Truitt, C. "Littoral Shoreline Change in the Presence of Hardbottom-Approaches, Constraints, and Integrated Modeling", FSBPA National Conference on Beach Preservation Technology, 2009.
- Truitt, C.L., Truitt, P.G. and Latch, M. "Florida Parks: Natural Systems and Human Pressure", FSBPA National Conference on Beach Preservation Technology, 2008.
- Truitt, C.L., V. Alymov, T. Beck, R. Davis, M. Poff, P. Wang. "Sarasota County Comprehensive Inlet Management Program: Big Pass and New Pass Management Alternatives". April 2008.
- Walther, M., Weber, C., and Truitt, C. "Navarre Beach Restoration". ASBPA/GLO Fall Conference, 2007.
- Truitt, C.L. and Walther, M. "City of Venice – Beach Fill Performance". FSBPA National Conference on Beach Preservation Technology, 2006.
- Truitt, C. and Poff, M. "Performance of Charlotte County Erosion Control Project During Hurricane Charley". FSBPA National Conference on Beach Preservation Technology, 2005.
- Truitt, C. and Sun, D. "Preliminary Observation on the Experimental Re-Opening of East Pass-St. Andrews Bay". FSBPA National Conference on Beach Preservation Technology, 2004.
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- Dombrowski, Michael R. and Truitt, C.L. "A Comprehensive Inlet Management Program, St. Andrews Bay Entrance, Bay County, Florida." 2002. Proceedings of the Fifteenth Annual National Conference on Beach Preservation Technology, Florida Shore and Beach Preservation Association, Tallahassee, FL. 2002.
- Boehning, Stephen B. and Truitt, C.L. "The Treasure Island Sand Sharing Project." Proceedings of the Fifteenth Annual National Conference on Beach Preservation Technology, Florida Shore and Beach Preservation Association, Tallahassee, FL. 2002.
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- Irish, Jennifer L. and Truitt, C.L.. "Beach Fill Storm Response at Longboat Key, Florida", Proceedings of the Eighth Annual National Conference on Beach Preservation Technology, Florida Shore and Beach Preservation Association, Tallahassee, FL., 1995.
- Lillycrop, W.J., L.E. Parson, L.L. Estep, P.E. LaRocque, G.C. Guenther, M.D. Reed, and C.L. Truitt. "Field Test Results of the U.S. Army Corps of Engineers Airborne LIDAR Hydrographic Survey System", Proceedings of the U.S. Army Corps of Engineers 1994 Training Symposium on Surveying, Mapping, Remote Sensing and Geographic Information Systems, Headquarters U.S. Army Corps of Engineers, Washington, D.C., 1994.
- Truitt, C.L. (Personal Author) "Review of Recent Geotextile Coastal Erosion Control Technology," U.S. Army Corps of Engineers Engineer Technical Letter No. 1110-2-353, Department of the Army, Washington, D.C., 1993.
- Truitt, C.L., N.C. Kraus, and D. Hayward. "Beach Fill Performance at the Lido Beach, Florida, Groin", Proceedings of Coastal Zone '93: the Eighth Symposium on Coastal & Ocean Management, ASCE, NY, 1993.
- Hodgin, D.A., C.L. Truitt, J.J. Foote. "Beach Compactness Regulatory Criteria for Nesting Sea Turtles on the Southwest Florida Shoreline", Proceedings of the 1993 National Conference on Beach Preservation Technology, Florida Shore and Beach Preservation Association, Tallahassee, FL., 1993.
- Rosati, J.D. and C.L. Truitt. "An Alternative Design Approach for Detached Breakwater Projects," Miscellaneous Paper CERC-90-7, US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, 1990.
- Walton, T.L. J.P. Ahrens, C.L. Truitt and R.G. Dean. "Criteria for Evaluating Coastal Flood-Protection Structures". Technical Report CERC-89-15, Prepared for the Federal Emergency Management Agency, by US Army Engineer Waterways Experiment Station, Vicksburg, Mississippi, 1989.
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- Truitt, C. and J. Herbich. "Transmission of random waves through pile breakwaters." In: Proceedings of the 20th International Conference on Coastal Engineering. 1987.
- Truitt, C. "Wave Transmission through Closely-spaced Pile Breakwaters." TAMU Masters Thesis. 1984.



TEM FONTAINE, P.E.

In-house Project Manager

Tem joined Coastal Tech as a Project Engineer just prior to completing his Master’s degree in Coastal Engineering from the University of Florida. Tem has an extensive background in construction observation services as well as numerical modeling and computer programs.

Tem has provided construction observation services for a 1075 foot boardwalk, canoe launch facility, and elevated observation deck at the *Environmental Learning Center*; *Wabasso Beach Park* which was destroyed by Hurricanes Jeanne and Frances; and the *Sector 3 Beach Restoration Project* which are all located in Indian River County. For the *Indian River Land Trust*, Tem designed, permitted, and performed construction observation services for signage in two different parks owned by the Land Trust.

Tem provided the site observation services for the post-storm partial dune restoration project in *Navarre Beach* Florida. Tem has also provided the site observation services for a dune nourishment project fronting the beach of *Baytree* and *Marbrisa* developments in Indian River County and a dune nourishment and dune overwalk at *Caledon Shores* in Indian River County. Tem is currently working on the *Venice Outfalls Design & Permitting* for modification of existing beach outfalls for the City of Venice, and the design and permitting of a replacement seawall for the proposed condominiums at *Daytona Resort* in Dayton Beach in Florida.

For the *St. Lucie County South Beach Design & Permitting* project, *Indian River County Sector 3 Design & Permitting* project, and the *Sargent Beach Nourishment & Dune Protection* project, Tem utilized his modeling experience by applying DNRBS to calculate the response of a shoreline in the vicinity of a beach nourishment project due to alongshore ‘spreading’ of the beachfill. Tem’s modeling experience includes the *South Marco Island Beach Renourishment & Structural Enhancements* project and the Town of Palm Beach *Coastal Structures Assessment* project, where he applied Mike21 to predict the beach response to alternative structural configurations. Tem is a registered Professional Engineer in the state of Florida.

EDUCATION

M.S. Coastal & Oceanographic Engineering, 2008
University of Florida

B.S. Mechanical Engineering, 2006
University of Florida

PROFESSIONAL EXPERIENCE

2007 to Present: Coastal Tech
Project Engineer

2006 to 2007: Jones Edmunds
Engineer Intern

PROJECT EXPERIENCE

Wabasso Beach Park Restoration - Construction Oversight
Environmental Learning Center
Indian River Land Trust Signage Design & Permitting
St. Lucie County South Beach Design & Permitting
Venice Beach Outfalls Modification Design & Permitting
Orchid Island Beach & Dune Preservation Assessment
Baytree/Marbrisa Dune Restoration
Caledon Shores Dune Restoration & Dune Overwalk
Indian River County Sector 3 – Construction Phase
Indian River County Sector 3 Design & Permitting
Town of Palm Beach Reach 7 Beach Restoration
Town of Palm Beach Coastal Structures Assessment
Navarre Beach Post-Construction Monitoring
South Marco Beach Nourishment & Structural Enhancements
FDEP Geotextile Structure Assessment
Navarre Beach Post-Storm Partial Dune Restoration
Sargent Beach TX Nourishment & Dune Protection



Enhancing Coastal Life.



WALKER DAWSON, P.E.

Project Engineer

In 2006 Walker joined Coastal Tech as a Project Engineer. Walker has worked on various types projects from design, permitting, and construction oversight for beach and dune restoration projects to construction oversight on seawall construction.. He specializes in characterization of coastal sediment processes and coastal morphology specific to wave transformation, cross-shore sediment transport, and alongshore sediment transport via application of analytical, empirical, and numerical models. Walker is a registered Professional Engineer in the state of Florida.

Prior to becoming a Project Engineer with Coastal Tech, Mr. Dawson joined Coastal Tech’s *Coastal Geology & Sediments Lab* in 2004 while attending Florida Institute of Technology. As a Geotechnical Lab Technician, Walker supported projects involving (a) delineation of offshore borrow areas for beach restoration projects and (b) sediment sampling, testing and characterization.

EDUCATION

B.S. Ocean Engineering Science, 2006
Florida Institute of Technology

PROFESSIONAL EXPERIENCE

2006 to Present: Coastal Tech
Project Engineer

2004 to 2006: Coastal Tech
Geotechnical Lab Technician

PROJECT EXPERIENCE

Brevard County Christenson’s Landing Boat Ramp
Brevard County Feasibility of Artificial Surf Reefs
Whitley Bay Marina
Canaveral National Seashore Geologic Mapping
Oceanus Revetment Restoration
Volusia County Offshore Sand Search
Volusia Shores Development – Dune Design
Indian River County Sector 3 Design & Permitting
St. Lucie County Spur Jetty Emergency Repair
Venice Annual Monitoring Reports
Navarre Beach Restoration Construction
Navarre Beach Annual Monitoring
Navarre Beach Maintenance Design
Indian River County Beach Preservation Plan
St. Lucie County South Beaches Design & Permitting
St. Lucie County Mitigation Reef Design & Permitting
St. Lucie County Emergency Dune Remediation
St. Lucie County Upland Sand Search
St. Lucie County Blind Creek Restoration
Moontide Seawall
Harbor Branch Seawall Assessment
Salt Ponds VA Inlet Assessment
John’s Island Dune Restoration
Anna Maria Dune Restoration Expert Witness
Sunset Beach Reef Impact Assessment
Gulf County Offshore Geotechnical Investigation
Sunset Beach Reef Impact Assessment
Rio Marina Hydrographic Study
Kissimmee Lake Toho Flushing Study
Town of Palm Beach Structural Assessment
Sargent Beach TX Sand Source Investigation
Bicentennial & Millennium Parks Emergency Dune Restoration
Surfside TX Sand Source Investigation



LISA COLMENARES, AICP

Senior Planner



Overview

Ms. Colmenares has over seventeen years experience as a Transportation Planning Manager. She is responsible for project management, transportation reports, presentation of the project and intergovernmental coordination. She has prepared over a dozen Comprehensive Plans from Homestead to Saint Lucie County. Ms. Colmenares has also managed transit projects in South Florida and South America, and a variety of transportation master plans. Ms. Colmenares represented MDX at the Miami-Dade MPO's 2030 Long Range Transportation Plan Committee and the 2006-2010 Transportation Improvement Program Committee. She has served as the General Traffic and Transportation Consultant to a variety of municipalities in the South Florida region, understanding the dynamics of working as an extension of staff and having drafted a series of ordinances and resolutions pertaining to land use, urban design, concurrency, capital programs and transportation. She is currently an Adjunct Faculty at Florida Atlantic University.

Project Experience

Districtwide Public Transportation Office Consultant, Miami-Dade and Monroe Counties, FL; Client: FDOT District 6; Reference: Paola Baez, PE, #(305) 470-5333; Corridor Length: N/A; Project Duration: 2008 to 2012 - Project includes assignments that involve developing traffic control plans for railroad crossing rehabilitation projects, fixed-guideway transit safety inspections, Federal Transit Administration Section 5310 vehicle inspections, aviation maintenance inspections, and review of Regional and State Seaport, Aviation and Rail projects. Primary Role: Project Manager. Tasks include:

- LAP agreements with the City of Key West
- Scoping Report for the West Lot Golden Glades Park and Ride
- A Lower Keys bus route survey
- Administration of the 5310 program for District 6

City of Miami Beach Transportation Services, Miami-Dade County, FL, City of Miami Beach - Provided in-house transportation services to the City. Responsibilities included preparing annual and quarterly reports for the People's Transportation Fund, preparation of documentation pertaining to the Interlocal Agreement with the County for the adoption of the City's Traffic Calming Manual, preparation of baseline indicators for the City's Sustainability Plan, traffic impact studies reviews, intergovernmental coordination, and other special projects as requested. Primary Role: Project Manager

District-wide Corridor Planning Studies (MPO Coordination), Miami-Dade County, FL, FDOT District 6 - Managed Joint Planning Agreements with municipalities, grant administration, and preparing special projects for the Transportation Improvement Program, the Long Range Transportation Plan and the UPWP. Assisted the

Years of Experience

17

Work History

BCC Engineering, Inc.
2010 – Present

Florida Atlantic University
2010-Present

The Corradino Group
2008 – 2010

Calvin-Giordano & Associates
2006 - 2008

Bermello, Ajamil & Partners
2004 - 2006

City of Boca Raton
2003

Miller Consulting, Inc.
2000 – 2003

Grupo AM (Venezuela)
1995 - 1999

Education

MS International Business, 2005
Florida Atlantic University

MURP International Planning, 2002
Florida Atlantic University

Bachelors of Architecture, 1995
Universidad Central de Venezuela

Career Highlights

Successfully completed:

Vice –Chair of the Human Services Board, City of Hallandale Beach
January 2011-Present

Urban Transportation Specialization, World Bank – National Fund for Urban Transportation – Metropolitan University – Booz Allen & Hamilton, April - September 1995, (1,280 hours)

Local Agency Program Workshop, Project Initiation to NTP, FDOT October 2007

G250.7 Local Situation (RAPID) Assessment and G270.4 Recovery from Disaster: the Local Government Role, April 20-21, 2009, Division of Emergency Management GEOPAK Road I, January 2001

GEOPAK CORSIM Training, FDOT 2002

Registration

American Institute of Certified Planners
2003, #134384



Department with the review of the Transportation Design Guidelines for Livable Communities. Primary Role: Project Manager

City of Boca Raton Senior Planner, Boca Raton, FL - Ms. Colmenares was involved with conditional use approval projects, rezoning projects, and comprehensive land use changes, for projects in the Planning Process. She was part of the Planning Advisory Committee, working with Applicants on projects and delivering presentations to the Planning & Zoning Board, City Council and diverse City Boards. Primary Role: Senior Planner

Metropolitan Planning Organization General Planning Consultant Services: Health District Comprehensive Traffic Study, May 2009, Miami-Dade County, FL - Responsible for the preparation of a series of multimodal recommendations to address the identified transportation deficiencies, improve the study area in terms of safety and provide an adequate level of service. Primary Role: Project Manager

City of Homestead Traffic Consultant, Miami-Dade County, FL - Ms. Colmenares served as the City's traffic consultant. Services included projects to implement the Transportation and Transit Master Plan for the City and transportation demand management strategies within the Commercial Design Guidelines for the City Code. Ms. Colmenares reviewed traffic impact studies, and prepared traffic memorandums to present to the Planning and Zoning Board, City Council and to other City Boards. Primary Role: Project Manager

City of Homestead Proportionate Fair Share Ordinance/ City of Homestead Automated Concurrency Management System, Miami-Dade County, FL - Ms. Colmenares served as the Transportation Project Manager updating the City's Concurrency Management Ordinance and assisting in drafting guidelines for transportation reviews, proportionate fair share and transportation concurrency. Ms. Colmenares authored the City's first automated concurrency management system. The City worked with developers and coordinated with other agencies to implement and update the system. Primary Role: Project Manager

City of Homestead Transportation and Transit Master Plan, Miami-Dade County, FL - Project Manager for the City's first Transportation and Transit Master Plan. The project included extensive public meetings and presentations to the different stakeholders in the process, multimodal transportation planning, and the implementation of short, mid and long term improvements. The projects served as a basis to update the City's Capital Improvement Plan. Primary Role: Project Manager

City of Homestead Commercial Design Guidelines, Miami-Dade County, FL - Prepared the City's first commercial design guidelines, which were adopted by Ordinance in the City's Zoning Code. The guidelines served to enhance property development within the established City of Homestead commercial development overlay districts. Primary Role: Assistant Project Manager

Resurfacing, Restoration and Rehabilitation (RRR) of Streets and Highways Safety Review as per FDOT Plans Preparation Manual, Chapter 25 for Indian Creek Drive from Abbott Avenue to 71st Street, Dickens Avenue from 71st Street to 81st Street, and Byron Avenue from 81st Street to 87th Terrace; Miami-Dade County, FL, City of Miami Beach/FDOT District 6 - Prepared a RRR Safety Study as part of a Local Agency Participation agreement between the City and FDOT. The purpose of the study was to identify traffic safety concerns/significant crash patterns and recommend mitigation focused on enhancing safety at several locations and meet Chapter 25 of the FDOT Plans Preparation Manual. Ms. Colmenares coordinated with diverse review agencies and stakeholders along the corridor. Project Role: Project Manager



ARIEL MILLAN, PE

Civil/Roadway Engineer



Overview

Mr. Millan has eighteen years of Highway Engineering experience. His abilities encompass a broad range of skill sets from roadway geometrics and drainage design, to the development of an effective traffic control plan. His roadway experience includes 3R projects, urban curb and gutter roadway reconstruction projects, rural highways with flush shoulders, and limited access facilities with complex urban interchanges. His drainage experience includes the design and permitting of open and closed drainage systems with swales, cross drains, retention ponds, storm sewer systems, and exfiltration systems. In addition to his technical abilities, he is a highly effective Project Manager and Task Leader. He is well aware of the effort required to successfully complete roadway design projects including coordination with the client, sub-consultants, permitting agencies, contractors, the supervision of design/production personnel, and the systematic implementation of an effective quality control/quality assurance plan (QA/QC).

Project Experience

South Roosevelt Boulevard / SR A1A from MP 0.000 to MP 0.778, Monroe County, FL, City of Key West - Engineering design for the reconstruction of SR A1A, a four lane undivided road running along the southern coast of Key West along Smathers Beach. BCC was responsible for the development of the lighting and drainage systems. Major project feature included the design of a drainage system that would minimize impacts on environmentally sensitive coastal waters, permitting for that system, extensive regulatory agency coordination and the use of decorative lighting fixtures for roadway and pedestrian lighting. Primary Role: Project Engineer for the development of Roadway Plans.

US-1 (SR 5) Design-Build Project, Miami-Dade County, FDOT District 6/Community Asphalt Corporation - Design of a 4-mile section of US-1 between Florida City and Key Largo. Project involved reconstructing US-1 from an undivided 2-lane rural road to a divided 2-lane rural road in order to introduce a buffer separation between northbound and southbound traffic. Major project features included extensive de-mucking of the corridor, installation of drainage swales to provide water quality (including an under drain seepage system), extensive utility coordination, maintenance of traffic, and storm water pollution prevention plans in an environmentally sensitive area. Primary Role: Project Manager/Engineer of Record

Central Boulevard Widening Realignment and Service Loop, Design-Build Project, Miami-Dade County, FL, Miami-Dade Expressway Authority (MDX) - Improvements to the inbound and outbound roadways to and from the Miami International Airport ("MIA") and access between MIA and SR 836 and SR 112. The major components of the work include new bridges, MSE walls, roadway reconstruction, construction of a north and south service roads, and reconfiguration of the existing Central Boulevard to go over Perimeter Road. In addition to the above major works, improvements will also include Drainage, Signing and Pavement Markings, Lighting, Signalization, Utilities, ITS and Landscaping. Primary Role: Project Manager/Engineer of Record

SR 826 (Palmetto Expressway) Improvements Program Design-Build Project, Section 2, Miami-Dade County, FL, FDOT District 6 - Project involves the widening and reconstruction of SR 826 from South of Sunset Drive to North of SW 31st Street and includes the SW 56th Street, SR 874 and SR 976/SW 40th Street Interchanges. The

Years of Experience

18

Work History

BCC Engineering, Inc. (Miami)
2005 – Present

Gannett Fleming, Inc.
2001 – 2005

Metric Engineering, Inc.
1994 – 2001

Education

MSCE, 1999
Florida International University
BSCE, 1995
Florida International University

Career Highlights

Successfully completed:

Streamline
Technology ICPR
Hands on Training
Florida Advance Training (MOT)
FDOT Specifications Package
Preparation Training

Registration

Professional Engineer
Florida # 54572, 1999
Texas # 87326, 2000



proposed improvements include the addition of one general use lane in each direction; auxiliary lanes between all interchanges; interchange improvements and, operational and safety improvements along the SR 826 mainline and ramps. Primary Role: Project Manager/Engineer of Record

Krome Avenue from SR 5/US-1 to SW 328th Street, Miami-Dade County, FL, FDOT District 6 - Project entails the reconstruction of over 1.7 miles of Krome Avenue from a 2-Lane undivided facility to a 4-Lane divided facility. The typical section of the road varies from a rural section towards the south end of the project to an urban section at the northern end of the project. Primary Role: Task Manager Traffic Control Plans

Districtwide Miscellaneous Design No. 72 (RRR Projects), Various Locations, East Central FL, FDOT District 5 - Work involves the revision and/or update of previously completed construction plans; the design of highway improvements, pedestrian/bicycle facilities, minor bridge structures, parking lots, access roads, drainage facilities, highway lighting, pavement markings, signing, and signalization; and the restoration of pavement. Primary Role: Project Manager/Engineer of Record

NE 71st Street from Bay Drive East to Bay Drive West, Normandy Isle, City of Miami Beach, FL, FDOT District 6 - Resurfacing, Restoration and Rehabilitation (3R) of NE 71 St From Bay Drive East to Bay Drive West. The existing roadway is the eastbound section of a one-way pair urban principal arterial. Primary responsibilities include Project Manager / Engineer of Record for the development of the construction drawings, pavement design, design variations package, and typical section package.

SW 137th Avenue between the HEFT and US-1, Miami-Dade, Florida, Miami-Dade County Public Works Department (MDPWD) - Project consist of the improvements to SW 137th Avenue from an undivided two-lane rural section to a 4-lane section. Design services include planning, traffic operations, roadway, design of a closed drainage system, Signing and Pavement Marking, signalization, roadway lighting and Public involvement. Primary Role: Project Manager responsible for overseeing aspects in the preparation of design plans, drainage reports, lighting, signing and pavement markings and permitting.

SW 152nd Street at SW 112th Avenue (SR 992) Safety Improvement Project, Miami-Dade County, FL, FDOT District 6 - This project involves the safety related improvements to the SW 152nd Street/SW 112th Avenue intersection to reduce the frequency of accidents. The safety recommendations included reducing the median width and travel lanes to offset the left-turn bays and improve the alignment/visibility along all intersection approaches. Primary Role: Project Manager responsible for development of the roadway plans, signing and pavement marking plans, quantifying the pay items and preparing the cost estimates/Compbook for each phase submittal

Normandy Drive (SR 934) from NE 71st Street to Rue Notre Dame (RRR), Normandy Isle, Miami-Dade County, FL, FDOT District 6 - Resurfacing, Restoration and Rehabilitation (3R) along Normandy Drive beginning at Rue Notre Dame (MP 0.31) and continuing for approximately 0.31 miles to N.E. 71st Street (MP 0.00). The existing roadway is the westbound section of a one-way pair urban principal arterial. Primary responsibilities include Project Manager / Engineer of Record for the development of the construction drawings, pavement design, design variations package, and typical section package.

SW 268/264 Street Connector, Miami-Dade County, FL, Miami-Dade County Public Works Department (MDPWD) - Project consist of the improvements to SW 268th Street from a 4-lane undivided section to a 5-lane section from SW 142nd Avenue to SW 122nd Avenue with a two-way left turn lane and a 4-lane divided section with a median separator from SW 122nd Avenue to SW 112th Avenue. The project will include curb & gutter, sidewalk (in developed sections) and bicycle lanes throughout the project limits. Primary Role: Project Engineer responsible for overseeing aspects in the preparation of design plans, drainage reports, lighting, signing and pavement markings and permitting.



ROBERT HELMER, PE, LEED® AP
Civil/Roadway Engineer



Overview

Mr. Helmer has five years of Transportation Engineering experience. During this time, he has been extensively involved in conceptual and master planning, final design and Project Development and Environmental (PD&E) studies on roadway projects for FDOT, municipalities and other public agencies. Mr. Helmer’s experience includes design of roadway geometrics, utility coordination, signing and pavement markings, traffic signalization, roadway drainage and roadway lighting.

Project Experience

South Roosevelt Boulevard / SR A1A from MP 0.000 to MP 0.778, Monroe County, FL, City of Key West - Engineering design for the reconstruction of SR A1A, a four lane undivided road running along the southern coast of Key West along Smathers Beach. BCC was responsible for the development of the lighting and drainage systems. Major project feature included the design of a drainage system that would minimize impacts on environmentally sensitive coastal waters, permitting for that system, extensive regulatory agency coordination and the use of decorative lighting fixtures for roadway and pedestrian lighting. Primary responsibilities included the development of the drainage and lighting design, and environmental permitting.

Districtwide Public Transportation Office Consultant, Miami-Dade and Monroe Counties, FL, FDOT District 6 - Project Engineer for several assignments that involve developing traffic control plans for railroad crossing rehabilitation projects, fixed-guideway transit safety inspections, Federal Transit Administration Section 5310 vehicle inspections, and aviation maintenance inspections. One of the assignments entailed the development of the signing and pavement marking plans for the Golden Glades East Park and Ride Lot. The Department expects park and ride usage at the Golden Glades to increase as part of the I-95 Express managed lanes project and expects to utilize the eastern lot to address the additional demand. Primary Role: Project Engineer

SR 826 (Palmetto Expressway) Improvements - Section 5 Design-Build, Miami-Dade County, FL, FDOT District 6 - BCC Engineering is serving as the Prime Designer for this \$559,000,000 Design-Build Project to reconstruct the SR 826 (Palmetto Expressway) / SR 836 (Dolphin Expressway) Interchange. This Project includes the reconstruction of SR 826 from south of Flagler Street to north of NW 12th Street and SR 836 from east of NW 87th Avenue to west of 57th Avenue. The SR 826 / SR 836 Interchange is a 4-level System-to-System Interchange with direct connectors that provide for traffic movements in all directions between the two expressways. The project also includes the reconstruction of two service interchanges, the reconstruction of NW 12th Street and the realignment of the North Line Canal. Primary Role: Project Engineer

Design Services for SR 823/Flamingo Road from N. of SR 818/Griffin Road to S. of SR 84, Broward County, FL, FDOT District 4 - The project consists of milling and resurfacing, minor widening, sidewalk construction, drainage modifications, and permitting of a 6-lane divided principal arterial in Broward County for a total project length of 3 miles. The scope of work is that typical of a 3R project with the addition of the construction of a continuous sidewalk for the length of the project with associated drainage impacts to existing conveyance and store swales. Coordination and permitting with SFWMD and Central Broward Drainage District was involved on this project. Primary Role: Project Engineer

Years of Experience
5

Work History
BCC Engineering, Inc.
2009 – Present
DeSimone Consulting Engineers
2007-2008
Kiewit Southern Co.
2007

Education
BSCE, 2007
University of Miami

Registration
Professional Engineer, 2011
Florida # 73520
LEED AP



District-wide PD&E Traffic Consultant, Miami-Dade County, FL, FDOT District 6 - Assisted in miscellaneous tasks in the PD&E office. One of the assignments included the Planning Analysis of Turbo Lane Implementation at T-Intersections, which consisted on identifying all of the signalized T-intersection within the State Road System in Miami-Dade County for potential Turbo Lane Implementation. Primary Role: Project Engineer

SR 9/ NW 27 Ave from 26' south of NW 122 Street to 105' S of NW 135 Street, Miami-Dade County, FL, FDOT District 6 - Project included preparation of a RRR Scoping Report for this six-lane urban roadway with raised median and intermittent sidewalks in Miami-Dade County that included an assessment of safety and existing physical and operational conditions of the project based on requirements from Chapter 25 of the FDOT Plans Preparation Manual. Primary Role: Project Engineer

District-wide Planning and PD&E Consultant, Miami-Dade County, FL, FDOT District 6 - Project Engineer to provide general PD&E and Planning in-house support for the Department. The in-house support tasks include the review and comment for reports.

San Marco Island, Miami-Dade County, FL, City of Miami - The project involves the drainage analysis and re-design of the drainage system to resolve flooding issues associated with the Island. The drainage design includes drainage calculations, hydrologic/hydraulic modeling and development of the drainage design plans. The analysis consists of performing hydraulic calculations for different alternatives for the existing conditions and post conditions using ADICPR; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling. In addition, includes extensive coordination and permitting with Miami-Dade County Department of Environmental Resources Management (DERM) and field investigations to identify existing conditions and topographic surveys provided. Project Engineer responsible for cost/quantity estimates and plans production for this project.

SR 836/Dolphin Expressway Eastbound Auxiliary Lane, Miami-Dade County, FL, Miami-Dade Expressway Authority (MDX) - Project consist of the widening of the SR 836 mainline in the eastbound direction for approximately 1.3 Miles. Design Services include the development of the preliminary roadway geometry, preparation of a conceptual drainage report, preparation of a concept report, and assisting MDX in the preparation of the RFP package. Primary Role: Project Engineer responsible for assisting in the preparation of drainage structure shop drawing review.

SW 62nd Avenue from SW 74th Street to SW 60th Street, Miami-Dade County, FL, Miami-Dade Public Works Department - Developed roadway master plans for the reconstruction of approximately 0.5 miles of an urban arterial. Responsibilities included drainage design and permitting, utility coordination, traffic control plans, signing and pavement marking plans, signalization plans, and roadway lighting.

I-75 PD&E Project Study From north of the Homestead Extension of Florida's Turnpike (HEFT) Interchange in Miami-Dade County to the I-595 Interchange in Broward County, Miami-Dade and Broward Counties, FL, FDOT Districts 4 and FDOT District 6 - Project Development and Environment (PD&E) Study for Interstate 75 improvements to relieve existing and future congestion. The study included alternatives for the possible addition of reversible/special use and auxiliary lanes and interchange improvements. The study also included a dedicated transit way adjacent to the highway with stations at appropriate intervals. Engineering services provided include hydrology and hydraulic calculations; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling; as well as environmental permitting services. Primary role: Project Engineer responsible for creating existing signage plan sheets



RICARDO A. AYALA, PE

Civil/Roadway Engineer



Overview

Mr. Ayala has twelve years of experience in the design and coordination of transportation engineering projects and in the design and quality control of Civil Engineering projects. He is responsible for the development and preparation of Roadway and Civil Engineer drawings, preparation of due diligence reports associated with regional water management projects, land development, and roadway improvement projects. He has served as Project Engineer on a number of multi-million-dollar transportation and land development engineering projects, working with various local governmental agencies including the Florida Department of Transportation, Miami-Dade County Public Works, the Miami Dade County Expressway Authority, the City of Miami, the City of Coral Gables, the City of Miami Beach, Miami-Dade Department of Environmental Resource Management, South Florida Water Management District, Miami-Dade Water and Sewer Department and the Florida Department of Environmental Protection.

Project Experience

Greenway Design for NW. S. River Drive (NW 10th Ave. to NW 4th St.) and NW N. River Drive (NW 2nd St. to 3rd St.), Miami, FL, City of Miami - Responsible for the design services including sidewalk reconstruction, utility coordination for pedestrian and street lighting, landscape, hardscape and streetscape, greenway design, road reconstruction, drainage improvements, and pavement striping and signage. Primary Role: Project Manager

Greenway Design for NW S. River Drive (NW 12th Ave. to NW 10th Ave.), Miami, FL, City of Miami - The project involves sidewalk reconstruction, coordination with FPL and the City of Miami Capital improvement Program for new pedestrian and street lighting, landscape, hardscape and streetscape road reconstruction, drainage improvements as necessary and pavement striping and signage. In addition, includes extensive utility coordination along the greenway corridor to avoid conflicts with the sidewalk widening, the change in the roadway profile, the relocation of some sections of the drainage system and the existing utility infrastructure as well. Primary Role: Project Manager/Engineer of Record responsible for the design, the utility coordination and overseeing of the plans development for this project.

San Marco Island and Biscayne Island, Miami-Dade County, FL, City of Miami - The project involves roadway reconstruction and the drainage analysis and re-design of the drainage system to resolve flooding issues associated with the Islands. The drainage design includes drainage calculations, hydrologic/hydraulic modeling, developing the drainage design plans and the design of a storm sewer lift station. The analysis consists of performing hydraulic calculations for different alternatives for the existing conditions and post conditions using ADICPR; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling. In addition, includes extensive utility coordination to relocate some FPL poles, coordinate the new design of the water distribution lines and the gas distribution lines within the island among others. Also provided extensive coordination with permitting authorities and field investigations, to identify existing conditions and topographic surveys. Primary Role: Project Engineer responsible for the design of the drainage system, roadway reconstruction, utility coordination and the plans development for this project.

Years of Experience

12

Work History

BCC Engineering, Inc.
2009 – Present
Bermello, Ajamil & Partners, Inc.
2005 – 2009
Gannett Fleming, Inc.
2000 – 2005

Education

BS Civil Engineering, 1999
Colombian School of Engineering
Bogota, Colombia

Career Highlights

Successfully completed:
Advanced Work Zone Traffic Control;
CSX Contractor Safety & Roadway
Worker Protection;
Improving Public Works Constructions
Inspection Skills Seminar

Registration

Professional Engineer
Florida # 69950, 2009
Colombia Engineering
Reg. # 2520278627CND



South-Dade Regional Water Reclamation Plant, Miami, FL - The project included site evaluation and the development of conceptual site layout alternatives for the water reclamation facility. The report documented the site selection process initiated by the MDWASD, alternative site configurations, and conceptual site design criteria. The project also included construction documents for the Earthwork and Site Preparation as well as the Environmental Resource Permit from FDEP and DERM. Final task was the design and permitting of the site and miscellaneous structures. Primary Role: Project Engineer

Grand Avenue Traffic Study, Miami-Dade County, FL, Miami-Dade Public Works Department - Responsible for a conceptual engineering and traffic study for the portion of Grand Avenue from NW 37th Avenue (Douglas Road) to NW 32nd Avenue (McDonald Street) in Miami's Coconut Grove area. The study assessed the feasibility of narrowing Grand Avenue from four lanes to two lanes while providing urban design and traffic calming enhancements, such as wider sidewalks and bulb outs, a raised median with landscaping, on-street parallel parking, streetscape furniture and related amenities. Primary Role: Project Engineer

Miscellaneous Civil Engineering Services, Miami-Dade County, FL, Miami-Dade Parks and Recreation Department - Responsible for design services for sanitary sewer collection systems and pump stations. The project included removing existing septic tank sewage collection systems for the existing buildings and connecting them to an existing public sanitary sewer system. The project also included the design of parking lots and permitting. The following are some of the Tasks that were included within the contract: Tropical Estates Park; Continental Park; Ron Ehman Park and Devonaire Park. Primary Role: Project Manager

SR 836 Extension From NW 107th Avenue to NW 137th Avenue, Miami-Dade County, FL, Miami-Dade Expressway Authority/Community Asphalt Corporation - Project Engineer for this \$140 Million SR 836 Extension Design-Build project, which consisted of a new six-lane facility extending westward from the Homestead Extension of the Florida Turnpike to NW 137th Avenue and improvements to the existing SR 836 main line and ramps to the east of the SR 836/NW 107th Avenue Interchange. The project included the construction of new and reconstructed roadways, ten new bridges, retaining walls, and noise abatement walls. Responsibilities include the preparation of signing and pavement marking plans, assisting in the preparation of Traffic Control Plans and the utility coordination.

SR 874 On-Ramp from Kendall Drive, Miami, FL, Miami-Dade Expressway Authority/Corzo Carballo Castella Thompson Salman (C3TS) - Project Engineer responsible for providing traffic analysis services and signing and pavement marking plans on this design project.

SR 50 Improvements, Lake and Orange Counties, FL, FDOT District 5/Corzo Carballo Castella Thompson Salman (C3TS) - Project Engineer responsible for providing signalization plans and traffic analysis services for the reconstruction of a major six-lane suburban arterial. The project extends from west of Hancock Road in Lake County to the Orange County line and from the Lake County Line to east of the Florida Turnpike ramps in Orange County. The project includes seven signalized intersections and coordination with two local agencies.

District wide Public Transportation Office Consultant, Miami-Dade and Monroe Counties, FL, FDOT District 6 - Construction Engineering Inspector for several assignments that involve the development of traffic control plans for railroad crossing rehabilitation projects.

SR 986 (Sunset Drive) at SW 117th Avenue, Miami, FL, FDOT District 6 - Project Engineer responsible for assisting with the development of plans for an additional left-turn lane on all four approaches to an intersection, resulting in dual left-turn lanes, and the addition of right-turn lanes on the eastbound approach of Sunset Drive, the southbound approach of SW 117th Avenue, and the northbound approach of SW 117th Avenue.



LUIS RODRIGUEZ, PE

Senior Drainage Engineer



Overview

Mr. Rodriguez is a Senior Highway Engineer with BCC and has extensive experience in highway, transportation, drainage, and civil engineering design projects. He provides guidance and direction to the highway team and provides leadership to challenges encountered in engineering analysis and design. He is responsible for developing roadway and drainage plans and the coordination of transportation engineering projects, including providing field support, preparing engineering calculations, developing specifications, reports, preparing schedules and cost estimates. His experience also includes continuous coordination with the client/owner, sub-consultants, contractors and permitting agencies from the onset of a project through its completion. Mr. Rodriguez has participated in numerous Project Development and Environmental (PD&E) Studies in the State of Florida, providing drainage plans and extensive coordination with regulatory and permitting agencies.

Project Experience

South Roosevelt Blvd./SR A1A from MP 0.000 to MP 0.778, Monroe County, FL, City of Key West - Engineering design for the reconstruction of SR A1A, a 4 lane undivided road running along the southern coast of Key West along Smathers Beach. BCC was responsible for the development of the lighting and drainage systems. Major project feature included the design of a drainage system that would minimize impacts on environmentally sensitive coastal waters, permitting for that system, extensive regulatory agency coordination and the use of decorative lighting fixtures for roadway and pedestrian lighting. Primary Role: Project Manager/ Engineer of Record responsible for the complete drainage analysis and of the lighting system design plans.

SW 137th Avenue between the HEFT and US-1, Miami-Dade County, FL, Miami-Dade County Public Works Department (MDCPWD) - Project consist of the improvements to SW 137th Avenue from an undivided two-lane rural section to a 4-lane section. Design services include planning, traffic operations, roadway, design of a closed drainage system, signing and pavement marking, signalization, roadway lighting and Public involvement. Primary Role: Senior Project Engineer responsible for providing quality assurance and control to ensure that the design and construction documents meet the county criteria and standards for accuracy and completeness.

NW 74th Street from NW 87th Avenue to NW 84th Avenue, Miami-Dade County, FL, Miami-Dade County Public Works Department (MDPWD) - The project consists of reconstruction of approximately 0.60 miles of an existing unpaved road to a proposed 4-lane corridor with a scramble lane. Reconstruction includes NW 87th Avenue. Design services include implementation of curb and gutter and sidewalk throughout the corridor, design of a closed drainage system, Signing and Pavement Marking and roadway lighting. In addition, due to existing utilities, project involves extensive utility coordination. Primary Role: Project Manager/Engineer-of-Record responsible for the complete set on the contract plans

127th Avenue from SW 6th Street to NW 12th Street, Miami-Dade County, FL, Beacon Lakes Community Development District/Miami Dade Public Works Department - Project entails the reconstruction of 127th Avenue from a 2-lane roadway to a 4-lane roadway with a shared-use median between SW 6th Street and NW 6th Street and a divided median between NW 6th Street and NW 12th Street. Primary Role: Project Engineer for the development of the construction plans, drainage design, environmental permitting, lighting design, signalization, and signing and pavement markings.

Years of Experience

11

Work History

BCC Engineering, Inc. (Miami)
2006 – Present
Gannett Fleming, Inc.
2001 – 2006

Education

MBA, 2004
University of Miami
BSCE, 1999
Civil Engineering
Universidad de Los Andes,
Colombia

Career Highlights

Successfully completed:
Florida Advance Training (MOT)
FDOT Specifications Package
Preparation Training

Registration

Professional Engineer, 2006
Florida # 63983



Design Services for SR 823/Flamingo Road from N. of SR 818/Griffin Road to South of SR 84, Broward County, FL, FDOT District 4 - Project Engineer for this project which consists of milling and resurfacing, minor widening, sidewalk construction, drainage modifications, and permitting of a 6-lane divided principal arterial in Broward County for a total project length of 3 miles. The scope of work is that typical of a 3R project with the addition of the construction of a continuous sidewalk for the length of the project with associated drainage impacts to existing conveyance and storm swales. Coordination and permitting with SFWMD and Central Broward Drainage District was involved on this project. Primary Role: Project Engineer

I-75 PD&E Project Study From north of the Homestead Extension of Florida's Turnpike (HEFT) Interchange in Miami-Dade County to the I-595 interchange in Broward County, Miami-Dade and Broward Counties, FL, FDOT Districts 4 and 6 - Project Engineer responsible for the drainage master plans and permitting to include the hydrology and hydraulic calculations; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling. Project Development and Environment (PD&E) Study for Interstate 75 improvements to relieve existing and future congestion. The study will include alternatives to include the possible addition of reversible/special use and auxiliary lanes and interchange improvements. The study will also include a dedicated transit way adjacent to the highway with stations at appropriate intervals. Engineering services provided include hydrology and hydraulic calculations; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling; as well as environmental permitting services. BCC was a Sub-Consultant to HDR, Inc. Primary Role: Project Engineer

I-595 Corridor Design Consultant from I-75/Sawgrass Expressway Interchange west of 136th Avenue to I-95, Broward County, FL, FDOT District 4 - Project Engineer responsible for the drainage master plans and permitting to include the hydrology and hydraulic calculations; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling. The project consist of the Widening of I-595 from the I-75/Sawgrass Expressway interchange to east of the I-95 interchange. The proposed widening will include elevated reversible lanes in the median serving express traffic between I-75 and I-95 with direct connections to Florida's Turnpike, and transit lanes underneath, continuous connection of SR 84 between Davie Road and SR 7, collector/distributor system between I-95 and Davie Road, braided ramps, bypass ramps, and interchange improvements and Florida's Turnpike interchange improvements. Engineering services provided include hydrology and hydraulic calculations; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling; as well as environmental permitting services for 11 miles of I-595 including eight major interchanges. Primary Role: Project Engineer

San Marco Island, Miami-Dade County, FL, City of Miami - Project Manager/ Engineer of Record responsible for the design of the drainage system and overseeing the plans development for this project. The project involves the drainage analysis and re-design of the drainage system to resolve flooding issues associated with the Island. The drainage design includes drainage calculations, hydrologic/hydraulic modeling and development of the drainage design plans. The analysis consists of performing hydraulic calculations for different alternatives for the existing conditions and post conditions using ADICPR; water quality and water quantity permitting calculations; and pre-development and post-development drainage modeling. In addition, includes extensive coordination and permitting with Miami-Dade County Department of Environmental Resources Management (DERM) and field investigations to identify existing conditions and topographic surveys provided. Primary Role: Project Manager/ Engineer of Record

Districtwide Miscellaneous Design No. 72, Various Locations, East Central FL, FDOT District 5 - Project Manager/Engineer-of-Record responsible for the provision of miscellaneous engineering services. Work involves the revision and/or update of previously completed construction plans; the design of highway improvements, pedestrian/bicycle facilities, minor bridge structures, parking lots, access roads, drainage facilities, highway lighting, pavement markings, signing, and signalization; and the restoration of pavement. Primary Role: Project Manager/ Engineer of Record

Owen John Trepanier



CAREER SUMMARY

President, Trepanier & Associates, Inc., Key West, FL ***2004 to present***

Owen is responsible for marketing and project development for this regional land-use planning firm. Provide professional planning assistance and project management to clients for affordable housing, beneficial use, commercial & residential development, comprehensive planning, conditional use approvals, condominium conversions, development plan approvals, FEMA-related issues, historic redevelopment, senior housing, site planning, variances, and zoning changes & ordinance drafting.

Associate, The Craig Company, Key West, FL ***2003 to 2004***

Provided technical planning assistance to company clients for new construction, redevelopment, condominium conversion, affordable housing, subdivisions, comprehensive planning and future land use map changes.

Senior Planner, The City of Key West, FL ***2000 to 2003***

Interpreted and administered land development regulations. Authored technical analysis and recommendation reports for affordable housing, conditional uses, development plans, easements, ROGO beneficial use allocations, transient units & license transfers, subdivisions, vacations of public property, and variances.

Community Development Director, Village of Princeville, IL ***1998 to 2000***

Coordinated development of the Village's Future Land Use Map. Developed a business enhancement loan subsidy program with TIF funds, created a community development assistance program revolving loan fund, and created a volunteer program of 200 individuals. Developed the \$2 million Princeville Heritage Center.

Peace Corps Fellow, Western Illinois University, Macomb, IL ***1997 to 1999***

Collaborated on the writing of community and development program assessment reports. Performed strategic planning and visioning sessions for community planning processes.

Peace Corps Volunteer, Nandi District, Kenya ***1995 to 1997***

Established working relationships between the community, government, nongovernmental organizations and The Peace Corps. Solicited and won grant funds for 50 small-scale reforestation, income generation and education projects.

Physical Science Lab Technician, US Geological Survey, Denver, CO ***1994 to 1995***

Collaborated on the development of a paleo-environmental indicator database for Yucca Mountain Nevada Nuclear Repository Site.

EDUCATION

- Graduate Certificate, Community Development, Western Illinois University, 2002
- Master of Science, Regional Planning & Community Development, Western Illinois University, 2001
- Business Retention & Expansion, Illinois Institute for Rural Affairs, Macomb, Illinois, 1998
- Conflict Resolution, Illinois Institute for Rural Affairs, Macomb, Illinois, 1997
- Certificate, Community Development, CHP International, Naivasha, Kenya 1995
- Bachelor of Science, Geology, University of Colorado, Denver, 1994



Overview

Mr. Fuentes has over ten years of structural engineering experience. During this time, he has been involved in all aspects of a project from traditional design, bid, build to structural rehabilitation. He has worked on a variety of rehabilitation project types including spalling repairs, carbon fiber strengthening, and post-tension strengthening/repairs.

An integral part of a successful rehabilitation project is working together with the specialty repair contractor. Intricate coordination between the design engineer, delegated shoring engineer, and the repair contractor is necessary to arrive at a constructible and cost effective solution. This collaboration often times results in a reduced project schedule and reduced inconvenience to users.

Mr. Fuentes is able to provide rehabilitation projects with innovative and cost effective solutions through his intimate knowledge of building materials and construction methods; working meticulously with the contractor through all the stages of a project's life-cycle to deliver projects on time and under budget.

Education

B.S. Civil Eng., 2000
B.S. Architectural Eng., 2000
University of Miami
Cum Laude

Memberships

American Society of Civil Engineers (ASCE)
American Institute of Steel Construction (AISC)
American Concrete Institute (ACI)
Florida Structural Engineers Association (FSEA)-
So FL Chapter President

Registration

Professional Engineer
Florida # 62426
Structural Engineer
Illinois #081006736
LEED AP BD+C

Project Experience

Helen Mar Condominium Rehabilitation, Miami Beach, Florida – Project Manager and Engineer of Record responsible for compiling the specifications and repair documents for condominium built in 1932. The structure required balconies to be replaced and repair numerous spalls throughout the façade of the building



Helen Mar Annex Condominium Rehabilitation, Miami Beach, Florida – Project Manager and Engineer of Record responsible for compiling the specifications and repair documents for condominium built in 1953. The structure required minor slab/beam spall repairs and replacement of corroded columns.

Waterfront Market Rehabilitation, Key West, Florida – Project Manager and Engineer of Record responsible for compiling the specifications and repair documents for the rehabilitation of existing structure. Repair addressed the delaminations located throughout the building. Owner replaced door and windows as part of the repair.



Piano Shop Rehabilitation, Key West, Florida – Project Manager and Engineer of Record responsible for compiling the specifications and repair documents for the rehabilitation of existing structure. Repair addressed the extensive spalling of the tie beam. Due to the extensive nature of the spalling determined it would be cheaper to replace the tie beam in lieu of repair. This concept required shoring design to support the roof during the tie beam replacement.



Design/Build Geiger Creek Bridge Rehabilitation, Monroe County, Florida – Project Manager and Engineer of Record responsible for compiling the specifications and repair documents for the rehabilitation of existing bridge structure. Repair addressed the extensive spalling of bridge deck, bents and beams. Project offered the unique opportunity for collaboration between contractor (SPS), design engineer, and researchers (University of Miami).

Brickell East Repair, Miami, Florida – Project engineer responsible for compiling the specifications and repair documents for the structure. Repair addressed the extensive spalling of the garage retaining walls, pool, floor, balconies and overhead slab. Project required coordination/sequencing with the contractor and delegated shoring engineer.

One Metro Center, Tampa, Florida – Project engineer responsible for compiling the specifications and repair documents for the parking structure. Parking structure had water intrusion problems causing severe concrete spalling in the slab and precast prestressed joist system.

701 Brickell Parking Garage Rehabilitation, Miami, Florida – Project engineer responsible for compiling the repair specifications and repair documents for the structural repair. Repair required the replacement of corroded post-tensioned strands and anchors throughout the parking garage slabs and beams.

777 Brickell Parking Garage Rehabilitation, Miami, Florida – Project engineer responsible for compiling the repair specifications and repair documents for the structural repair. Repair required the replacement of corroded post-tensioned strands and anchors throughout the parking garage slabs and beams.

Innerhost Building Structural Strengthening, Doral, Florida – Project engineer responsible for compiling the repair documents for the structural strengthening. Project required the upgrade of the existing prestressed precast concrete joist system to support twice its original design live load. Several strengthening options were considered for the upgrade and it was determined the best option for strengthening was carbon fiber reinforcement.

JIM BOUQUET, P.E., CPESC

Senior Environmental Engineer

Academic Background

Bachelor of Science, Civil Engineering, Iowa State University, 1980

Specialized Professional Competence

Mr. Bouquet has over 31 years of experience in civil engineering, environmental consulting and construction. He provides senior level design and management for environmental construction and remediation projects including site improvements, soil and ground water remediation, regulatory permit renewals and compliance, and ground water recovery and treatment system operation. He has designed and managed Brownfields remediation and building demolition projects to support site redevelopment, including environmental clean-up, storage tank removals, asbestos, lead and PCB caulking abatement, reuse/recycling of demolition materials and site restoration. Mr. Bouquet has over 18 years' experience with solid waste landfills and transfer stations including operations manual preparation, permitting, bid specification development, construction project management and construction quality assurance (soils and geosynthetics). He provides regulatory compliance support to both public and private sector clients including Spill Prevention, Control, and Countermeasures (SPCC) plans, Multi-Sector General Permits and storm water pollution prevention plans (SWPPP), integrated contingency plans and above ground storage tank permitting. He is a licensed Professional Engineer in five states and a Certified Professional in Erosion and Sediment Control (CPESC).

Recent Relevant Project Experience

➤ Solid Waste Compliance

Project Manager for regulatory compliance and site improvement projects for multiple solid waste related facilities: He is responsible for Multi-Sector General Permit compliance including storm water monitoring, SWPPP, SPCC plan and operations manual preparation for construction and demolition debris (CDD) processing, transfer station and equipment maintenance facilities. Mr. Bouquet prepares reports required by operating permits including annual waste characterization, surface water and site discharge monitoring, and vector, litter and odor control plan updates. He manages the design, permitting and construction oversight for site improvement projects to enhance facility efficiency. These projects include storm water management and filtration, pavement widening and replacement, container storage area expansion, single stream waste handling area addition and residual CDD removal and replacement with an impervious working pad.

➤ Brownfields Projects

Principal Engineer for multiple Brownfields funded investigation and remediation projects of former industrial, commercial and public structures: Mr. Bouquet develops and evaluates remediation alternatives and prepares cost estimates for Engineering Evaluation/Cost Analysis (EE/CAs) and Analysis of Brownfields Clean-up Alternatives (ABCAs). He prepares project designs, specifications and work plans for remediation of hazardous wastes, asbestos, impacted soil and groundwater; building demolition; and, site restoration and reuse.

➤ Solid and Hazardous Waste Landfills

Engineer of Record responsible for the investigation, design, permitting, construction quality assurance (CQA) and regulatory compliance of solid and hazardous waste landfills: Mr. Bouquet has performed landfill pre-design investigations including cap thickness studies, HELP modeling and the use of alternative materials (tire shreds, sludge amended vegetative layer). He has been responsible for the preparation of design plans, technical specifications and bidding documents. He provides construction project management on landfill expansion, closure and active landfill gas extraction projects, and manages/performs on-site CQA services including Resident Project Representative, geosynthetics installation inspection and soil testing. He has practical experience in the operations and maintenance of ground water recovery and treatment, leachate collection and wetland treatment systems.

➤ Environmental Site Assessments

Senior level management and peer review of Phase I and II Environmental Site Assessments (ESAs): Mr. Bouquet is responsible for the completion of ESAs ranging from small commercial structures to 700,000 acre tracts of forestland. Phase I ESAs are performed as defined by the ASTM International (ASTM) Standard E 1527-05, Standard Practice for Environmental Site Assessments: Phase I



Environmental Site Assessment Process and in compliance with the All Appropriate Inquiry (AAI) Rule.

➤ **Construction Project Management and Administration**

Provides construction project management and contract administration services for a wide-range of environmental and civil engineering projects including remediation, demolition, asbestos abatement and new construction: Mr. Bouquet manages projects from the bidding phase, through contractor selection, construction and project closeout. He conducts project meetings, public hearings, liaison between owner, contractor and regulators, etc. He prepares project close out documentation including summary report, record drawings, laboratory test results and disposal manifests for submittal to regulatory agencies.

➤ **Water Supply Permitting**

Prepares applications for spring water certification and significant groundwater well permits for commercial groundwater production wells: These applications include meeting with State representatives to develop a clear understanding of individual state requirements and using a team concept to incorporate hydrogeologic data and reports, prepare facility layout drawings, develop operations manuals and prepare the application submittal package.

➤ **Hazardous Waste Closure**

Prepares certification reports for the closeout of hazardous waste storage areas and associated generator numbers: Mr. Bouquet conducts storage area inspections with State regulatory officials, provides recommendations for clean-up as required, tracks and assembles waste shipment manifests, and prepares and certifies (as a Professional Engineer) the close-out report for submittal to the State or EPA. To facilitate the closeout of a former dry cleaner, he was responsible for the design and implementation of a sub-slab vapor extraction system.

➤ **Erosion and Sediment Control**

As a Certified Professional in Erosion and Sediment Control (CPESC), prepares erosion and sediment control (ESC) plans for projects ranging from landfill construction, site development and facility demolition: Mr. Bouquet conducts periodic ESC inspections as required by the respective permit, including providing recommendations to the contractor to improve/comply with project requirements, and preparing required reports to responsible state and local agencies.

➤ **Asbestos Abatement**

As an asbestos consultant and abatement, has provided the full-range of asbestos inspection, design and abatement for over 25 years: Facilities/structures addressed by Mr. Bouquet include industrial, commercial, public and residential. He has unique experience working with architects to coordinate the abatement activity into the overall facility renovation plans.

Professional Certifications and Training

Registration

- Licensed Professional Engineer in six states (FL- P.E. 74283, also ME, MA, MD, OK, NH).

Certifications

- Certified Professional in Erosion and Sediment Control (CPESC),
➤ Construction Quality Assurance (CQA),
➤ Geosynthetics CQA (GRI-GCI),
➤ Asbestos Inspector and Design Consultant (Maine).

Training

- Asbestos abatement supervisor (Tufts University),
➤ Asbestos abatement designer, inspector and management planner,
➤ Lead abatement designer (Georgia Tech), and
➤ OSHA 1910.120 hazardous waste operations.





SANDRA WALTERS

President

ACADEMIC BACKGROUND

Masters, Marine Affairs, RSMAS, University of Miami, FL, 1983
B.S., Animal Behavior and Marine Biology, University of California, Davis, CA, 1974

SPECIALIZED PROFESSIONAL COMPETENCE

Ms. Walters has more than 30 years of professional experience in Florida. She is qualified as an Expert Witness in Florida administrative hearings and court proceedings; has conducted and supervised environmental studies, and developed avoidance and mitigation plans, in all South Florida submerged and upland habitats; has successfully permitted projects ranging from single family homes to major roadway projects, working with all regulatory agencies; has extensive experience in design and implementation of public outreach programs and review and development of comprehensive plans; and has represented clients successfully with many agencies and government boards. She serves on the South Florida Regional Planning Council, appointed by governors Bush and Crist; serves on EPA's Water Quality Steering Committee for the Florida Keys; and served from 2000 to 2004 as a Governor's appointee on Florida's Acquisition and Restoration Council, which oversees purchase and management of State conservation lands.

REPRESENTATIVE PROFESSIONAL EXPERIENCE

Principal, SWC (Sandra Walters Consultants, Inc.), Monroe, Dade, Broward & Lee County offices, 1996-present

Provide consulting services to both public- and private-sector clients in areas of ecological/environmental and land use planning and permitting, including habitat evaluation, mitigation and contamination assessment and remediation; public involvement and outreach; and community and government liaison.

HABITAT EVALUATIONS AND PERMITTING

- **Mallory Dock Maintenance Dredge, City of Key West**
Principal in charge of successful acquisition of all permit modifications to add Mallory Dock to Navy Key West Harbor dredging project, including collection of all submerged habitat data, coordination with dredging company and environmental monitoring contractor, acquisition of EPA approval for use of offshore disposal site, and provision of Quality Assurance services onboard dredging vessel.
- **City of Key West Stormwater System**
Assisted City to come into compliance with ERP requirements for already-completed and future maintenance work of stormwater system, including developing impact assessment and mitigation plan with 5.6 acres of wetland restoration and enhancement, planting of and colonization of mangroves and seagrasses, and creation of hydrologic connection to enhance 131 acres of wetlands and cause significant water-quality improvements, providing enough mitigation credit to bring entire City stormwater system under permit and exempt from future permitting.
- **Submerged Habitat Study and Sediment Analysis, Key West Harbor and Vicinity**
Conduct survey of submerged habitats in and around Key West Harbor. Divers collected field data from 50, randomly selected sites. This data was then collated into maps

showing general distribution of habitats in area, along with underwater photographs. Data was compared with other sites throughout Florida Keys, to assess habitat quality in relation to shipping activities in Harbor. Supervise collection of sediment samples in and near harbor following approved DEP protocol, transmit to State certified laboratory for testing, prepare report summarizing findings.

- **Key West Mooring Field Seagrass Monitoring Project**
Conducted seagrass monitoring project at Key West Mooring Field that investigates potential shading impacts from boats, including project design, photographic documentation of stations over time, collection of seagrass density and shoot count data, and report preparation including data analysis and final summary report with recommendations.
- **S. Roosevelt Seawall Repair Seagrass Monitoring, Key West**
Supervised assessment and documentation of seagrasses in vicinity of seawall undergoing repairs, including field data collection and photography, update of CAD files delineating seagrass line, measurement of seagrass impacts in project area for mitigation purposes, and report preparation.
- **Smathers Beach Seagrass Mitigation Monitoring, Key West**
Conducted field monitoring of seagrass mitigation project for City of Key West. Roles included field personnel establishing monitoring sites, collecting required data, supervising surveyor, assisting with preparation of monitoring reports, and providing local liaison with City and base of operation for work.
- **Jewfish Creek Bridge/US Highway 1 Project, Florida Keys**
Member of design-build team in charge of environmental compliance for final design and construction of 65-foot-high bridge over Jewfish Creek and new roadway from North Key Largo to just south of Dade County line, including training of onsite personnel regarding avoidance of listed species; coordination with agencies for permit modifications; assessment of preconstruction environmental conditions; and continuous work with project engineer and contractor to assure all environmental permit conditions are met during four-year project. Work included mapping seagrasses along project corridor.
- **Wetland Delineation and Impact Avoidance for Cudjoe Central Wastewater Project, Florida Keys**
Principal in charge of conducting wetland jurisdictional determinations and data collection to assist design engineer in wetland avoidance and minimization for new central wastewater system in Lower Florida Keys. Work included field data collection and mapping, preparation of figures utilizing GIS programming, and preparation of report detailing findings and making recommendations for alternative locations for pump stations and other project elements that would avoid wetland impacts.
- **Residential Redevelopment Project in Florida Keys**
Served as project manager for all aspects of environmental planning and ERPs for 99-slip marina serving 92-unit redevelopment project called Marlin Bay Yacht Club, including supervision of all field data collection and preparation of benthic assessments and avoidance and minimization plans, supervision of ERP application preparation and submittal and all responses to requests for additional information, work with DEP to acquire net



positive public benefit exception to State submerged land lease restriction, and presentations to Governor and Cabinet regarding lease rule provisions and final lease adoption. Permit and lease issued in only 9 months from application.

- **Electric Transmission Line Environmental Compliance Monitoring, Key Haven to Big Coppitt Key, Florida Keys**
Conducted DEP and USACE permit conditions environmental compliance monitoring for installation of new electric tie-line poles in wetland and submerged habitats, including documenting pre-construction conditions, onsite inspections, and long-term monitoring to document post-construction recovery.
- **Stormwater Filter Marsh, City of Naples, Collier County**
Principal in charge of wetland jurisdictional determination, habitat evaluation, and listed species survey; development of impact assessment and mitigation plan; and general assistance with preparing and processing environmental resource permit (ERP) applications with DEP and US Army Corps of Engineers (USACE) for creation of filter marsh to provide treatment to stormwater presently being pumped untreated into Naples Bay.
- **Port Everglades Master Plan Update, Broward County**
Principal in charge of all natural systems data collection and analysis and permitting assessments for five-year master plan update, and assisted with adoption of plan into County Comprehensive Plan.
- **Tree Obstruction Report, Hollywood-Ft. Lauderdale International Airport, Broward County**
Principal in charge of tree obstruction survey for entire airport and clear zones, including field assessment of all trees identified as exceeding height limits, GIS mapping of tree locations, and preparation of a plan for tree removal, relocation or trimming.
- **Environmental Impact Study & Permitting, Hollywood-Ft. Lauderdale Airport Runway Extension, Broward County**
Principal in charge of fulfillment of all NEPA requirements including listed species impact assessment and wetland delineation. Acquired concurrence from all resource agencies on jurisdictional lines and UMAM scores for all wetlands affected by one or more project alternatives, prepared approved National Marine Fisheries Service (NMFS) and U.S. Fish & Wildlife Service (USFWS) EFH and Biological assessments, prepared all DEIS and FEIS text, responded to agency and public questions, and continue to participate in environmental resource permitting process.
- **Herbert Hoover Dike Culverts 1 and 1A Replacement Project, Glades County, FL**
Served as SWC principal-in-charge for all start-up of environmental compliance scope for \$47 million project to replace two 10-foot culverts through the Herbert Hoover Dike near Lake Okeechobee. Work included preparation of Stormwater Pollution Protection Plan (SWPPP) and NPDES notification; development of Environmental Protection Plan; permitting of dewatering plan; development of boating Maintenance of Traffic (MOT) plan; contractor training regarding environmental compliance criteria, including development and printing of waterproof field compliance handbook; turbidity monitoring and reporting, including

staff training to meet State permit criteria and work supervision; monitoring of listed species, including West Indian manatees; and preparation and processing of required reports. All plans and reports received U.S. Army Corps of Engineers approval.

- **Utility Corridor, Okeechobee, Hillsborough and Miami-Dade counties**
Principal in charge of wetland data collection and jurisdictional delineation for utility corridor, utilizing both federal and State wetland delineation methodologies, including extensive habitat characterization, mapping using sub-foot-accuracy Trimble GPS equipment, and daily downloading and transmitting of data to central processing facility. Also prepared EFH Assessment meeting NMFS requirements for South Dade County segment, including cumulative and secondary impacts analyses.
- **FDOT Dist. 6 Construction Phase Communication Services**
Project manager for serving as liaison with public for all FDOT construction projects in Monroe County. Fulltime public information specialist is providing services for Key West North Roosevelt Boulevard project.
- **FDOT Dist. 6 Design Phase Public Information Services**
Public information officer for design-level projects in Florida Keys. Project locations included Grassy Key, Marathon, Big Pine Key, Cudjoe Key, Upper Sugarloaf Key, Stock Island, and Key West. Services have included preparation and mailing of project information letters and news releases, holding public meetings, and preparing public information summaries.
- **FDOT Dist. 6 PD&E Studies, Lower Matecumbe Key, Big Coppitt Key, and Sombrero Beach**
Provided public involvement, planning and landscape architecture services for three Florida Keys PD&E studies, all of which had full public support at final public hearings.
- **Key West-Stock Island US Highway 1 Corridor Study, Monroe County**
Provided public outreach services, including coordination with affected businesses and other interested parties, preparing and distributing informational materials and news releases, and hosting a well-attended planning charrette.

Vice President & Manager of Environmental and Permitting Division, 1994-1996

H.J. Ross Associates, Inc., Coral Gables, FL

- **US Highway 1 South Project, from Key Largo to Florida City**
Consultant Project Manager to assist FDOT Dist. 6 in permitting for expansion of US Highway 1. Permits were required from U.S. Coast Guard, SFWMD, and USACE, and coordination with Dade County DERM. Work included preparation of permit applications; creating CADD generated permit sketches; responding to information sufficiency reviews (including extensive evaluation of potential secondary impacts); supervising field investigations and mitigation (including mangrove, seagrass, and freshwater emergent habitats); public information; and coordinating with many commenting agencies.





JILL BETH COHEN

Senior Planner & Landscape Architect

ACADEMIC BACKGROUND

Bachelor of Landscape Architecture, State University of New York, College of Environmental Science and Forestry, Syracuse, NY

Bachelor of Science, Environmental Studies, Syracuse University, NY

SPECIALIZED PROFESSIONAL COMPETENCE

Ms. Cohen is a Registered Landscape Architect (RLA), Certified Planner (AICP) and LEED AP with more than 30 years of professional experience focused on planning, urban design, landscape architecture and sustainable design. Her professional experience includes working closely with municipalities, institutional and private clients on projects involving planning, site planning, landscape architecture, land use, variances, rezoning, platting, processing and permitting, due diligence and documentation. Currently, Ms. Cohen's focus is on sustainability and revitalization projects and providing proactive, responsive and personalized service including attention to detail to provide quality projects. Ms. Cohen is a senior associate with SWC and also has her own consulting business.

REPRESENTATIVE PROFESSIONAL EXPERIENCE

Senior Planner and Landscape Architect, SWC, 2010-present Hollywood and Miami offices, FL

Conduct land use planning and permitting analyses and prepare site and landscape plans; prepare and process land use permit applications, coordinating with local and State government agencies and officials; supervise other staff and provide quality assurance review; conduct LEED AP reviews; provide planning and site inspection services to local governments.

➤ **Tree Obstruction Survey, Hollywood-Ft. Lauderdale International Airport, Broward County**

In charge of tree obstruction survey and report for entire airport property. Work includes field data collection and preparation of report including a detailed spreadsheet with tree specifications and recommendations for trimming or removal, aerial figures showing all tree locations, and a photo exhibit.

President, jbc planning and design, 2009-present Weston, FL

➤ **US Highway 1 Landscape Plan, City of Marathon**

Prepared detailed landscaping plan, including construction drawings, for area along US Highway 1 in Marathon.

➤ **Estada at Monterra**

Landscape architect and planner for Phase I Model Homes and Sales Trailer in Estada Development, including detailed landscape and site planning submittals and processing through City of Cooper City.

➤ **Calvary Chapel Church**

Landscape architect for expansion of modular classrooms for Church's Campus in Plantation and expansion of playground for Church's Main Campus in Fort Lauderdale. Services included preparation of detailed landscape and irrigation plans and processing through cities of Fort Lauderdale and Plantation.

➤ **Exotech**

Landscape architect for expansion of warehouse building. Preparation of detailed landscape, tree salvage and mitigation plans for processing through City of Pompano Beach.

➤ **Miramar DRC Plan Review & Inspections**

Project manager, planning and landscape architectural reviewer providing plan review services for City of Miramar as cost-recovery consultant since 1998. Initially, Ms. Cohen began providing development review committee (DRC) reviews for landscape architecture with community services department. Landscape data chart which is still in use today for development reviews was first initiated under this contract. Since that time, City has expanded scope of services to include reviews with Planning & Zoning Department as cost-recovery consultant. These fast-paced tasks included DRC services for residential, commercial and industrial sites throughout City. Working closely with staff to meet quick turnaround times, Ms. Cohen provides the following project reviews to meet needs of this growing municipality—site plan, master plan, platting plan, landscape plan, and traffic plans. Ms. Cohen also is currently providing landscape reviews and inspections for the City.



➤ **Miramar Master Park Plan**

Planner for updated City's Master Park Plan involving significant research to update existing data. Existing and future recreational demand and needs through year 2020 were outlined in report, with current update in process through to year 2030. Additional information prepared for this project included demographics, geographic information systems (GIS) maps, agency coordination, public workshops and analysis for park linkage studies.

Associate, Planning Supervisor and Project Manager, Miller Legg, 1997-2009
Pembroke Pines, FL

Worked with residential, commercial, and redevelopment projects. Cost-recovery Development Review Committee (DRC) consultant for planning, platting and landscaping; Planner; Landscape architect; LEED AP and company 'Champion' for Redevelopment and Sustainable Design.

➤ **Monterra Development (Waldrep Parcel)**

Prior to preparing detailed neighborhood design for Estada Development, Ms. Cohen was project landscape architect and planner for this 526-acre parcel which is one of last large remaining tracts of vacant unincorporated land in southwest Broward County. Project involved development of residential community including multi-family, townhomes, and single family units, commercial parcels and associated project amenities. Planning services included preparation of design guidelines for development, rezoning, platting, plat note amendment and delegation requests, site plan preparation, submittal and processing.

➤ **City of Lauderdale Lakes C-13 Southeastern, Western Greenway, and Pedestrian Bridge**

Design of FDOT LAP-funded one-mile greenway along southern C-13 canal bank from SR 7 to Florida Turnpike. Project is part of overall Greenway Trail System for Broward County including two municipalities, larger portion is in City of Lauderdale Lakes and remaining portion is in City of Oakland Park. Proposed Greenway connects to pedestrian bridge linking it to existing City park, City Hall and the Park Lakes Elementary School. Services included landscape architecture, environmental permitting and SFWMD Canal ROW permitting, variances and waivers.

➤ **Dade-Collier Cypress Recreation Area**

Served as project manager, landscape architect and planner for 1,600-acre passive/active park located on southern portion of Dade-Collier Training and Transition (TNT) Airport which is managed by Aviation Department. Proposed 1,600-acre site owned by Miami-Dade County is located in Collier County and client for project was the Miami-Dade Parks & Recreation Department. First phase included a Land Use Plan amendment through Collier County for conservation and outdoor recreation park to balance preservation of existing natural resources such as cypress heads, tree islands, and prairies with recreational amenities such as trails for hiking, mountain biking and riding OHVs (Off-Highway Vehicles). Extensive research, justification and coordination for environmentally sensitive areas provided balance with proposed site active uses within the flight patterns on TNT Airport.

➤ **Marina Mile Park of Commerce**

Project planner and designer for 18-acre industrial/office project that included planning, site planning, platting and landscape architecture design services. Additional services included corresponding plat and site plan reviews, included FAA, State and federal review and processing for location within flight pattern of Fort Lauderdale Airport, as well as non-vehicular line (NVAL) and Plat Note Amendments and Vacationing of Easements. Site was originally designed for office building and warehouses and received site plan approval in 2005. In 2007, decision was made to design project to achieve LEED Certification. In keeping with this sustainable practice, project included showcase of created wetlands and series of naturalized habitats which was tied into the plaza design in front of new building. Initial design intent was to conceptually represent State of Florida, as viewed from fourth floor of corporate offices. The project was designed as showcase anticipating Gold LEED Certification.

➤ **Sample Road Streetscape**

Project manager and landscape architect for planting and hardscape design of four-lane divided roadway in Broward County. Design incorporated existing trees and palms and established plant and paver palette theme for future roadways within City of Coconut Creek. In addition to landscape, irrigation and hardscape designs, grant preparation services were provided as part of this project. *Award: Broward Beautiful Third Place for Roadway/Swale Beautification, Broward County, 2004.*





MICHELLE (SHELLI) TALLACKSEN

Senior Project Manager

Academic Background

Master of Science, Biology (Marine Ecology), Old Dominion University, Norfolk Virginia, 2003

Associate of Applied Science (Medical Technology), Thomas Nelson Community College, Hampton, Virginia, 1997

Bachelor of Arts (Anthropology), University of Illinois, Champaign-Urbana, Illinois, 1992

Specialized Professional Competence

Ms. Tallacksen is an accomplished and knowledgeable researcher and project manager with extensive experience in Florida coastal habitats. She is particularly skilled in designing and implementing ecological data collection programs, including mapping of resources using sub-meter-accuracy GPS, analyzing and presenting resulting data using state-of-the-art GIS software, and communicating results effectively to agencies and the public. Her in-water experience, including scientific diving and boating certifications, prepare her for both supervising and participating in all aspects of coastal environmental data collection. In addition, she has direct field and laboratory experience with water quality monitoring, phytoplankton ecology, and microbiological identification. Ms. Braynard is currently serving as adjunct faculty at Florida Keys Community College, teaching marine data collection class.

Representative Professional Experience

Senior Project Manager, SWC, August 2009-present Monroe, Dade, Broward and Lee County offices, FL

Serve as manager of various ecological, land use and public involvement services for public- and private-sector clients, with responsibilities including data collection and analysis, report writing, and oversight of compliance timetables and budgets.

➤ **Tarpon Pier Replacement Project, City of Key West**

In charge of environmental data collection, and development and implementation of impact assessment and mitigation plan, for replacement of existing City pier in Garrison Bight.

➤ **Key West Mooring Field Pilot Project, Monroe County**

Was in charge of data collection, analysis and report preparation for moored vessels around Key West Mooring Field as part of County and State mooring field pilot project.

➤ **FKAA, Wetland Mapping for Central Wastewater Project, Florida Keys Aqueduct Authority, Florida Keys**

Data collection to assist design engineer in wetland avoidance and minimization for new central waste-water system in Lower Florida Keys.

➤ **Walker's Island Maintenance Dredge Environmental Resource Permit, Monroe County**

Project manager for acquisition of environmental resource permits for maintenance dredging of entrance channel and boat basin, including design of comprehensive mitigation plan resulting in regional environmental enhancement, coordination with Florida Keys National Marine Sanctuary, Florida Fish and Wildlife Conservation Commission and U.S. Coast Guard, and processing of application with permitting agencies. Prepared extensive graphics to illustrate project

boundaries and other details, designed public information program regarding seagrass restoration that is part of proposed mitigation.

➤ **SR 710/Beeline Expressway PD&E Study, FDOT District Four, 2011-present**

Conducted GIS analysis of future existing land use categories in five governmental jurisdictions through which project runs, develop common future and existing land use categories for entire project corridor, prepare corridor maps for planning and secondary impacts reports.

➤ **FDOT District 6 Public Information Contract for Projects in Design Phase, Monroe County**

Provided graphics services for preparing newsletters for public information mailers including figures that show specific locations of projects, participate in meetings and prepare meeting summaries.

➤ **Improvements to Atlantic Boulevard and Access to Glynn Archer and Gerald Adams Schools, City of Key West**

Provided graphics services to prepare newsletters including figures that show specific locations of projects, assisted with field verification of wetland species being affected by one corridor.

➤ **Environmental Site Assessments, Monroe County**

Conducted site visits, interviews, and historic research for Phase I ESAs to identify potential or existing environmental contamination liabilities per US EPA standards. Site surveys include definition of chemical residues within structures; identification of possible asbestos containing building materials; inventory of hazardous substances stored or used on site; and assessment of mold and mildew or other indoor air quality parameters. Preparation of complete reports, utilizing Oculus for online research of Florida Storage Tank and Petroleum Contamination Monitoring databases. Production of site maps, contamination and storage tank maps, and historic aerial graphics for ESA reports.

➤ **Fort Lauderdale International Airport Runway Expansion, Broward County**

Conducted site visit, data collection, preparation and submittal of US Army Corps of Engineers (USACE) forms to acquire federal jurisdictional determinations for wetlands affected by south runway expansion in relation to Rapanos guidelines.

➤ **Port Everglades Master Plan Update**

Part of consultant team responsible for all environmental aspects of master plan update, including research regarding any existing contamination issues and whether they would affect projected land uses at Port, along with all wetland, submerged land and listed species issues. The master plan update itself is nearing completion, at which



time SWC will assist in implementing the plan into the Broward County Comprehensive Plan.

Adjunct Instructor, Florida Keys Community College, 2009-present
Teaching course in marine data collection.

Manager of Lower Keys Damage Assessment, Restoration and Resource Protection (DARRP) Team, Florida Keys National Marine Sanctuary (FKNMS) through Florida Department of Environmental Protection, August 2006-September 2009, Key West, FL

Supervised and managed four employees to respond to vessel groundings and natural resource damage events, conducted biological assessments and prepared restoration plans and DARRP case management documents. Reviewed planning documents and permit applications and prepared recommendations on consistency of activities conducted within FKNMS Lower Region with FKNMS Management Plan and State environmental protection policies. Insured that damage assessment, restoration and monitoring plans were coordinated and consistent with federal, state and local regulations and management plans. Coordinated and provided technical and logistical field support for research, monitoring, and restoration projects within FKNMS. Assisted Sanctuary management with evaluating and resolving Sanctuary resource management issues and provided reports of monitoring findings to management and scientific community. Served as liaison with other State, local, and federal agencies regarding development and implementation of interagency agreements, response protocols, and civil penalty schedules for vessel groundings and oil spills within FKNMS. Prepared and administered State of FL portion of DARRP budget in accordance with FKNMS Annual Operating Plan.

Marine Research Associate & Florida Keys Tidal Restoration Project Manager, Florida Fish and Wildlife Conservation Commission, Fish & Wildlife Research Institute, January 2005-July 2006, Marathon, FL

Coordinated and managed all recreational mail surveys and monitoring, wrote public summary statements, and developed harvest estimates for recreational sector. Participated in team-based fishery and ecosystem research focusing on spiny lobster within and adjacent to the FKNMS, as well as Biscayne National Park and Buck Island Reef National Monument in St. Croix, USVI. Assisted in design and implementation of projects to study distribution, abundance, size structure, growth, fecundity, and other life history attributes of spiny lobsters using both above- and under-water scientific sampling methods. Analyzed data using advanced statistical techniques to determine trends and statistical significance and maintained archival databases using QA/QC methods. Prepared presentations, reports, and peer-reviewed manuscripts of study results for journals, FWC and other management commissions, and scientific meetings. Led and participated as member of research teams in field sampling, and prepared and helped coordinate logistics of field sampling activities. Participated in maintenance and operation of field equipment

and vessels. Managed FTE and OPS employees and coordinated with inter-agency scientists to complete water quality monitoring, hardbottom habitat assessment, seagrass assessment, benthic sediment and invertebrate sampling for FKTR project. Conducted field instrument calibration, operation and maintenance for FKTR. Designed and maintained relational data entry databases using Microsoft Access and performed data analyses using statistical methods. Organized and maintained project records including QA/QC, instrument maintenance, data, and reports. Generated monthly data submissions, semiannual baseline data reports, and final data reports using Microsoft products, ArcView, and EcoWatch.

Marine Research Assistant, Florida Fish and Wildlife Conservation Commission, Fish & Wildlife Research Institute, January 2003-December 2004, Marathon, FL

Assisted original project primary investigator (PI) in designing and implementing a multifaceted monitoring project (FKTR), including creation of a monitoring plan and quality manual in accordance with EPA standards. Performed data entry for various field projects and recreational lobster fisher mail survey returns. Participated in database maintenance, field research and sampling, laboratory sample analysis, and maintenance, operation, and trailering of FWRI vessels.

Certifications, Training and Memberships

- Certified SSI Open Water SCUBA diver (@500 total dives, 450 total scientific dives) since 2000
- Certified NAUI Divemaster since 2010
- Certified SSI Nitrox diver since 2004
- FDEP Scientific Diver 2008-2009
- NOAA Scientific Diver 2006-2008
- Certified AAUS Diver 2003-2006
- Certified YMCA SCUBA Lifesaving and Accident Management (SLAM)
- Certified Motorboat Operator (MOCC), US Dept. of Interior



Paul Catledge, P.E.
Senior Project Engineer, Miami Office/Laboratory

FORMAL EDUCATION:

Louisiana State University
Bachelor of Science - Civil
Engineering

**PROFESSIONAL
REGISTRATIONS:**

Registered Professional Engineer,
State of Florida #68448

Troxler Nuclear Gauge

OSHA Safety Hazardous
Materials Certificate

**PROFESSIONAL
AFFILIATIONS:**

Current President of the
Florida Engineering Society -
Broward Chapter

American Society of Civil
Engineers

REFERENCES:

W.F. McCain & Associates, Inc.
1171 19th Street
Vero Beach, Florida 32960
Mr. Bill McCain
772-770-1093

City of Miami Beach - Public
Works Department, Engineering
Division
1700 Convention Center Drive
Miami Beach, Florida 33139
Mr. Hermes Diaz, P.E.
305-673-7080

Miami-Dade Aviation Department
Environmental Engineering
Division
P.O. Box 592075
Miami, Florida 33139
Mr. Joaquin Menendez
305-876-0799

PROFESSIONAL EXPERIENCE:

Mr. Catledge serves as a Senior Project Engineer for the Miami Dade County office/laboratory location of Nutting Engineers of Florida, Inc. Mr. Catledge has eight years experience in the civil/geotechnical engineering field with 5 years with Nutting Engineers of Florida, Inc. His responsibilities include preliminary site studies, geotechnical explorations to determine site preparation, feasibility studies for land development, foundation design analysis and recommendations, supervision and training of drill crews, workload analysis, observation of piling installations, pile load tests, classification of in-situ soils, and field/laboratory materials testing.

Mr. Catledge's experience includes construction layout, collection of field data, layout of structures, buildings and roads and ensuring quality of work being performed in the field by maintaining correspondence between the office and the contractor. He has provided supervision and monitored installation of deep foundation piles as well as conducted soil tests and compressive strength testing for many projects throughout Miami-Dade and Monroe County.

Mr. Catledge also serves as project manager for numerous government projects including the Key West Solid Waste Transfer Station, Broward County Board of County Commissioners and Miami-Dade County Public Works and school districts of Broward and Miami-Dade Counties.

PROJECT EXPERIENCE:

- City of Key West Improvement Projects (Five Sites):
 - Malory Square T-Pier, Zero Duval Seawall, Ferry Terminal Dock E, Turbo Road Floating, Tarpon Pier
- Florida Keys Community College, Student Housing Facility, Key West
- City of Key West Truman Plaza Annex, 6410 5th Street, Key West
- Island City Flying Service, 3471 South Roosevelt Boulevard, Key West
- Key Largo Water Treatment District, Basin G and Basin H, Key Largo
- Village Hall/Fire Station #21, 86800 Overseas Highway, Islamorada
- Medley Landfill, 9350 NW 89th Street, Medley
- City of Key Largo Waste Water Treatment Facility Expansion and Upgrade
- City of Key West Class 1 Solid Waste Transfer Station, Rockland Key, MM 9
- Various projects for the Miami Dade County Board of Commissioners: Qualification Based Contract (since 2000)- Environmental Assessments, Geotechnical Exploration and Engineering, Material Testing, Structural Inspection
 - Sunny Isles Fire Station #10, Dolphin Station # 68, Cutler Bay Station #34
 - North Terminal Development Program, MIA Taxiway Settlement Investigations
 - Drainage studies at Amerifirst Park, Zunjik Estates, Sleepy Hollow, Nikis, Sunset Cove, Century Garden, Bibiana
 - Multiple W/WTPs
 - Multiple Park and Recreation projects
- Port of Miami, New Canopies at Terminal B and C (Grace & Naeem Uddin)
- Port of Miami, Rip Rap Replacement Project (Miami Dade Public Works)
- Port of Miami, Entrance Road, Biscayne Boulevard (Transamerica Construction Company)
- GSA Federal Office Building (FBI), Miramar
- Miami Children's Hospital- Bed Tower, Central Energy Plant, Parking Garage, Miami
- Miami-Dade International Airport: Terminal D, North Terminal Development Program 7, Taxiway E and F re-surfacing, taxi lane settlement investigation, fuel hydrant repair at Gate H, multiple center light repair(s)
- City of Miami Beach Police Station, City of Miami Beach
- Norwood Oeffler Water Treatment Plant, City of North Miami Beach
- Joseph Caleb Courthouse and Parking Garage, Miami
- Sunset Harbor Garage and Retail, Miami Beach
- City of Miami Beach Infrastructure Improvement Projects: Neighborhood #8E Sunset Islands 1 and 2, Hibiscus and Palm Islands Project, Neighborhood #9 City Center Bicycle Project

Richard C. Wohlfarth, P.E.

Principal/Director of Engineering

FORMAL EDUCATION:

University of Florida,
Gainesville, Florida

Bachelor of Science,
Civil Engineering

PROFESSIONAL REGISTRATIONS:

Registered Engineer-
State of Florida #50858

Registered Building Inspector-
State of Florida BN #3580

SBCCI #6528

ACI Level 1 #991175

UBCI

PROFESSIONAL AFFILIATIONS:

Florida Engineering Society
*Past Chapter President

National Society of Professional
Engineers

REFERENCES:

Florida Keys Aqueduct Authority
1100 Kennedy Drive
Key West, Florida
Mr. Ray Shimokubo, P.E.
305-296-2454

CH2M HILL
6410 5th Street, Suite 2A
Key West, Florida 33043
Mr. Andrew Smyth
305-294-1645

W.F. McCain & Associates, Inc.
1171 19th Street
Vero Beach, Florida 32960
Mr. Bill McCain
772-770-1093

PROFESSIONAL EXPERIENCE:

Mr. Wohlfarth, P.E. is the Director of the Engineering Department which includes professional and technical personnel. He also has overall responsibility for the Special Inspection, Construction Materials Testing and Geotechnical Engineering Divisions where he directs training, quality system review and personnel evaluations. His responsibilities include report review, signing and sealing geotechnical engineering, structural inspection and laboratory testing reports for the company, providing contract negotiation and administration, budget estimating and project management.

Mr. Wohlfarth has 23 years of experience in various aspects of geotechnical engineering which include determining feasibility of site development, foundation design analysis and recommendations, providing engineering evaluation for bridge and roadway construction, pavement design for roadways, roadway subgrade stabilization by geotextiles and other means, design of shoring systems for utility trenches and other deep excavations, dewatering methodology for trench and other excavations and backfill procedures, setting up and monitoring pile load tests and providing value engineering for foundations.

PROJECT EXPERIENCE:

- Dozens of Florida Keys Aqueduct Authority projects, not limited to:
 - Proposed expansion of the Overseas Highway, Key Largo Water Treatment District Basins G and H, Key Largo Pump Station and WWTP, Ocean Reef Distribution System Improvements (Phase II), Vacuum/Pump Station, Regional Waste Water Collection System Improvements/Upgrades on Cudjoe Key, Summerland Key and Sugarloaf Key
- W/WWTP projects include: Clewiston WTP, Boca Raton Reverse Osmosis Facility @ Glades Road WTP, Dania Beach WWTP @ Stirling Road, Deerfield Beach WWTP, Pembroke Pines WTP Improvements @ Johnson Street, Sawgrass WTP @ Sawgrass Corporate Parkway, City of Coral Springs WTP @ 85th Avenue, Layton WWTP Expansion, Florida City WTP High Service Pump Station, Key Largo WTP @ MM 105.5, FKA Robert Dean WTP @ Florida City, Duck Key WTP, North Key Largo Advanced Treatment and Wastewater Reuse project @ Ocean Reed Club
- Proposed pump assisted drainage wells and underground storm water pump station, Duval Street, City of Key West
- Schooner Wharf Building Addition, City of Key West
- Barge Drilling for multiple transmission lines for Florida Keys Electric
- George Street Drainage Basin Improvement, City of Key West
- Key Largo Water Treatment District proposed vacuum sewer line- approximately MM103.5 to MM105.5
- Multiple 2M gallon storage tanks throughout the Keys
- Calusa Campground and Collection Water System, approximately MM 101, Key Largo
- Class 1 Solid Waste Transfer Station, Rockland Key, MM 9, City of Key West
- Truman Plaza Annex, City of Key West
- Miami Beach City Center Right of Way Infrastructure Improvements
- Various projects for the Miami Dade County Board of Commissioners: Qualification Based Contract (since 2000) - Environmental Assessments, Geotechnical Exploration and Engineering, Material Testing, Structural Inspections
 - Miami International Airport Water Distribution System Infrastructure Improvements
 - South District Wastewater Treatment Plant HLD Upgrades
 - SW 76th Avenue Drainage Improvements, Miami
 - Drainage studies at Amerifirst Park, Zunjik Estates, Sleepy Hollow, Nikis, Sunset Cove, Century Garden, Bibiana

Michael D. Avirom, P.L.S.

President



Experience Highlights

*Over 39 years of
land surveying experience*

Education

*Miami-Dade Junior College
Associate in Arts*

*Florida Atlantic University
Bachelor of Business
Administration*

*Palm Beach Junior College
Associate in Science
Land Surveying*

Professional Registrations

*Professional Land Surveyor
Florida*

Professional Affiliations

*Florida Society of Professional
Land Surveyors*

*National Society of Professional
Land Surveyors*

Michael Avirom established Avirom & Associates, Inc. in 1981. Mr. Avirom's surveying expertise in boundary, aerial mapping, topography, jurisdictional wetlands, bathymetric, condominium surveys, expert witness testimony and construction layout distinguish him as a respected professional in the industry.

Project Experience

Village of Palm Springs Route-of-line survey, base mapping of existing utilities above and below ground on over 100 linear feet of roadways for engineer's design, legal descriptions for easement acquisitions

Highland Beach Mapped town limits for the engineering design and construction of underground utilities

City of West Palm Beach Flagler Drive from SE 6th Street to SE 10th Street. Route-of-line survey, base mapping of existing utilities above and below ground for engineer's design. Provided soundings across Intracoastal and prepared submerged land easements for proposed forcemain

City of Boca Raton, Downtown Promenade Base mapping of all existing above ground improvements, utilities, right-of-ways, and easements for engineer's design

Glades Road Water Treatment Plant, City of Boca Raton Provided support for ground and topographic aerial mapping. Located existing above ground evidence of utility for engineering design

Florida Power & Light Company Statewide submerged land easements, obtained platted and sectional monumentation utilizing GPS to prepare approximately 200 survey sketches and legal descriptions for submerged land easements along the entire East Coast of Florida from Miami to Fernandina Beach and the west coast from Tampa south to Naples. Coordinated with divers for the location of underwater cables

Boca Raton Hotel & Beach Club Boundary, topographic and mean high water line surveys, prepared easements and submerged land acquisitions. Provided location of above and below ground utilities for engineering design

Florida Power & Light Company, Levee-Midway 500 kV transmission line survey - 140 mile corridor, survey for right-of-way acquisition, GPS control, legal descriptions, profiles, cross sections and construction layout, St. Lucie, Martin, Palm Beach, Broward, and Dade Counties, Florida

Oceanfront Properties in Boca Raton, Highland Beach, Delray Beach and Hillsboro Beach Boundary, topographic, mean high water line, erosion control line, coastal construction control line surveys and DEP permit surveys



Keith Chee-A-Tow, P.L.S.

Project Surveyor



Experience Highlights

*Over 38 years of
land surveying experience*

*More than 18 years survey
experience in the Bahamas*

Education

*University of South Florida
BA, Marketing
1974*

Professional Registrations

*Professional Land Surveyor
Florida*

Professional Affiliations

*Florida Society of Professional
Land Surveyors*

*National Society of Professional
Land Surveyors*

*National Society of Geographic
and Land Information Systems*

Keith Chee-A-Tow has over 38 years of land surveying experience. Mr. Chee-A-Tow is experienced in boundary, topographic, hydrographic and GPS surveys, jurisdictional wetlands, aerial mapping and expert witness testimony.

Project Experience

Ocean Key House, City of Key West Prepared submerged land lease survey in accord with the Florida Department of Environmental Protection SLER 0950 Survey Requirements procedure for the resort's "Variable Floating Docks Configuration" comprised of 20,245 square feet of sovereign lands

Little Palm Island, Hawk Channel Established boundaries for beach re-nourishment and relinquishing of uplands based on Florida Department of Environmental Protection Disclaimer on lands lost to avulsion. Prepared exhibit to revise the limits of lands to be relinquished to the State of Florida, and to acquire formerly submerged lands to our client based on a historical mean high water line

Rockland Key, Monroe County Boundary and topographic survey including establishment of a monumented witness line for mean high water meander line including jurisdictional wetlands mapping to facilitate mitigation on a 34 acre site. The legal description was a complex combination of various parent tracts less-outs and add-ins, with the Project Surveyor providing a review of the title commitment's description and adding encumbrances to the survey

Summerland Key, Cudjoe Key, Upper and Lower Sugarloaf Key, Ramrod Key, Little Torch Key, Big Pine Key and No Name Key (all right-of-ways) Aerial mapping and topographic route survey for Florida Keys Aqueduct Authority. Design of sewer and water systems. Easements for excess property submitted to FDOT District 6.

Wisteria Island, Key West Established witness monuments by use of GPS for mean high water survey; mapped areas of mangrove wetlands; upland topographic survey (1' contours) on a 23 acre island and hydrographic survey of 125 acre submerged land lease (2' contours)

Bahama Village, Key West, Florida Topographic route-of-line survey throughout Bahama Village from Duval Street southerly to Front Street, including the Truman Annex. Elevations were based on NGVD 1929, with benchmarks established at every intersection and mid-point of blocks. Sufficient boundary evidence was recovered to spatially place the right-of-way and platted lot lines within the digital AutoCAD file

Monroe County Airport Marathon (MTH) Establish horizontal coordinates, relative to the North American Datum of 1983 (NAD 83) and vertical elevations, relative to the North American Vertical Datum of 1988 (NAVD 88) at the thresholds of Runway 7 and Runway 25 and also the lens face of the two sets of the Precision Approach Path Indicator (PAPI) lights at both ends of the runways

Monroe County Watson Boulevard Bridge Boundary and Topographic route-of-line survey for the restoration of the existing bridge along Watson Boulevard, a County road with drawings submitted and reviewed by FDOT District 6.

Monroe County Animal Shelter Prepared sketch and descriptions for acquisition of excess lands for submittal to FDOT District 6.



Keith Chee-A-Tow, P.L.S.

Project Surveyor

Atlantis, Paradise Island, Bahamas Bathymetric survey of lagoon, channel, and ocean profiles; topographic survey of Paradise Island Resort (former hotel) for current design of Atlantis. Topographic route-of-line survey throughout Paradise Island, including the Ocean Club, old airport, sewer treatment plant, Club Land'or and Pirates' Cove



3. Key Personnel Expertise

Chen Moore and Associates and our team of subconsultants have the expertise to handle the various projects listed in the Request for Qualifications. For this contract, we have identified the following key personnel to lead the Chen Moore team. Resumes for our team members and subconsultants are located at the end of this section.



Ben Chen, Ph.D., P.E., BCEE, will be the Principal-in-Charge. Dr. Chen has over 40 years of civil and environmental engineering experience. His experience includes urban infrastructure renewal, water and wastewater treatment facilities design and construction management, facilities planning, environmental studies, utilities master planning, and rate and financial studies. He also served as assistant program manager of a design and construction program management team for Broward County North Regional WWTP expansion (\$82 million) and the world's largest Detroit Wastewater Treatment Plant with a five-year construction program budget of \$1.0 billion.

Oscar Bello, P.E., our proposed project manager, has over 13 years of experience in the planning, design, permitting, and construction management of water, wastewater, and drainage municipal projects in South Florida. Having recently managed the multi-million dollar Cudjoe Regional Wastewater Collection project and the Navy Pedestrian Bridge, Mr. Bello has extensive experience in the Keys. He is the project manager for Chen Moore and Associates' continuing services contract with the City of Key West and has been the engineer of record for approximately 43,000 LF of ROW infrastructure improvements in Miami Beach.

Having recently managed the multi-million dollar Cudjoe Regional Wastewater Collection project and the Navy Pedestrian Bridge project, Mr. Bello has extensive experience in the Keys.

Jose Acosta, P.E. will be responsible for civil engineering projects. He has over 12 years of experience and has served as the project manager and Engineer-of-Record on many similar projects for the Town of Miami Lakes and the City of Miami Gardens. He has also served in a quality control management role with the City of Miami Beach and the Village of Pinecrest. He has previously worked on water and wastewater projects throughout Miami-Dade and Broward Counties.

Michael Buick, P.E. will be a project engineer for civil engineering projects. He is a senior engineer with 10 years of experience designing water and sewer connections for municipal projects, including design calculations, running models, coordinating design with other involved disciplines, cost estimating, and preparing Basis of Design Reports. Mr. Buick has coordinated projects with numerous permit agencies throughout South Florida, including FDEP, SFWMD, US ACOE, and various County and City agencies. Mr. Buick also has extensive experience working on projects in environmentally-sensitive areas, including wetlands and coastal areas. Having recently completed work on the multi-million dollar Key West Transit Facility project, Mr. Buick is thoroughly familiar with the permitting agencies in Monroe County.

Safiya Brea, P.E., LEED AP will be a project engineer for civil engineering projects. Ms. Brea's expertise includes neighborhood improvement projects which consist of the design of roadways and sidewalks, drainage, and water and sewer infrastructure. She has designed and managed streetscape improvements, roundabouts, stormwater master plans, booster station. Her current duties include project management, GIS and Autocad Design work, Cascade modeling, sewer modeling and design, water main design, as well as report and plan preparation for several cities and counties throughout South Florida.

Jason Haeseler, P.E., will be responsible for solid waste engineering projects. Mr. Haeseler has served as project engineer and/or project manager on roadway improvements projects, including widening, resurfacing, and signalization; drainage improvements; low-pressure and gravity sewer systems; water distribution systems; landfill closures; and landfill gas collection systems. His projects have ranged in size from \$250,000 to \$47 million for clients including FDOT and city and county governments.

Jason McClair, P.E., CFM, LEED AP will be responsible for utility planning and modeling. Mr. McClair is a senior civil engineer with over 16 years of experience, which includes computer aided flow modeling for stormwater collection, water distribution, and sanitary transmission systems. He also has experience with utility infrastructure design, regulatory permitting, and geotechnical engineering. He is currently the project manager for the Fort Lauderdale-Hollywood International Airport Stormwater Master Plan Update and the Pompano Beach Stormwater Master Plan.

Peter Dueño, P.E. will serve as a project engineer on utility engineering projects. He currently serves as an associate senior engineer with Chen Moore and Associates. His expertise includes planning, pavement marking and signage, streetscape, stormwater modeling and design, water main design, permitting, and cost estimating. He played a key role in the modeling phase for the Cudjoe Regional Wastewater Collection System project and was a project engineer on the City Center and South Pointe Right of Way Improvement Projects for the City of Miami Beach. He has worked on several projects for the City of Key West.

Jennifer Smith, P.E. will serve as a project engineer on utility engineering projects. Ms. Smith's expertise includes drainage design, permitting and GIS modeling in addition to water main, sanitary sewer, and lift station design and permitting. She has provided detailed design work on the Broward County UAZ Water and Sewer Improvement Project, Stormwater Master Plan for the City of Dania Beach, drainage design for the City of Pompano Beach and the design of GIS utility atlases.

Marcus Austin, GC, LEED AP will provide construction engineering and inspection. Mr. Austin has been a senior construction services manager for neighborhood improvement projects for 12 years. Along with supervising \$35 million in construction, he has acted as a client liaison and performed contractor negotiations, inspections and construction start up for major and minor lift stations and streetscaping projects throughout South Florida. He is experienced with large transmission mains, both water and wastewater. Marcus routinely performs constructability review of CMA design plans and is excellent at finding opportunities for value engineering. He has two FDOT CPTQ certifications.

Marlon John Marlon will provide construction engineering and inspection. Mr. John has been an inspector on neighborhood improvement projects for eight years, including the multi-million dollar Broward County Neighborhood Improvement Project. He holds a Masters Degree in Construction Administration from FIU. He is thoroughly familiar with City's Standards, construction methods and project process.



Principal-in-Charge
Ben Chen, Ph.D., P.E., BCEE

Project Manager
Oscar Bello, P.E.

Support

<p>Civil Engineering Jose Acosta, P.E. Michael Buick, P.E. Safiya Brea, P.E., LEED AP</p> <p>Utility Engineering Jason McClair, P.E., CFM, LEED AP Jennifer Smith, P.E. Peter Dueño, P.E.</p> <p>Solid Waste Engineering Jason Haeseler, P.E.</p> <p>Coastal Engineering Michael P. Walther P.E., D.CE. Cliff Truitt, P.E., Ph.D., D.CE. Tem Fontaine, P.E. Walker Dawson, P.E.</p> <p>LAP Coordination Lisa Colmenares, AICP Ariel Millan, P.E. Robert Helmer, P.E., LEED® AP Ricardo A. Ayala, P.E. Luis Rodriguez, P.E.</p>	<p>Construction Engineering Inspection Marcus Austin, GC, LEED AP Marlon John</p> <p>Planning Owen Trepanier</p> <p>Structural Engineering Juan Fuentes, P.E., SE, LEED AP, BD+C</p> <p>Environmental Engineering & Planning Jim Bouquet, P.E., CPESC Sandra Walters Jill Beth Cohen Michelle Tallacksen</p> <p>Geotechnical Engineering Paul Catledge, P.E. Richard Wohlfarth, P.E.</p> <p>Survey Michael D. Avirom, P.L.S. Keith Chee-A-Tow, P.L.S.</p>
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Subconsultants

Coastal Technology Corporation
BCC Engineering
Trepanier & Associates
United Engineering
Sandra Walters Consultants (SWC)
Nutting Engineers of Florida
Avirom

4. Relevant Experience of the Firm

With over 12 licensed professional engineers, including 6 LEED accredited professionals, and highly skilled technical design staff, the Chen Moore and Associates team has the capabilities to address the smallest to the most challenging civil, utility, solid waste, and environmental engineering tasks required by the City.

Civil Engineering

Chen Moore and Associates has extensive experience in the areas of paving, grading and drainage design ranging from large-scale county, municipal and airport master planning and modeling to project-level neighborhood and site specific detailed design. Our experience encompasses all phases of project development, including conceptual planning, stormwater modeling, detailed design and analysis, and government agency permitting, and project construction.

CMA has extensive experience in the design of improvements to existing roadways. Our engineers are well versed in the latest Florida Department of Transportation (FDOT) and Federal Highway Administration (FHWA) Design Standards. Chen Moore and Associates understands that successful urban environments are composed of a number of elements that must be seamlessly integrated. Development must be pedestrian friendly and encourage street level activity. Vehicular circulation must be carefully orchestrated to calm traffic and provide a variety of discrete parking solutions that maintain the urban fabric and promote density. Historic structures must be preserved and civic spaces revived. Identity and clarity should be enhanced with streetscape improvements, attractive landscaping, and wayfinding systems



Utility Engineering

Chen Moore and Associates has worked with clients to provide a wide range of water and sewer consulting engineering services including large-scale master planning and modeling, existing system assessments, design and rehabilitation, and

new site development design, permitting and construction. Our experience includes the planning, design, permitting and construction of over 80 miles of watermain, 50 miles of gravity sewer, 20 miles of force main, over 20 pump stations (ranging from 100 gpm to 5,000 gpm), five large diameter mains in FDOT rights of way (20" to 48" force main) and 10 directional drills.

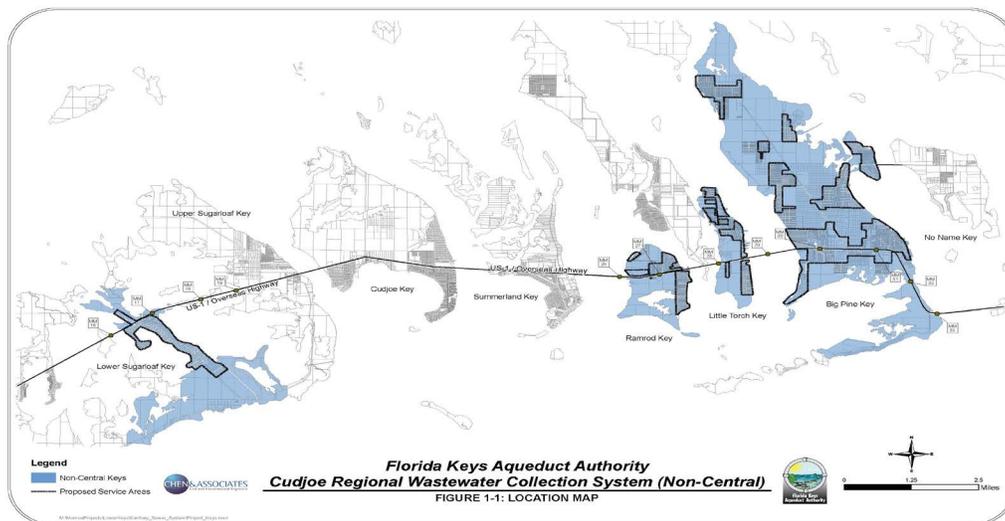
The following projects highlight Chen Moore and Associates' and our subconsultants' comprehensive civil, solid waste, coastal and environmental engineering services.

Cudjoe Regional Wastewater Collection Project - Preliminary Design Report, Monroe County, FL

Chen Moore and Associates was tasked with preparing the Preliminary Design Report (PDR) for the Cudjoe Regional Wastewater Collection System (Non-Central) Keys. The Non-Central Keys collection system includes: Lower Sugarloaf Key, Ramrod Key, Little Torch Key and Big Pine Key. CMA was responsible for designing the sanitary sewer collection system that will convey sewage from these keys to a transmission force main and/or master lift station located along US 1/Overseas Highway.

Recognizing that the economic health of Monroe County and its municipalities relies largely on the environmental health of a unique marine ecosystem, the County's Year 2010 Comprehensive Plan mandated that nutrient loading levels be reduced in the marine ecosystem of the Florida Keys. In June of 2000, the Sanitary Wastewater Master Plan (Master Plan) was finalized with the goal of eliminating approximately 23,000 private on-site wastewater systems. Through interlocal agreement, Monroe County has requested that the Florida Keys Aqueduct Authority (FKAA) design, build, and operate County-owned infrastructure on behalf of the citizens in the master-plan prescribed service areas.

The final design will be a conveyance system that will combine various wastewater collection system technologies in order to connect as many on-site wastewater systems as possible for the lowest overall cost. The combined strategic utilization of proper planning and technology, extending to the greatest number of connections for the best value, is an approach developed by the FKAA through its years of experience in the water and wastewater utility business.



Client

Florida Keys Aqueduct Authority
Donald Hubbs, P.E.
(305) 295-2142

Design Services Fee

\$1.5 million

Construction Completed

N/A

Project Cost

N/A

Contractor Awarded Project

N/A

Design/Build Transfer Station, Key West, FL

Chen Moore and Associates was the lead design consultant for the design/build project of the new Key West Solid Waste Transfer Station. The project consisted of development of approximately four acres of vacant land in Rockland Key, Monroe County. The transfer station included a 14,000 SF transfer building with truck tunnels, a 1,850 SF corrugated cardboard recycling building, 2,480 SF office and maintenance building, scale house with truck scale platforms and inspection area, leachate storage tank, and retaining walls. The state-of-the-art transfer station replaces the aging Southernmost Waste to Energy facility on Stock Island, providing the capacity to handle the city's needs for at least the next 20 to 30 years.

The overall design of the Solid Waste Transfer Station in Key West required retaining walls along the proposed roadway/driveway. As such, design plans were prepared for a cast in place reinforced concrete to handle WB-67 truck loads.



Client

DN Higgins
Matthew DeLuca
(941) 465-8358

Design Services Fee

\$855,193

Construction Completed

2009

Project Cost

\$7.9 million

Contractor Awarded Project

DN Higgins
Matthew DeLuca
(941) 465-8358



Navy Pedestrian Bridge at Key West's Truman Annex, Key West, FL

Chen Moore and Associates provided engineering services during design and construction of the navy pedestrian bridge. These activities include technical assistance, shop drawings, submittal review, field observation, and meeting attendance. The purpose of the bridge is to provide Navy personnel access over the proposed road to Fort Zachary Taylor.

The bridge was placed in April 2010 after an eight-month hiatus due to railroad artifacts discovered during the excavation of the piers. This pedestrian bridge will ultimately serve as the future gateway to Ft. Zachary State Park in Key West. Chen Moore and Associates provided third party engineering design review and construction engineering observation services.



Client

City of Key West
Doug Bradshaw
(305) 809-3792

Design Services Fee

\$46,830

Construction Completed

2009

Project Cost

\$1.2 million

Contractor Awarded Project

Ebsary Foundation Company
Matthew J. Shiring, P.E.
(305) 325-0530 ext. 108

MS4 Permit & Stormwater Utility Fee, Marathon, FL

Chen Moore and Associates contracted with City of Marathon for the preparation of:

- Stormwater Utility Fee and Ordinance
- Roadway/Drainage Inventory Map, and
- MS4 Notice of Intent

The Stormwater Utility Fee component of the project included a large GIS component. The impervious area of a sample set of residential parcels was digitized using aerial interpretation in GIS. An Equivalent Residential Unit (ERU) analysis was completed by calculating the average impervious area per residential parcel. A weighted Stormwater Utility Fee was determined for each parcel based on ERUs. The list of parcels with fees was submitted to the tax authority. Chen Moore and Associates continues to do yearly re-assessments of the tax roll to account for changes in property ownership, new developments and appeals by residents.

Chen Moore and Associates was also responsible for the contract administration, which involved



permitting for the DEP MS4 Permit. Part of the effort required obtaining the locations of drainage structures, which there were very few of in the City. The team collected GPS coordinates of structures in the FDOT Right of Way from FDOT. These coordinates were collected by a contractor during the annual system cleaning program. This resulted in a low-cost option for obtaining the necessary data.

Chen Moore and Associates also conducted a roadway inventory, responsible for all data collection,

assessing asphalt conditions, mapping street signs and writing the roadway conditions report. During this part of the project, every street was visited to collect field data for the GIS. The pavement condition was assessed using a methodology similar to AASHTO Standards. The roads were segmented to allow for more control over reporting. The final report prioritized roads to be rehabilitated or repaired, the types of repairs required and the estimated costs projected for 5 years. Each road sign was photographed using a GPS camera developed by Chen, which captured GPS coordinates along with the images. This allowed for a GIS map to be created for the City with hyperlinks to the sign photos. It also allowed for better photo management essential for accurate reporting. This low cost methodology used the latest technical developments of its time to produce the high quality report.

Client

City of Marathon
Zully Hemeyer
(305) 289-5009

Design Services Fee

\$69,000

Construction Completed

N/A

Project Cost

N/A

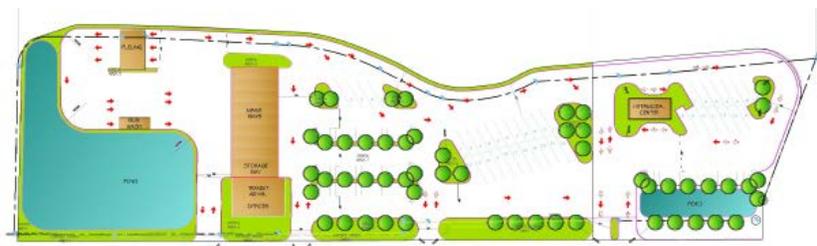
Contractor Awarded Project

N/A

Public Transportation Facility, Key West, FL

Chen Moore and Associates is the prime consultant responsible for the planning, design, permitting, design/build package preparation and overseeing construction for the City of Key West Department of Transportation Public Transportation Facility. The new facility serves as the transportation operations and administration building for the City of Key West and the primary terminal/transfer station for lower keys shuttle bus service, which serves Marathon to Key West. It provides parking for public transportation customers and employees.

Unique to this project is its proximity (immediately adjacent) to the City owned closed landfill and the project sites previous use as a solid waste to energy and solid waste transfer station operation. As a result of these elements, extensive coordination was necessary throughout the project to ensure closure of the adjacent landfill, appropriate demolition of existing onsite elements including lead based paint and asbestos testing, and testing to ensure proposed development would meet and/or exceed regulatory requirements. As part of the project, coordination was also necessary with the Federal Transit Administration to demonstrate compliance with National Environmental Policy Act requirements to secure project funding and with SFWMD to allow the development of the proposed project.



Client

Key West Department of Transportation
Myra Wittenberg
(305) 292-3918

Design Services Fee

\$950,000

Construction Completed

ITB issued August 2012.

Project Cost

N/A

Contractor Awarded Project

N/A



City Center Right of Way Improvement Project, Miami Beach, FL

Chen Moore and Associates is the prime consultant and is responsible for providing planning, design, permitting, preparation of construction documents, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the City Center neighborhood of Miami Beach. The project encompasses approximately 24,000 LF of ROW infrastructure improvements including: water main replacements; sewer improvements, stormwater drainage improvements; paving & grading; roadway/traffic improvements (streets, sidewalks, curb and gutter, drainage, traffic control devices including striping, signing and channelization); streetscaping and landscaping enhancements; decorative, landscape and roadway lighting improvements; and roadway reconstruction. Additionally, due to existing listed contaminated sites within the proximity of the right of way improvements, environmental coordination including contaminated sites analysis and consideration of the radius of influence was necessary for coordinating dewatering operations. Due to the existing mixed residential and commercial environment of this neighborhood, special design efforts were made to incorporate walkable community elements including meeting all ADA requirements, providing street furniture, providing bicycle paths, upgrading sidewalks, incorporating specialty treatments at crosswalks, landscaping improvements with specialized tree wells to provide a walkable surface and bulb outs to increase pedestrian friendliness and safety. This project also required extensive coordination with the public, adjacent CRAs, historic districts and various regulatory agencies.



As part of the proposed stormwater and drainage services, extensive analysis was conducted utilizing ICPR Modeling and GIS to meet and/or exceed required stormwater Level of Services standards. The proposed stormwater design included the introduction of catch basins and stormwater piping to effectively collect and route the stormwater to 16 drainage gravity wells with overflow outfall connections to Biscayne Bay. Due to the environmental sensitivity of Biscayne Bay design and implementation of water quality treatment measures was an important consideration and design factor of the system prior to outfall to the Bay and was closely coordinated with regulatory agencies during the permitting process. This project is currently under construction with CMA staff supporting Miami Beach staff through construction administration services and on-site field observation through CMA staff RPR services.

Client

City of Miami Beach
Maria Hernandez
(305) 673-7071

Design Services Fee

\$2.8 million

Construction Completed

Currently under construction. Sep. 2012 anticipated completion date

Project Cost

\$21.2 million

Contractor Awarded Project

M. Vila & Associates, Inc.
Miguel Vila
(305) 821-1226



South Pointe Phase III/IV/V - Right of Way Improvement Project, Miami Beach, FL

Chen Moore and Associates is the prime consultant and is responsible for providing planning, design, permitting, preparation of construction documents, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the South



Pointe III/IV/V neighborhood of Miami Beach. The project encompasses approximately 19,000 LF of ROW infrastructure improvements including water main replacements, stormwater drainage improvements, paving & grading, streetscaping enhancements, landscaping improvements, lighting improvements, and roadway reconstruction. Additionally, due to existing listed contaminated sites within the proximity of the right of way improvements, environmental coordination including contaminated sites analysis and consideration of the radius of influence was necessary for coordinating dewatering operations. Due to the existing mixed residential and commercial environment of this neighborhood, special design efforts were made to incorporate walkable community elements including meeting all ADA requirements, providing street furniture, providing bicycle paths, upgrading sidewalks, incorporating specialty treatments at crosswalks, landscaping improvements with specialized tree wells to provide a walkable surface and bulb outs to increase pedestrian friendliness and safety. This project also required extensive coordination with the public, adjacent CRAs, historic districts and various regulatory agencies.

Client

City of Miami Beach
Carla Dixon
(305) 673-7071

Design Services Fee

\$1.9 million

Construction Completed

Currently under construction. Nov. 2012 anticipated completion date.

Project Cost

\$10.5 million

Contractor Awarded Project

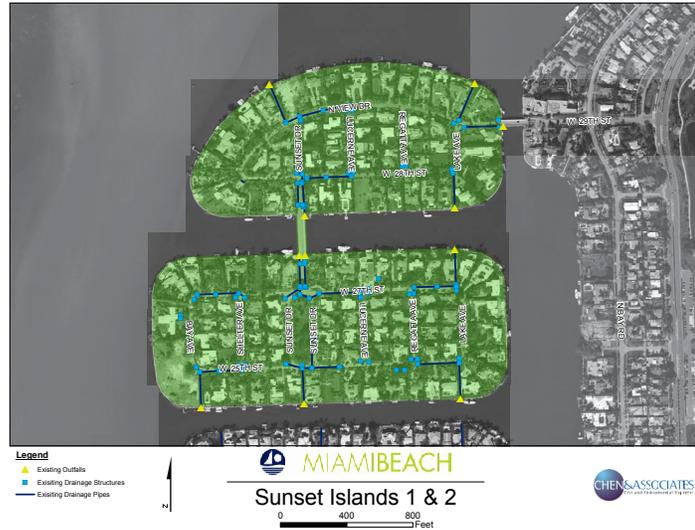
Transflorida Development Corp
Paul Cusmano
(305) 370-8055



Sunset Islands 1 & 2 Right of Way Improvements, Miami Beach, FL

Chen Moore and Associates is the prime consultant responsible for planning, design, permitting, bid and award and construction engineering and inspection services for infrastructure improvements within the public right of way areas of the Sunset Islands I & II neighborhood of Miami Beach. The project encompasses approximately 11,000 LF of ROW infrastructure improvements including water main replacements, stormwater drainage improvements, paving & grading, traffic pavement marking and signing related enhancements and roadway reconstruction. Extensive coordination with adjacent residents and with environmental agencies was necessary due to the projects environmentally sensitive location and surrounding environmental resources.

As part of the project stormwater and drainage services, extensive analysis was conducted utilizing ICPR modeling and GIS to meet and/or exceed required stormwater Level of Service standards. The proposed stormwater design included the introduction of catch basins and stormwater piping to effectively collect and route the stormwater to 11 existing outfalls to Biscayne Bay. Due to the environmental sensitivity of Biscayne



Bay design and implementation of water quality treatment measures was an important consideration and design factor of the system prior to outfall to the Bay which included utilizing exfiltration trench. Additionally, as the outfalls were existing a review and evaluation of the conditions of the outfalls was conducted and rehabilitation, upsizing and retrofitting the existing outfalls was a part of the final design. This project was closely coordinated with regulatory agencies at the outset of the project and throughout the design to ensure an expedient review and issuance of the permit.

Client

City of Miami Beach
Maria Hernandez
(305) 673-7071

Design Services Fee

\$89,831

Construction Completed

Currently under construction

Project Cost

\$5 million

Contractor Awarded Project

David Mancini and Sons
David Mancini
(305) 532-8827



Stormwater Master Planning Services

It is often necessary to model existing and/or proposed conditions as part of a drainage project during the design phase of the project. CMA is familiar with various modeling programs and software. Typical software and programs implemented include:

- AutoCAD Civil 3D
- ICPR by Streamline Technologies
- StormCAD
- Microsoft Excel
- SWMM
- Cascade
- GIS analysis and tools

Fort Lauderdale-Hollywood International Airport Stormwater Master Plan Update

Under Phase 1 of this project, Chen Moore and Associates updated the FLL Stormwater Master Plan (SWMP), which was completed by a previous consultant in 2001. CMA reviewed the data and analysis



from all prior reports, converted the existing stormwater model from SWMM to ICPR, and updated the ICPR model with any new system data and new projects provided by BCAD. CMA updated the existing conditions stormwater model and created the future conditions stormwater model to assess alternative drainage improvements needed to achieve required and desired Levels of Service (LOS) for various storm events. The stormwater model was used to run rainfall scenarios for the comparison of pre-development (existing) conditions versus post-

development (future) conditions from a water quantity (runoff) and water quality (storage) perspective. The stormwater model was used to analyze the performance of the existing Primary Stormwater Management System (PSMS).

The purpose of Phase 2 is to provide routine updates to the stormwater model(s) based on progress design drawings of the South Runway Expansion Project and the associated future development, including but not limited to, terminal and gate area improvements. The existing stormwater model created during Phase 1 includes design assumptions based on preliminary planning documents for the South Runway Expansion Project. The updates to the stormwater model during Phase 2 will be based on progress design submittals for the South Runway Expansion Project and approved design plans for other new development at FLL, which will enhance the accuracy of the stormwater model. Phase 2 for this project includes the following work items:

Client

Broward County Aviation Department
Carlos Hernandez
(954) 359-2343

Design Services Fee

\$786,000

Construction Completed

N/A

Project Cost

Approximately \$5 million

Contractor Awarded Project

N/A

Lauderdale-By-The-Sea Stormwater Master Plan

Chen Moore and Associates completed the Stormwater Master Plan for the Town of Lauderdale-by-the-Sea. This project included gathering all existing information available from previous permits, reports and studies and confirming their accuracy for use in the existing conditions model, updating the digital stormwater atlas in GIS, utilizing LIDAR data to create a surface model of the Town, collecting resident complaints and preparing the existing conditions model with Interconnected Pond Routing (ICPR) Software. After the existing conditions model was completed, Chen Moore and Associates identified areas with flooding issues and recommended stormwater improvements. A proposed conditions model was prepared with ICPR and the results was presented to the public and Town Commissioners.

Client

Town of Lauderdale By The Sea
Don Prince
(954) 776-0576

Design Services Fee

\$89,000

Construction Completed

N/A

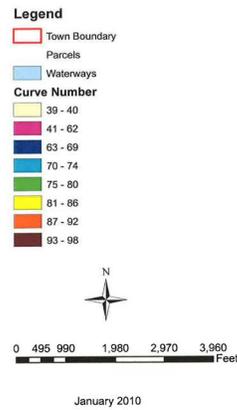
Project Cost

N/A

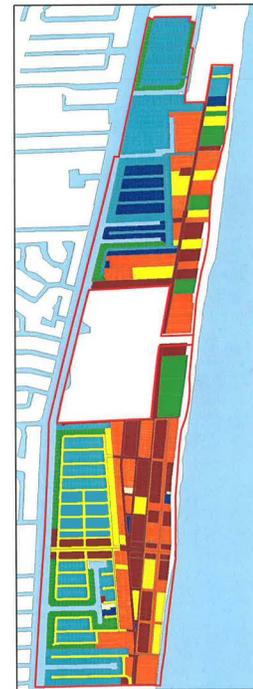
Contractor Awarded Project

N/A

Exhibit 9
Parcel Analysis
Stormwater Curve Number



CHEN & ASSOCIATES
Civil and Environmental Engineers



Stormwater Master Plan Update, Hollywood, FL

Chen Moore and Associates reviewed the analysis from the previous Stormwater Master Plan for the City of Hollywood, which was completed in 2004, and prepared the update to the Plan with new topographic and system data along with recent drainage improvements projects. Chen Moore and Associates also updated the ICPR stormwater model for the entire City limits to allow the City to assess the performance of various alternatives for drainage system improvements. Chen Moore and Associates used the stormwater model to estimate whether the system improvements would meet level-of-service criteria for various storm events. During the completion of this project, Chen Moore and Associates was responsible for analyzing the performance of various system improvement alternatives, providing system improvement recommendations with associated cost considerations, and providing design guidelines for new development.

Client

City of Hollywood
Hugo Davalos, P.E.
(954) 921-3930

Design Services Fee

\$103,222

Construction Completed

N/A

Project Cost

N/A

Contractor Awarded Project

N/A

Drainage System Extension



Solid Waste Engineering

Wastewater Treatment Plant & Biosolids Permitting, Cedar Key, FL

Chen Moore and Associates is providing professional engineering services to the Cedar Key Water & Sewer District to renew the operating permit for their 0.18 MGD extended aeration water reclamation facility, including an updated Capacity Analysis Report and Operation & Maintenance Performance Report. We are also providing professional engineering services to obtain a Biosolids Land Application Site permit on approximately 100 acres of timberland in Levy County under the State's new Biosolids rule on behalf of the District.

Central Disposal Facility – South Slope Closure, Landfill Gas Expansion & Stormwater Improvements, Brevard county, FL

This project included a partial slope closure using approximately 14 acres of geosynthetic clay liner, over 75,000 cubic yards of earth and waste fill on 3:1 slopes, improvements to the stormwater system that included piping up to 42 inches, and expansion of the existing landfill gas collection system including 44 vertical gas wells and over 4 miles of HDPE pipe up to 24" in diameter while keeping the existing system operational. While working for another firm, Jason Haeseler, P.E., a member of our proposed team, worked as the engineer's project manager and was directly responsible for the construction oversight and quality assurance. He reviewed all contractor submittals including schedules, pay applications, technical submittals, and materials testing reports. He conducted weekly on-site progress meetings with all stakeholders including the owner, contractor, subcontractors, and the landfill-gas-to-energy operator.

ACMS Class I Landfill

While working for another firm, Jason Haeseler, P.E., a member of our proposed team, worked on a portion of the permit application including prohibited wastes, financial assurance, and the operations manual. Project included permitting of new construction of a 60-acre Class I landfill cell through FDEP Southwest District.

Coastal Engineering

South Beach Parking Lot Wall Replacement and ADA Improvements, Fort Lauderdale, FL

Chen Moore and Associates provided the restoration and enhancement of the City-owned 6.5-acre “South Beach” parking lot, located along SR A1A, south of Las Olas Boulevard. The scope of work includes bringing the parking lot into ADA compliance per requirements of consent decree, replacing a deteriorating low profile wall and sidewalk approximately 2100 feet in length, replacing existing lighting with turtle-compliant fixtures, and designing additional landscaping. Chen Moore and Associates prepared the required DRC submittal, which included all required public purpose approvals, as well as a conceptual layout of a new entrance at the southern end of the parking lot. This project was a joint effort between various City departments, including the City of Fort Lauderdale Beach Community Redevelopment Agency and Parking Services.



Client

City of Fort Lauderdale
Earl Prizlee
(954) 828-6522

Design Services Fee

\$198,780

Construction Completed

Completed November 2011

Project Cost

Approximately \$5 million

Contractor Awarded Project

MBR Construction
Mike Boss
(954) 486-8404

SE 15th St Boat Launch & Marine Complex, Fort Lauderdale, FL

As part of its general civil engineering contract, Chen Moore and Associates was asked to design and permit upgrades to the parking lot located on SE 15th Street. The property covers approximately 29,000 SF and has two boat ramps, a marina and the police water unit building. The parking lot currently provides 58 parking spaces for vehicles with attached boat trailers only, one of the spaces being handicap accessible.

The scope of services includes removing the existing fixed docks and replacing them with new floating concrete docks for City use and proposing drainage and lighting upgrades to bring the lot up to City Code compliance. Chen Moore and Associates is responsible for the site layout, DRC and P&Z approvals, permitting as well as for coordinating with all other disciplines.

Client

City of Fort Lauderdale
Antoinette Butler
(954) 828-3714

Design Services Fee

\$65,944

Construction Completed

Project is out for bid.

Project Cost

N/A

Contractor Awarded Project

N/A



Subconsultants Relevant Experience

The following pages demonstrate the relevant experience of our subconsultants. Each firm specializes in a unique discipline that will complement the Chen Moore and Associates team.

HARBOR BRANCH OCEANOGRAPHIC INSTITUTE

Client: Harbor Branch Campus of Florida Atlantic University



Waterfront Facilities Investigations & Master Plan (1992):

The Harbor Branch Channel and dry storage facility is used to moor and maintain large research vessels. Coastal Tech performed above and below water investigations of over 6,000 feet of existing bulkheads and mooring structures at the Harbor

Branch basin and entrance channel. An inventory of the existing channel infrastructure was prepared and the objectives of Harbor Branch, with respect to future infrastructure needs, were identified. The infrastructure elements included: mooring/vessel maintenance, dredging, bulkheads, docks, drainage, and utilities. Coastal Tech provided conceptual design and cost estimates for repair/replacement alternatives.

Bulkheads (1994, 1998 & 2009):

Subsequent to above and below water inspections, Coastal Tech designed a 3,958 foot long deep water replacement steel sheet pile bulkhead with concrete deadmen and soil anchors to front the south side of the Harbor Branch Channel.



In 1998, Coastal Tech prepared an emergency design to modify the tieback system for the existing steel sheet pile bulkhead to allow a barge to offload a donated 5 million dollar home. The innovative design modification allowed for the steel sheet pile wall to be cut, creating a ramp for the barge. Coastal Tech completed the design within 3 days of Harbor Branch's request.



In 2009, Coastal Tech again provided above and below water investigations of approximately 6,700 linear feet of bulkheads at Harbor Branch. We established stationing at various bulkhead locations, conducted ultrasonic thickness testing, and assessed the structural capacity of the bulkheads to meet services loads based on the field investigation results and the construction plans previously prepared by Coastal Tech in 1992. Coastal Tech prepared a report summarizing field observations, ultrasonic

thickness test results, corrosion rates, provided an Opinion of Probable Costs, and assessment results including prioritized recommendations for maintenance, repair, or replacement of the bulkheads.

Key Elements

- Above & Below-water Investigations
- Bulkhead Design
- USACE / FDEP Permitting

Dates: 1992 – 1994
1998
2009 (No construction)

Design Fees: \$206,800.

Construction Cost: N/A

Contact:

Vincent Burke,
Director of Facilities
Harbor Branch Oceanographic Institute
5600 North U.S. #1
Fort Pierce FL 34946
772-465-2400 Ext. 248
vburke@hboi.edu



Enhancing Coastal Life.

SECTOR 3 BEACH RENOURISHMENT

Client: Indian River County, FL



The “*Indian River County Beach Preservation Plan Update*” recommends nourishment of the County’s critically eroded beaches including Sector 3 on the barrier island. Coastal Tech advanced and completed the project area fill design and obtained permits from Florida Department of Environmental Protection (FDEP) and

the U.S. Army Corps of Engineers (USACE) for the project in collaboration with County staff. We also gave periodic updates to the County’s Beach and Shore Preservation Advisory Committee.

Coastal Tech also provided additional environmental and geological services to fulfill requirements posed by the FDEP during their review of the Joint Coastal Permit (JCP). The environmental services entailed field investigations to yield mapping and characterization of turtle abundance and hardbottom communities fronting the proposed *Project Area*. The geological services entailed engineering and geological assessments to provide greater reliability for assurances that proposed sand fill was beach-compatible.

Construction of Phases 1 and 2 began in February 2010 and November 2010 respectively. Roughly 474,673 cubic yards of sand (about 27,900 dump truck loads) were placed during Phases 1 and 2. During each phase of construction, Coastal Tech monitored the progress of construction and checked the sand that was placed in the project area to provide reasonable assurance that it was of consistent size and color to the existing beach sand. Coastal Tech also provided administrative oversight for permit reporting compliance during the construction process. When the construction was completed, Coastal Tech prepared a post-construction monitoring report and provided the report to both state and federal agencies. Coastal Tech also reviewed the



site to determine any impacts that were made to the nearshore hardbottom as a result of the construction. The second half of Phase 2 construction began in January 2012 and included placement of about 100,000 cubic yards of sand (about 5,880 dump truck loads) within the Refuge.



Key Elements

- Beach Committee Meetings
- Preliminary Design
- Mike21 Numerical Modeling
- Final Design Plans & Specs
- FDEP Permit/ ECL Establishment
- USACE Permit/NEPA Compliance
- Construction Administration
- Post-Construction Monitoring

Dates: 2006 - 2012

Design Fees: \$954,143.

Construction Cost: \$10.1M

Contractor: Ranger
Construction
Patrick Flynn
(772) 464-6460

Contact:
James Gray, Coastal Engineer
Indian River County
1801 27th Street
Vero Beach, FL
(772) 226-1344
jgray@ircgov.com



Enhancing Coastal Life.

REACH 7 BEACH RENOURISHMENT, RESTORATION & STABILIZATION

Client: Town of Palm Beach, FL



Phase I: Coastal Tech was retained by the Town of Palm Beach to design and obtain all regulatory approvals for initial restoration of approximately 2 miles of beach within the Town south of *Sloan's Curve* including Phipps Ocean Park. Within six months, Coastal Tech performed hydrographic surveys, characterization and mapping of nearshore hardbottom biological

communities, and designed the beach fill project. Coastal Tech also evaluated the performance of the alternative beach fill designs and renourishment intervals - with and without structures (groins). The beach fill design was developed by application of a combination of cross-shore (EDUNE), wave shoaling and refraction (RCPWAVE), and shore-line change (GENESIS) numerical models. Coastal Tech concluded that the use of groins was not cost effective in the initial project.

Supplemental Environmental Impact Statement (SEIS): As part of the initial Phipps project Coastal Tech prepared the first SEIS ever completed by, or on behalf of, the Jacksonville District for a non-federal beach fill project in Florida. In January 2000, the Town made formal application to the Florida Department of Environmental Protection (FDEP) and the U.S. Army Corps of Engineers (USACE) for a *Joint Coastal Permit*. In March 2001, FDEP issued their permit for the Project. In June 2001, the USACE advised the Town that the Jacksonville District had adopted a policy under which *all* beach nourishment projects - federal and non-federal - must undergo review under the National Environmental Policy Act (NEPA) via processing of an Environmental Assessment or an Environmental Impact Statement prior to USACE permit issuance. The USACE prescribed preparation of the SEIS which was prepared by Coastal Tech.

Phase II: The Town completed initial restoration of most of the Reach 7 shoreline surrounding Phipps in May 2006 and in early 2011, partially restored dunes throughout most of the project area with a truck haul project to offset losses due to Tropical Storm Fay. The fill volume was reduced by the USACE staff below that originally proposed by the Town. The placed sand was more fine than originally proposed by the Town - as regulatory issues prompted the sand to be obtained from a secondary borrow area. The existing groins in Reaches 5 and 6 exacerbate erosion in the northern portion of Reach 7. As a result, the northern portion of sand fill placed in 2006 rapidly eroded. Consultation by Town staff with FDEP staff indicate that FDEP staff is receptive to the originally designed beach fill project – potentially including “‘permit-able’ structures which offer solutions to ‘hot spot’ situations” such as exists along the northern portion of the Phipps Ocean Park beach fill area. Coastal Tech is assisting the Town with this new effort.

Key Elements

- ☉ Sand Search
- ☉ Numerical Modeling
- ☉ Preliminary & Final Design
- ☉ Environmental compliance
- ☉ Permitting & Coordination
- ☉ *Supplemental Environmental Impact Statement*
- ☉ Mitigation Reef

Dates: 1998 – 2004 Phase I
2011 - Present Phase II

Design Fees: \$1,440,000. Phase I
\$332,971. Phase II

Construction Cost: Phase I - N/A
Phase II TBD

Contact:

Robert Weber, Coastal Coordinator
Town of Palm Beach
951 Old Okeechobee Road, Suite A
West Palm Beach, FL
(561) 838-5440
rweber@townofpalmbeach.com



Enhancing Coastal Life.

FLORIDA SYSTEM-WIDE COASTAL PARKS MANAGEMENT PLAN

Client: Florida Department of Environmental Protection - Division of Recreation & Parks



Under the umbrella of the Florida Department of Environmental Protection (FDEP), Florida's Park Service oversees 159 state parks providing resource-based recreation while preserving, protecting and restoring the state's natural and cultural resources. The diverse nature of the parks includes aquatic preserves, ornamental gardens, springs, beaches, forts, museums and lighthouses annually serving more than 17 million visitors.

Included within this diverse system of state-managed park lands are 41 parks with shorelines totaling almost 100 miles of sandy beaches. In addition to the typical management issues associated with any of the system's parks, these 41 coastal sites bring the additional challenges of on-going serious background erosion at almost 40 percent of the locations and potential catastrophic impacts associated with episodic storm events at all locations. Such erosional impacts may result in the direct loss of recreational area and critical natural habitat as well as the reduction of protective buffers against broader losses to upland facilities and infrastructure.



The Scope of Work for this project included those tasks necessary to document background conditions and issues associated with the unique coastal settings of these specific parks and to identify and summarize policy and management responses and erosion control or similar construction projects which are appropriate to mitigate the negative effects of erosion and storm vulnerability. Coastal Tech performed the following tasks:

1. Data collection review & summary including basic park statistics, erosion control history & structures and resources,
2. Needs Assessment for each park,
3. Erosion Control Alternatives for each park, and
4. Draft Reports.

A Final Management Plan was not prescribed due to lack of FDEP funding for the Project.

Key Elements

- Data Collection
- Local Park Staff Meetings
- Needs Assessment
- Conceptual Design
- GIS Database & Baseline maps

Dates: 2007-2009

Design Fees: \$318,463.

Construction Cost: N/A

Contact:

Marshall Flake

FDEP Division of Recreation & Parks

3540 Thomasville Road

Tallahassee, FL 32309

(850) 245-3104

Marshall.Flake@dep.state.fl.us



COASTAL TECH
COASTAL TECHNOLOGY CORPORATION

Enhancing Coastal Life.

CITY OF MIAMI GENERAL ENGINEERING SERVICES

Client: City of Miami – Capital Improvements Program
Client Reference: Jose Lago, PE
Phone Number: (305) 416-1252
Design Contract Fee: \$1.5 Million
Design Start Date: 2008
Design End Date: On-Going
Constructed: No
Construction Cost: N/A
Contractor: N/A
Contractor Reference: N/A



Scope of Services: BCC Engineering was selected to provide General Engineering Services for the City of Miami. Some of the assignments completed under this contract include:

- San Marco and Biscayne Island Roadway and Drainage Improvements
Design Fee: \$290,000.00
Scope of Work: San Marco Island- Roadway and Drainage improvements, including re-grading and repair of swales, roadway reconstruction, repair and replacement of all traffic and street signs. Analyze different alternative drainage designs/systems that can be used to resolve flooding issues associated with San Marco Island. The drainage improvements involved the design of a storm sewer pump station, drainage wells, two outfalls, hydrodynamic devices to improve the water quality.
Biscayne Island- Roadway and Drainage improvements, including regarding and repair of swales, roadway reconstruction, milling and resurfacing, repair and replacement of three existing outfall pipes using trenchless technology (Pipe Bursting Method), lighting design, and drainage improvements.
- Greenway Design for NW S. River Drive (NW 10th Avenue to NW 4th Street) and NW N. River Drive (NW 2nd Street to 3rd Street)
Design Fee: \$183,000.00
Scope: Beautification and roadway improvements, including change in typical sections to provide a wider sidewalk to serve as a pedestrian corridor along the Miami River with wider green areas for tree planting, construction of new ADA ramps, repair and replacement of all traffic and street signs, repair existing sidewalks, full roadway reconstruction, and the design of street lighting. The project also included all the utility coordination.
- Greenway Design for NW S. River Drive (NW 12th Ave. to NW 10th Ave.)
Design Fee: \$138,000.00
Scope: Beautification and roadway improvements, including change in typical sections to provide a wider sidewalk to serve as a pedestrian corridor along the Miami River with wider green areas for tree planting, construction of new ADA ramps, repair and replacement of all traffic and street signs, repair existing sidewalks, full roadway reconstruction, and the design of street lighting. The project also included all the utility coordination.

BCC ENGINEERING, INC.

SOUTH ROOSEVELT BLVD. (US-1) - FROM SW 64TH STREET TO SW 70TH STREET

Client: City of Key West
(Via FDOT LAP Agreement)

Contact Reference: Frank Panellas, PE

Phone Number: (305) 235-5098

Consultant: BCC Engineering Inc. is a Sub-Consultant to Sanchez Zeinali (currently Metric Engineering)

BCC Design Fee: \$ 100,000.00

Design Start Date: 2007

Design End Date: On-Going

Constructed: No

Construction Cost: Estimated \$5,000,000.00

Contractor: N/A

Contractor Reference: N/A



Scope of Work: The reconstruction of South Roosevelt Boulevard in the Florida Keys for a 4-lane undivided state road that is approximately 0.78 miles. The Typical Section will not change from the existing conditions and will include four (4), eleven (11) foot travel lanes and one eight (8) foot parking lane on the south side of the corridor. The proposed condition will include curb and gutter on both sides of the street. Therefore, runoff from the proposed improvements will flow into curb-type inlets.

Engineering Services: Design Services include a drainage design based on a 10-Year storm with duration of 1-Hr, 8-Hrs and 24-Hrs. Also the SFWMD 25-Year 72-Hrs storm was considered. The system is designed so that during anyone of these storms there will be at least one 11 foot lane at the center of the roadway left un-flooded. The drainage design included drainage calculations, hydrologic/hydraulic modeling and drainage design plans. For this project special two chamber (CDS) drainage structures were designed to provide water quality treatment before it is routed to be discharged through the proposed deep injection wells. A total of nine new injection wells in addition to the five existing wells were proposed.

BCC ENGINEERING, INC.

SR 826 (PALMETTO EXPRESSWAY) AND SR 836 (DOLPHIN EXPRESSWAY) INTERCHANGE, SECTION 5, DESIGN-BUILD PROJECT

Client: FDOT District 6
Client Reference: Ali Toghiani, PE
Phone: (305) 470 – 5343
Contract Amount: \$559 Million
Project Duration: 2010 – 2015
Contractor: Community / Condotte / deMoya Joint Venture
Contractor Reference: AJ de Moya
Phone: (305) 255-5713



Scope of Services: BCC Engineering is serving as the Prime Designer for this \$559,000,000 Design-Build Project to reconstruct the SR 826 (Palmetto Expressway) / SR 836 (Dolphin Expressway) Interchange. This Project includes the reconstruction of SR 826 from south of Flagler Street to north of NW 12th Street and SR-836 from east of NW 87th Avenue to west of 57th Avenue. The SR 826 / SR 836 Interchange is a 4-level System-to-System Interchange with direct connectors that provide for traffic movements in all directions between the two expressways. The project also includes the reconstruction of two service interchanges, the reconstruction of NW 12th Street and the realignment of the North Line Canal. The project includes 47 new bridge structures (4 Concrete Segmental Flyovers, 7 Steel Plate Girder, and 36 FIB) as well as an extensive amount of permanent and temporary walls, and sign structures.

BCC ENGINEERING, INC.

SR 826 (PALMETTO EXPRESSWAY) IMPROVEMENTS PROGRAM DESIGN-BUILD PROJECT, SECTION 2

Client: FDOT, District 6
Client Reference: Jason Chang, PE
Phone: (305) 470 – 5331
Contract Amount: \$177 Million
Project Duration: 2008 – 2012
Contractor: Condotte/deMoya
Joint Venture
Contractor Reference: Enrique Espino, PE
Phone: (305) 670-7585



Scope of Services: BCC Engineering, Inc. is the prime design firm on the \$177 Million Design-Build project for the Palmetto Expressway (SR 826) Section 2 Improvements. Project involves the widening and reconstruction of the limited access facility from South of Sunset Drive to North of Southwest 31st Street and includes the Miller Drive (SW 56th Street), SR 874 and SR 976 (Bird Road / SW 40th Street) Interchanges. The proposed improvements include the addition of one general use lane in each direction; auxiliary lanes between all interchanges; interchange improvements and, operational and safety improvements along the SR 826 mainline and ramps.

The project includes 8 new bridge structures with a total deck area of almost 200,000 ft². 4 of the structures are major steel bridges consisting of continuous steel plate girder superstructures with span lengths of up to 250 ft, and skews of 60°. The remaining 4 bridge structures, including a pedestrian overpass of the Palmetto Expressway are simply supported long span AASHTO girder structures. Maximum span length for the concrete bridges is 161 ft. and BT-78 beams were used. The project also includes over 260,000 ft² of MSE wall with heights up to 35 ft., temporary critical walls, overhead sign structures (span and cantilever), bridge mounted sign structures, and mastarm structures for new signals.

The Meadows of Key West – Historic District

Key West, Florida



Eight luxurious single family residences woven seamlessly into the fabric of the historic neighborhood known by the same name.

These eight homes belong to a community which maintains the common drive, fencing and all landscaping. Life at the Meadows is truly worry free, with all regular upkeep, from your swimming pool to roof, being scheduled and overseen for you. The Meadows offers the best of all worlds- the privacy and spaciousness of a single family home within the managed structure of condominium ownership.

Client: Robert Tracy
Contact: Robert Tracy
1514 Petronia St.
Key West
305.292.6322

Construction info unavailable





Key West Harbour Yacht Club
Stock Island, Monroe County, Florida

A full service marina on 9.86 acres of uplands and 3.58 acres of privately held bay bottom preserves and enhances the historic water related uses of the site. The development contains 100 wet slips and 475 dry stack storage spaces. The dry storage is in 3 separate architecturally pleasing boat barns measuring a total of 147,886 square feet. An 8,243 sq. ft. clubhouse provides member services. The 1,242 sq. ft. ship's store provides boating supplies for the membership. 3 workforce housing units were constructed above the ships store. Three dockside units are available for long and short term use.

Client: Yacht Clubs of America
Contact: Steeven Knight
15051 Punta Rassa Road
Fort Myers, FL 33908



Construction info unavailable



KEY WEST HARBOUR
YACHT CLUBS OF THE AMERICAS

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119 Simonton Street
Key West, Florida – Historic District

119 Simonton Street is a luxury residential community by Richard Jones Construction. It is located in the heart of Old Town Key West with wonderful views of the Waterfront and Historic Downtown.

Client: Richard Jones Construction, Inc.
Contact: Richard Jones
190 Congress Park Drive
Delray Beach, FL 33445



Construction info unavailable

Florida Department of Community Affairs DCA – Expert Witness Testimony



Trepazier & Associates, Inc. provided expert witness testimony and assistance to the DCA for the preparation of cases for pending litigation arising from actions filed against the DCA related to Florida's Areas of Critical State Concern Program. The work included providing assistance to legal staff in developing questions and responses and identifying documents in preparation for hearings.

- Florida Keys Citizen Coalition v. DCA and Monroe County; DOAH Case No. 06-2449GM
- Skeel v. DCA and Village of Islamorada; DOAH Case No. 06-2438
- Monroe County v. DCA; DCA Case No 06-OR-147

Client: State of Florida Department of Community Affairs
Contact: Charlie Gauthier
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100

Construction info unavailable



Structural Engineering

Waterfront Market Rehabilitation, Key West, Florida

United Engineering provided structural engineering services for an existing single-story structure with spalling and delaminations throughout columns and beams. Project also included replacement of existing windows and doors with impact resistant products. This project represents Mr. Fuentes' experience while at another firm.

Client

City of Key West
John Paul Castro
305.809.3803

Design Service Fee: \$13,000

Project Status: In construction.

Project Cost: \$120,000

Contractor Awarded Project

Bella Construction of Key West, Inc.
Jeremy Mosher
305.292.9888

Piano Shop Rehabilitation, Key West, Florida

United Engineering provided structural engineering services for an existing single-story structure with significant spalling and delaminations throughout the tie beam. Project required extensive shoring to support existing roof framing to accommodate repair. This project represents Mr. Fuentes' experience while at another firm.

Client

City of Key West
John Paul Castro
305.809.3803

Design Service Fee: \$6,600

Project Status: Repairs complete. Pending bid letting.

Project Cost: N/A

Contractor Awarded Project : N/A

Helen Mar Annex Condominium Rehabilitation, Miami Beach, Florida

United Engineering provided structural engineering services for an existing 2-story condominium built in 1956 with spalling repairs and column replacement at rear walkway balcony.

Client

Helen Mar Condominium Association
Abraham Levy – Royal Management Group
305.535.3575 ext. 111

Design Service Fee: \$3,000

Project Status: In construction.

Project Cost: \$10,000

Contractor Awarded Project

National Concrete Preservation, Inc.
Ryan Perez
305.546.8113

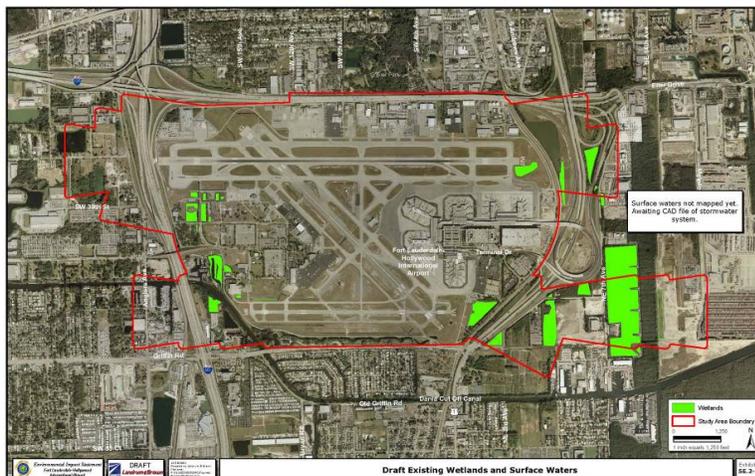


FT. LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT RUNWAY EXTENSION ENVIRONMENTAL IMPACT STATEMENT & PERMITTING

SWC (Sandra Walters Consultants, Inc.) is in charge of all environmental components of the Environmental Impact Statement (EIS) for runway expansion at the Fort Lauderdale-Hollywood International Airport, as well as quality assurance of permitting for the final, selected alternative.

SWC has successfully accomplished the following:

- ❖ participated in project kickoff and progress meetings with local government and agency officials,
- ❖ review of previous studies of affected environment,
- ❖ conducted onsite wetland, biotic communities and endangered and threatened species data collection and analysis,
- ❖ conducted wetland assessments using Florida's Uniform Wetland Assessment Method (UMAM) and acquired agency confirmation of scores,
- ❖ acquired agency wetland jurisdictional determinations,
- ❖ developed maps and figures depicting all data,
- ❖ evaluated project alternatives for environmental consequences,
- ❖ prepared mitigation plan for unavoidable wetland impacts and acquired agency concurrence,
- ❖ prepared evaluations of Essential Fish Habitat (EFH) and listed species as required by National Marine Fisheries Service,
- ❖ prepared all relevant sections of the draft and final EIS, and
- ❖ providing quality assurance reviews of environmental resource permit applications and will assist agency coordination and application processing.



CLIENT: Broward County Aviation Division
CLIENT REP: Mike Pacitto
CLIENT CONTACT INFO: Hollywood-Ft. Lauderdale Intl. Airport, 100 Aviation Blvd. Ft. Lauderdale, FL 33315, (954) 359-6103
KEY PERSONNEL: Sandra Walters, Mike Tust, Michelle Tallacksen
TOTAL FEE FOR SERVICES: \$372,000.00
SERVICES COMPLETION DATE: 2012
CONTRACTOR INFO: N/A

GENERAL EMAIL SWC@SWCINC.NET • WEBSITE WWW.SWCINC.NET
MAIN OFFICE: 6410 FIFTH STREET, SUITE 3, KEY WEST, FL 33040 • PH 305-294-1238 • FAX 305-294-2164
BRANCH OFFICES: MIAMI • HOLLYWOOD • FORT MYERS



STORMWATER COMPLIANCE City of Key West, FL

SWC (Sandra Walters Consultants, Inc.) served as environmental project manager to bring the City of Key West into compliance with environmental resource permitting requirements in regard to mangrove clearing associated with City stormwater system maintenance. The work resulted in a consent agreement adopted unanimously by both the Key West City Commission and the South Florida Water Management District (SFWMD) governing board that addressed mitigation to provide both for already-accomplished and additional immediate emergency mangrove clearing and future clearing required for maintenance of entire City stormwater system.

SWC responsibilities included:

- ❖ extensive coordination with staff of City of Key West, SFWMD, U.S. Army Corps of Engineers, Florida Department of Environmental Protection, and City-contracted engineering and hydrologic modeling consultants,
- ❖ detailed GIS mapping of already cleared and immediately needed emergency maintenance sites, to produce total impact areas,
- ❖ detailed characterization of emergency maintenance sites for development by SFWMD of functional loss scoring under Uniform Mitigation Assessment Method (UMAM),
- ❖ design of extensive mitigation plan involving restoration of 5.6 acres of wetland and enhancement at former Hawk Missile site in eastern Salt Ponds and creation of connection between Riviera Canal and western Salt Ponds to enhance 131 acres of wetlands and cause significant water-quality improvements,
- ❖ GIS mapping and ecological characterization of mitigation sites for SFWMD UMAM functional gain scoring,
- ❖ coordination with project engineers to develop construction drawings to depict all elements of mitigation plan, including careful design of mangrove colonization and planting areas for appropriate elevations to assure long-term success criteria will be met,
- ❖ compilation of complete impact assessment and mitigation plan (307 pages), including construction drawings, for inclusion by reference in consent agreement,
- ❖ review and comment on consent agreement text proposed by SFWMD, and preparation of all plan copies and large graphics for presentations at consent agreement adoption hearings.

CLIENT: City of Key West

CLIENT REP: David Fernandez

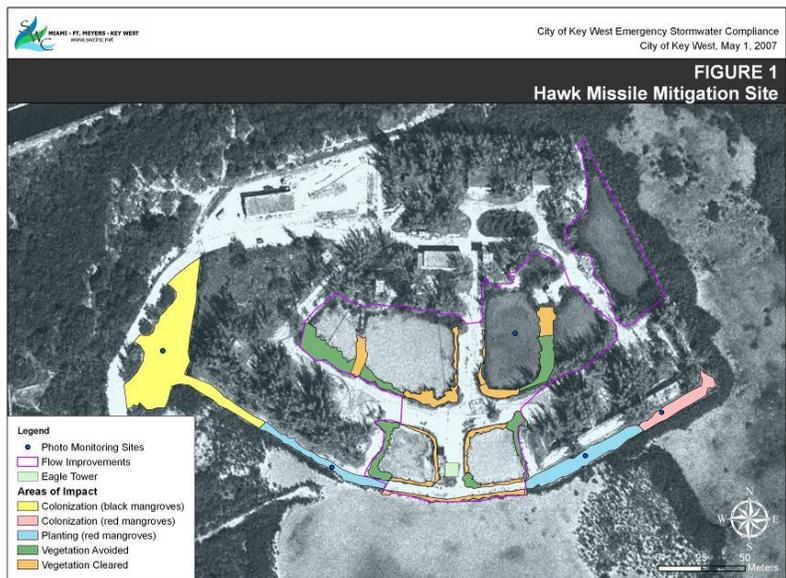
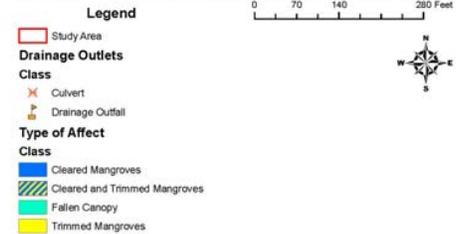
CLIENT CONTACT INFO: Habana Plaza, 3140 Flagler Avenue, Key West FL 33040, (305) 809-3879

KEY PERSONNEL: Sandra Walters & Sera Harold

TOTAL FEE FOR SERVICES: \$54,843.00

SERVICES COMPLETION DATE: 2007

CONTRACTOR: N/A



MARLIN BAY YACHT CLUB REDEVELOPMENT Marathon, FL

SWC (Sandra Walters Consultants, Inc.) served as project planner and environmental resource permit manager to redevelop site in Marathon to contain 92 upland residences and 99 marina slips, including 9 onsite workforce housing units. Site formerly contained closed commercial fishing operation and mobile home park shut down by Health Department for unacceptable wastewater treatment plan. Construction currently underway includes Advanced Wastewater Treatment (AWT) plant and collection system and state-of-the-art stormwater treatment system to support project, which should result in substantial improvements to nearshore water quality.

SWC responsibilities included:

- ❖ extensive coordination with City, Florida Department of Community Affairs, Florida Department of Environmental Protection (DEP), South Florida Water Management District (SFWMD), U.S. Army Corps of Engineers (Corps), and project development team,
- ❖ preparation and successful processing of rezoning application for portion of site,
- ❖ preparation and successful processing of application for development agreement with City and required annual reports,
- ❖ work with marina design engineer to avoid all impacts to submerged marine resources, resulting in no required mitigation for project.
- ❖ preparation and successful processing of applications for State ownership waiver of two shoreline areas created by filling of State-submerged land,
- ❖ preparation and successful processing of environmental resource permit application with SFWMD and Corps (9 months from application to permit issuance),
- ❖ coordination with DEP, SFWMD and Cabinet Aides to process submerged land lease application and acquire final approval from Governor and Cabinet (only second in Florida to acquire special exception under new revised lease rule),
- ❖ successful processing of amendments to City development agreement and State environmental resource permit to accommodate attached units in portion of property and allow non-unit owners to purchase yacht club memberships, and
- ❖ work with City and project design team regarding acquisition of setback variance along one project boundary.

CLIENT: Southstar Development, LLC
 CLIENT REP: Thad Rutherford
 CLIENT CONTACT INFO: 255 Alhambra Circle, Suite 325,
 Coral Gables FL 33134, (877) 878-2762
 KEY PERSONNEL: Sandra Walters & Andrew Vinard
 TOTAL FEE FOR SERVICES: \$271,435.00
 SERVICES COMPLETION DATE: 2009
 CONTRACTOR INFO: unavailable



Sandra Walters Consultants, Inc.
6410 Fifth Street, Suite 3, Key West, FL 33040

Marlin Bay, Marathon, FL
ERP Application, July 7, 2008

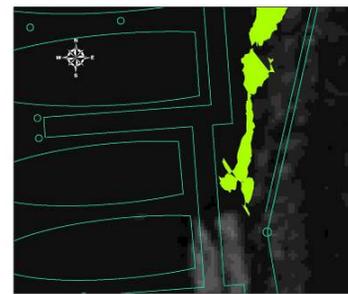
ATTACHMENT 9A North Boat Basin Dock Plan Showing Avoidance of Submerged Habitat



Sandra Walters Consultants, Inc.
6410 Fifth Street, Suite 3, Key West, FL 33040

Marlin Bay, Marathon, FL
ERP Application, July 7, 2008

ATTACHMENT 9B Close View of Seagrass Avoidance



Legend

Resource
 ■ Water with Coral
 ■ Seagrass
 ■ Proposed Docks

0 5 10 20 Feet

Source: 2003 Aerial from Monroe County Property Appraiser
 Dock Plan from Robert E. Samara, P.E., P.A., March 25, 2008
 Adapted by SWC
 Resources mapped on May 1, 2008 using Trimble GPS unit with sub-meter accuracy



GENERAL EMAIL SWC@SWCINC.NET • WEBSITE WWW.SWCINC.NET
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 BRANCH OFFICES: MIAMI • HOLLYWOOD • FORT MYERS

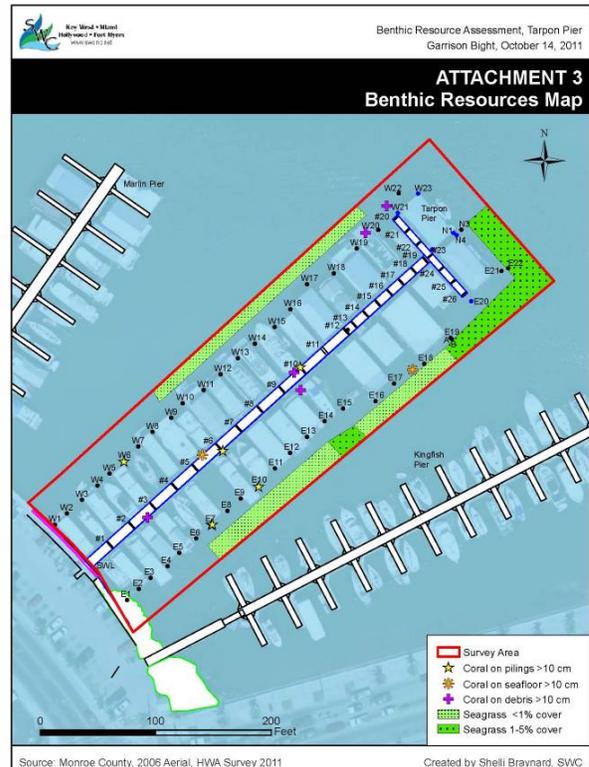


CITY OF KEY WEST TARPON PIER REPLACEMENT FOR CITY MARINA AT GARRISON BIGHT

SWC (Sandra Walters Consultants, Inc.) provided design, permitting, and construction support to the Engineering Team for the environmental portions of the Tarpon Pier replacement at the City Marina.

SW's tasks include the following:

- ❖ participated in project kickoff meeting with City and Team,
- ❖ conducted complete benthic assessment of coral and seagrass resources at and adjacent to Tarpon Pier,
- ❖ provided complete data analysis and benthic assessment report including mapping of resources,
- ❖ coordinated with City, FKNMS and Team to prepare an approved coral relocation/mitigation plan,
- ❖ conducted additional benthic resources survey and provided data analysis and report for adjacent Kingfish Pier,
- ❖ assisted Engineering Team to secure Environmental Resource Permit, including support for application and RAI responses,
- ❖ will coordinate with City, FKNMS, and Team to handle all coral relocation/mitigation activities,
- ❖ will provide required post-construction monitoring of all marine resources in vicinity of Tarpon Pier,
- ❖ will prepare summary report and photographic documentation of all monitoring events required by environmental permits.



CLIENT: City of Key West
 CLIENT REP: Birch Ohlinger
 CLIENT CONTACT INFO: Habana Plaza, 3140
 Flagler Ave, Key West FL 33040, (305) 809-
 3747
 KEY PERSONNEL: Michelle Tallacksen and
 Sandra Walters
 TOTAL FEE FOR SERVICES: \$18,225.00
 SERVICES COMPLETION DATE: 2013
 CONTRACTOR INFO: unavailable



Name of Project: *Regional Wastewater Collection System*

Entity: Florida Keys Aqueduct Authority c/o Mathews Consulting, Inc.

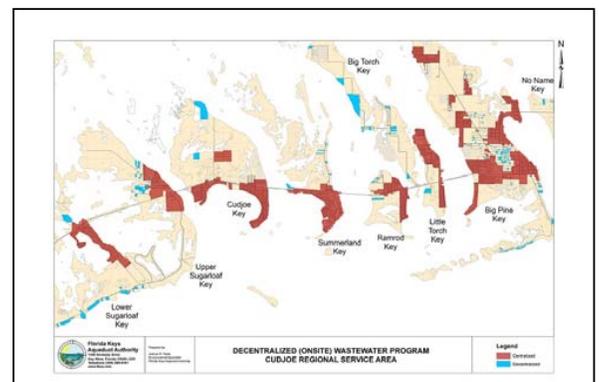
Address: Cudjoe Key, Summerland Key and Upper Sugarloaf Key, Florida

- a) Cudjoe Key (2009): Nutting Engineers of Florida, Inc. (NE) performed the geotechnical exploration/engineering services that included fourteen 25', ten 15' and eighteen 8' standard penetration test borings (SPT's) for the construction/installation of new gravity sanitary sewer lines, force mains and fourteen (14) pump stations throughout Cudjoe Key.
- b) Summerland Key (2010): NE performed the geotechnical exploration/engineering services that included eleven 25', two 15', seventeen 8' and ten 10' standard penetration test borings (SPT's) for the construction/installation of new gravity sanitary sewer lines, force mains and eleven (11) pump stations throughout Summerland Key.
- c) Upper Sugarloaf Key (2010): NE performed geotechnical exploration/engineering services consisting of one 25', two 15', twenty eight 8', and one 10' standard penetration test borings (SPT's) for the construction/installation of new gravity sanitary sewer lines, force mains and one (1) pump station throughout Upper Sugarloaf Key.

Key Personnel: Richard C. Wohlfarth, P.E., Paul Catledge, P.E., Scott Ersland, Geotechnical Division Manager, Don Tyson, Environmental and Geotechnical Drilling Field Supervisor

Our Fees: ~\$39,200.00
Design-Build selection currently underway. We anticipate involvement with the construction material testing and inspection aspect. Overall anticipated budget for Cudjoe Regional Waste Water Collection System is \$70-80M. This is one section of the overall plan.

Contact: Mr. David Mathews, P.E.
Mathews Consulting, Inc.
477 South Rosemary Avenue, Suite 330
West Palm Beach, Florida 33401
Phone: 561.655.6175



Relevant Experience

Name of Project: *Key West Class I Solid Waste Transfer Station at Rockland Key, 2007-2009*

Entity: City of Key West c/o Chen and Associates

Address: Mile Marker 9, Rockland Key, Florida

This project included the construction of a new 43' high transfer building with truck tunnels, a corrugated cardboard recycling building, office and maintenance building, scale house with truck scale platforms and inspection area, leachate storage tank and retaining wall on a ~4 acre vacant parcel in Rockland Key. Asphalt paved parking with associated drive areas, chain link security fence, two stormwater ponds, roadways and other infrastructure were also part of this project.

The intention of the state-of-the-art transfer station was to replace the Southernmost Waste to Energy facility on Stock Island in order to provide the appropriate capacity for the next 20 to 30 years.

This facility is fully constructed and operational.

Nutting's services included the performance of geotechnical engineering, construction materials testing that included nuclear density testing and concrete cylinder testing, pile monitoring and threshold inspection services.

Key Personnel: Richard C. Wohlfarth, P.E.; Christopher E. Gworek, P.E.; Scott Ersland, Geotechnical Division Manager; Todd Simmons, Environmental and Geotechnical Drilling Field Supervisor

Our Fees: ~\$125,000.00; Overall construction cost - ~\$7.9M

Contacts: Mr. Oscar R. Bello, P.E.
Chen and Associates, Inc.
420 Lincoln Road, Suite 700
Miami, Florida 33139
Phone: 786.497.1500 ext. 104

General Contractor Awarded:
D.N. Higgins, Inc.
SW Florida Office
4485 Enterprise Avenue
Naples, Florida 34104
Phone: 239.774.3130



Relevant Experience

Name of Project: *City of Key West, 2012: Mallory Square T-Pier, Zero Duvall Seawall, Ferry Terminal Dock Extension, Ferry Terminal Floating Dock, Tarpon Pier*

Entity: City of Key West c/o CH2M Hill

Address: Multiple Locations, Key West, Florida

The scope for this project included performing twelve standard penetration test borings (SPT's) to a depth ranging from 43 foot to 120 foot deep at five (5) locations of proposed improvements throughout Key West. Many of these borings were performed utilizing a spud barge with four hydraulic leveling legs/feet, which were lowered to the bay bottom elevating the barge a few feet above the water line. This eliminates the up and down action created by boat wakes and tidal influences. Each waterside boring location was properly abandoned utilizing neat grout slurry.

Location #1 - Mallory Square T-Pier

Proposed installation of a new berthing dolphin at the north end of the existing T-Pier structure. Performed waterside borings at this location.

Location #2 - Zero Duvall Seawall at the terminus of Duval Street

A new sheet pile wall/bulkhead will be constructed outside of the existing wall bulkhead structure (54') and large stormwater outfall penetration. In addition, the small building, dock and sun screen will be moved and reinstalled in the same location as previous. Performed land and waterside borings at this location.

Location #3 - Ferry Terminal Dock Extension at the Key West Ferry Terminal

Construction of a ~121' extension to the existing dock. Performed waterside borings at this location.

Location #4 - Ferry Terminal Floating Dock at the Key West Ferry Terminal

Construction of a new floating dock system along 204' of the waterside on Trumbo Road with 50' extensions. Performed waterside borings at this location.

Location #5 - Tarpon Pier, Garrison Bight

Replacement of the existing 400' long Tarpon Pier at the Garrison Bridge. Performed waterside borings at this location.

Key Personnel: Richard C. Wohlfarth, P.E.; Paul Catledge, P.E.; Scott Ersland, Geotechnical Division Manager; Todd Simmons, Environmental and Geotechnical Drilling Field Supervisor

Our Fees: \$92,600; Project currently in design stage. We are anticipating being involved in the future construction material testing and inspections aspect.

Contacts: Mr. Andrew H. Smyth
CH2M Hill
6410 5th Street, Suite 2A
Key West, Florida 33040
Phone: 305.294.1645



Watson Boulevard Bridge

Owner:

Monroe County
1100 Simonton Street
Key West
Florida 33040

Client:

CH2M Hill
Randy Mock
(904) 527-5908

Location:

Watson Boulevard,
Big Pine Key
Monroe County
Florida



The bridge is located along Watson Boulevard, a County roadway on Big Pine Key servicing No Name Key crossing an unnamed canal.

Avirom & Associates, Inc. performed a topographic route-of-line survey to support the design for the restoration of the existing bridge, with drawings submitted and reviewed by District 6 of the Florida Department of Transportation.



Little Palm Island Resort & Spa

Owner:

Noble House Hotel & Resorts

Client:

Noble House Hotel & Resorts
Jamie Colee
(425) 636-5640

Contract: \$17,542

Location:

Little Palm Island
Monroe County
Florida

Little Palm Island, formerly known as Little Munson Island is located in Hawks Channel, a twenty minute boat ride from Little Torch Key at Mile Marker 28.5

The private island is comprised of approximately 4.2 acres of upland with 15 thatched-roof bungalows featuring 30 suites accommodating 60 guests. Native "guests" include over 100 species of birds, colorful iguanas and friendly Key Deer.



Avirom & Associates, Inc. established boundaries for beach re-nourishment and relinquishing of uplands based on Florida Department of Environmental Protection Disclaimer on lands lost to avulsion. Prepared exhibit to revise the limits of lands to be relinquished to the State of Florida, and to acquire formerly submerged lands for our client based on a historical mean high water line. An ALTA/ACSM Land Title Survey with a Mean High Water Line survey, recorded in the repository of the Florida Department of Environmental Protection (FDEP) was also performed.

After the FDEP approved the boundaries for the re-nourishment and relinquishing of uplands based on the above exhibits a Consent Order was issued by the FDEP and Avirom & Associates, Inc. re-mobilized to the island and staked the boundary according to the Consent Order.



Past distinguished guests are President and Mrs. Harry S. Truman including President John F. Kennedy and Cliff Robertson during the filming on the island of the movie PT-109



Bahama Village, Key West

Owner:

City of Key West
P.O. Box 1409
Key West, Florida 33041
(305) 809-3700

Client:

Kimley-Horn and Associates
Juan E. Jimenez
1221 Brickell Avenue
Suite 400
Miami, Florida 33131
(305) 673-2025

Bahama Village is a neighborhood in the City of Key West, Monroe County. It is located southwest of downtown, in Old Town.



Bahama Village covers over a 16 block area that lies southwest of Whitehead Street and northeast of Truman Annex, bordered by Whitehead, Southard, Fort and Louisa Streets. It is named for its many original residents who were of Bahamian ancestry.

The entrance to the village on Petronia Street has an open air flea market, shops and restaurants, and has recently become a small tourist attraction.



Avirom & Associates, Inc. performed topographic route-of-line survey throughout Bahama Village from Duval Street southerly to Front Street, including the Truman Annex to support the rehabilitation and new construction of sidewalks. Elevations were based on NGVD 1929, with benchmarks established at every intersection and mid-point of blocks. Sufficient boundary evidence was recovered to spatially place the right-of-way and platted lot lines within the digital AutoCAD file.



Controversial Key West chickens



References

We encourage the City to contact the following references who will attest to the high level of professional services and responsiveness that Chen Moore is committed to providing to all our clients.

City of Key West

John Paul Castro
201 William Street
Key West, FL 33040
(305) 809-3803
jcastro@keywestcity.com

Florida Keys Aqueduct Authority

Donald Hubbs, P.E.
1100 Kennedy Drive
Key West, FL 33041
(305) 295-2142
dhubbs@fkaa.com

City of Dania Beach

Dominic Orlando, P.E.
100 W. Dania Beach Boulevard
Dania Beach, FL 33004
(954) 924-3740
dorlando@ci.dania-beach.fl.us

City of Miami Beach

Carla Dixon
777 17th Street, 3rd Floor
Miami Beach, FL 33139
(305) 673-7071
carladixon@miamibeachfl.gov

5. Names, Job Classifications, and Qualifications of Engineering Personnel

Name	Job Classification and Discipline
Ben Chen, Ph.D., P.E., BCEE	Principal
Oscar Bello, P.E.	Project Manager
Jose Acosta, P.E.	Senior Engineer, Civil Engineering
Michael Buick, P.E.	Senior Engineer, Civil Engineering
Safiya Brea, P.E., LEED AP	Senior Engineer, Civil Engineering
Jason Haeseler, P.E.	Senior Engineer, Solid Waste Engineering
Jason McClair, P.E., CFM, LEED AP	Senior Engineer, Utility Planning and Modeling
Peter Dueño, P.E.	Associate Engineer, Utility Engineering
Jennifer Smith, P.E.	Associate Engineer, Utility Engineering
Marcus Austin, GC, LEED AP	Director of Construction Services, CEI
Marlon John	Construction Inspector, CEI

Subconsultants

Name	Firm Name	Job Classification and Discipline
Michael Walther, P.E., D.CE.	Coastal Tech	President/Principal-in-Charge, Coastal Eng.
Cliff Truitt, P.E., Ph.D., D.CE.	Coastal Tech	Sr. Engineer/Principal QA Engineer, Coastal Eng.
Tem Fontaine, P.E.	Coastal Tech	In-House Project Manager, Coastal Eng.
Walker Dawson, P.E.	Coastal Tech	Project Engineer, Coastal Eng.
Lisa Colmenares, AICP	BCC Engineering	Senior Planner, LAP Coordination
Ariel Millan, P.E.	BCC Engineering	Civil/Roadway Engineer, LAP Coordination
Robert Helmer, P.E., LEED AP	BCC Engineering	Civil/Roadway Engineer, LAP Coordination
Ricardo A. Ayala, P.E.	BCC Engineering	Civil/Roadway Engineer, LAP Coordination
Luis Rodriguez, P.E.	BCC Engineering	Sr. Drainage Engineer, LAP Coordination
Owen Trepanier	Trepanier & Assoc.	President, Land Use Planning
Juan Fuentes, P.E., S.E., LEED AP	United Engineering	Principal, Structural Engineering
Jim Bouquet, P.E., CPESC	SWC	Sr. Environmental Engineer, Environmental Eng.
Sandra Walters	SWC	President, Environmental Planning
Jill Beth Cohen	SWC	Senior Planner, Environmental Planning
Michelle Tallacksen	SWC	Senior Project Manager, Environmental Planning
Paul Catledge, P.E.	Nutting Engineers	Sr. Project Engineer, Geotech Eng.
Richard Wohlfarth, P.E.	Nutting Engineers	Principal/Director of Engineering, Geotech Eng.
Michael Avirom, P.L.S.	Avirom	President, Survey
Keith Chee-A-Tow, P.L.S.	Avirom	Project Surveyor, Survey

Qualifications

Please see page 3-1 for qualifications of our team.

6. Proposed Management Approach

Chen Moore and Associates (CMA) is familiar with all aspects of the process for the implementation of engineering projects from conceptual planning to detailed design through construction administration. This familiarity comes from the experience with projects for various clients throughout the South Florida area, including within the Florida Keys.

The Chen Moore Team, including our subconsultants, has experience with a variety of civil engineering disciplines:

- Water Distribution System Design
- Water Transmission System Design
- Wastewater Collection System Design
- Wastewater Transmission Design
- Sanitary Sewer Pump Station Design and Rehabilitation
- Water and Wastewater Treatment
- Stormwater System Design
- Water and Wastewater Systems Computer Modeling
- Construction Administration
- Value Engineering
- GIS Mapping
- Roadway Improvements
- Landscaping Improvements
- Grant and Loan Services
- Structural Condition Assessment
- Solid Waste Facility Design
- Coastal Engineering Services
- Coastal Geology Services



Local Knowledge

Our team has been involved in the planning, design, engineering, and construction of many projects in the Keys since 2001. Our team understands the context and design intent of the city's projects, and has in-depth knowledge of the City's processes and expectations. We are well aware of potential issues and the level of detail associated with design, engineering, permitting and construction in Key West .

The map on the following page illustrates our experience throughout the Keys



Key West Experience

1. Key West Bight Historic Marina
Structural Condition Assessment

2. Conch Republic Seafood Improvements
*Signage
Improved Pedestrian Access
Hardscape Enhancements*

3. Duval Street Intersections
*(Caroline, Eaton, Fleming, Southard, Angela Streets)
Pedestrian Signalization Improvements*

4. Navy Pedestrian Bridge

5. Cruise Ship Swing Bridge Concept
Pedestrian Access Improvements

6. Key West Public Transportation Facility

Other Lower Keys Experience

Key West Solid Waste Transfer Station

FKAA Cudjoe Regional Wastewater Collection Project

The following sections outline the general approach of the Chen Team for utility infrastructure improvements.

Design Phase

The design of a utility improvement project incorporates many different skills that the Chen Team can bring together to make a project successful. These skills include conceptual planning, detailed design, computer modeling, cost estimating and quality control. Some examples of our past experience within the types of projects specified in the RFQ are as follows:



Water Main or Reuse Construction Projects

- Transmission Network Modeling and Analysis
- Distribution System Design

Gravity Sewer Main Construction Projects

- Sewer System Design
- Capacity Analysis and Line Sizing
- Feasibility Analysis
- Inflow & Infiltration Studies

Force Main

- Transmission Network Modeling
- Transmission Line Design
- Emergency Repair Work

Lift Stations

- Rehabilitation of Existing Pump Stations
- Relocation of Existing Pump Stations
- New Pump Station Design
- Pumping System Modeling
- Odor Control

Planning

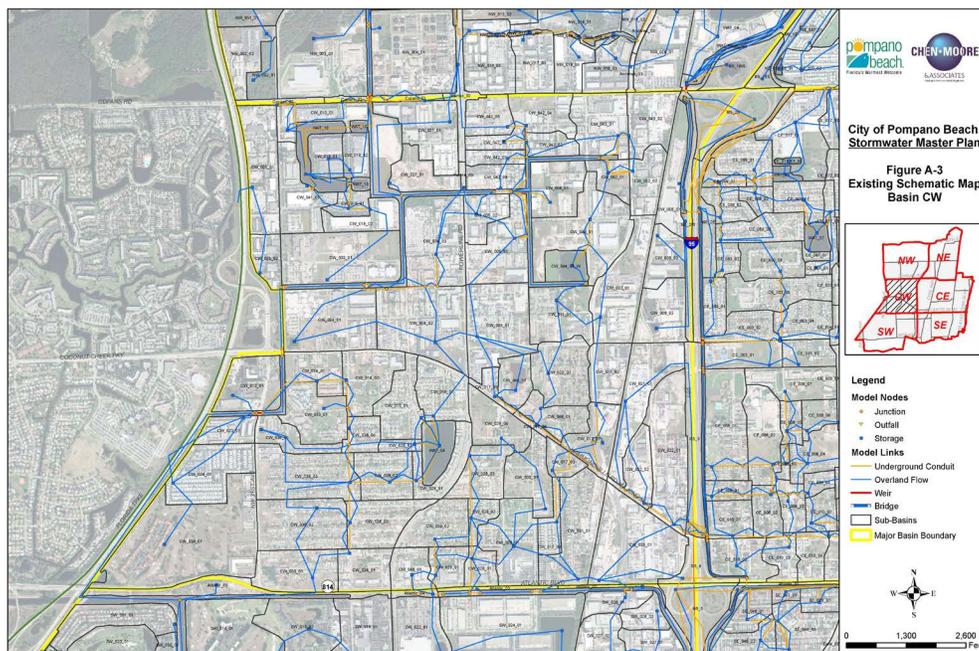
Conceptual planning begins with an investigation of the existing conditions of the project area and of the infrastructure system. This work can begin before the survey is even completed by compiling all available information on the existing conditions related to the project area. Sunshine State One Call will be contacted immediately to identify all of the companies that own facilities in the project area.

A plan with the project limits and key geographic features will be sent out so the companies can provide the location of their existing utilities. These features will be digitized so CMA can identify major obstacles early in the project. Once the survey is complete, the existing features will be translated into CAD to produce clear and legible plans. The existing data would need to be reviewed and field verified for accuracy. The existing data includes:

- **Utility Atlas/As-Built Drawings** – Chen Moore and Associates will need to review and analyze all existing utility atlases and as-built drawings to determine the impact on the proposed improvements. In order to get an understanding of each infrastructure system, the paper atlases can be scanned and georeferenced into a GIS layer and incorporated with any digital data on the existing systems. This process can be used for creating a digital atlas or modifying the existing atlas. One of the benefits of creating GIS data for utility structures is that the same information can later be used by City.
- **Parcel GIS Layer** - Parcel data from the Monroe County Property Appraiser’s Office is very powerful because it can be used for multiple purposes in the planning of various infrastructure components. This data can be used to create a higher accuracy land use layer, to develop projections related to sanitary flow or water use, to estimate pavement coverages for drainage planning, to store data about residents in zones of concern, and many other uses. This data is especially useful during detailed design and construction for tracking resident concerns.
- **Aerial Photographs** - These can be used to identify and coordinate above-ground conflicts, and encroachments and are also beneficial in presentations and meetings with residents.

Modeling

Chen Moore and Associates is familiar with various utility modeling software, including Eagle Point (Sewer Modeling), ICPR (Stormwater Modeling), SWMM (Stormwater Modeling), SewerCAD, WaterCAD, and StormCAD by Bentley Systems (formerly Haestad Methods). These programs are used to estimate the flow conditions within utility pipe networks and to size the utility components to handle the existing and/or future flows. Together with these programs, we can utilize a three dimensional model of the existing ground surface using Civil 3D to calculate proper cover for utility pipes and to create utility profiles based on slope and minimum invert requirements. We are able to use these programs to calculate friction losses and size pipes for various flow scenarios. As such, the plan and profiles for underground utilities can be designed and laid out with the assistance of our modeling software. CMA also utilizes our software for an additional check of possible utility conflicts and to determine where pipes must be offset and where conflict structures must be utilized to resolve gravity flow conflicts.



Chen Moore and Associates has prepared several Stormwater Master Plans that have involved modeling including: City of Hollywood, City of Pompano Beach, Fort Lauderdale International Airport, and Lauderdale-by-the-Sea.

Coordination

Coordination is another aspect of the project that will start at the very beginning. Through experience, CMA has learned that a project can only be successful when open lines of communication exist between the Engineer and the Client, the public, various agencies, services and other consultants. Only by working together can every stakeholder feel that their individual experience contributed to the successful completion of the project.

Coordination with the City

CMA has lead and observed project progress meetings, briefings to elected officials, construction meetings, meetings with regulatory agencies, and public meetings involving citizens and residents. CMA is also available to attend City Commission meetings upon request.

Coordination with the Public

The addition of public involvement to the scope of any construction project management is an important step to be undertaken by the owner. By linking the two tasks, the information that the public will receive is current and correct because it comes straight from the source. Additionally, it provides the public with an opportunity to pose questions, give complaints and generally understand the progress of the project. Having managed the public involvement for several projects of this nature, CMA has developed an approach that encompasses four general methods to ensure public involvement and minimize complaints. These include public information, homeowners meetings, services coordination and complaint resolution. Each of these areas is discussed as follows:

The addition of public involvement to the scope of any construction project management is an important step to be undertaken by the owner.

■ **Public Information**

A key component of public involvement is a public information campaign that ensures the public is always well informed of the work. By giving the public information before it is requested, it minimizes the potential questions and complaints that may bog down the project team. The CMA approach includes a direct mail campaign to initiate the project along with door hangers and signage that informs the public as the project progresses. The language in these notices is always jointly approved by the entire project team to eliminate any potential surprises.

■ **Meetings with Residents**

Public meetings held for the impacted homeowners are good forums for the dissemination of information to large groups of the affected public. In these meetings, CMA has made presentations to inform the public of the upcoming improvements in lay terms to enhance the purpose of the direct mail campaign. In other meetings, CMA's staff has been present to give construction updates and record any concerns that may arise. Our presence at these meetings helps maintain the image of constant public involvement and the idea that the public is an important member of the project team. Input from the residents is also valuable when studying different design alternatives and during construction.



■ **Complaint Resolution**

One of the most critical components of public involvement is acquiring, tracking and resolution of public complaints. The process for gathering complaints needs to be thorough to ensure that the nature of the complaint is accurately portrayed. The tracking of the complaints should include the complaint initiation, the results of the site and preconstruction research, the instructions to contractor and the actual resolution of the complaint. In addition, a record of all contact with the person initiating the complaint will be kept. Finally, the resolution needs to include an official document notifying the originator of the complaint of the final outcome. Every step in the complaint resolution process needs to be accurately recorded for use in any possible future concerns.

Coordination with Agencies

Coordination with regulatory agencies is a critical part of the project schedule. CMA holds preliminary meetings with agencies before submitting permits so the project can be introduced and contact information can be exchanged. Then when permits are submitted, the agency can feel free to contact someone that they have met and will be able to answer any questions they have.

Coordination with regulatory agencies is a critical part of the project schedule.

Services Coordination

From experience, CMA has realized that over one quarter of all complaints in projects of this nature are a result of the resident losing an essential service as a result of the construction. These include postal delivery, solid waste collection, public transportation rerouting and other “normal” daily services.

In order to avoid these concerns, CMA works with the agencies involved prior to the loss of services in order to reach a solution that is amicable to all parties involved. This includes sending information about construction impacts, such as a street closure schedule, on a weekly basis to any party that does business in the area so that they can plan around the necessary inconvenience of construction. Additionally, during the initial public information direct mail campaign, CMA sends out special needs forms whereby any individual that may experience difficulties as a result of the improvements is given an opportunity to be identified prior to any loss of service.

Coordination with Other Consultants

CMA understands the need for reviewing and verifying work by others. Other consultants’ work will be subject to an internal review process as it is received. CMA has also developed a system for submittal requirements from subconsultants that is conveyed at the beginning of the project so all parties know what is expected of them.

Firm's procedure for quality control for small, medium, and large projects.

Whether large, medium or small, Chen Moore and Associates believes that every project requires a thorough quality control review. In order to maintain project budgets, avoid costly mistakes and provide adequate public safety, we have made Quality Control a priority and we believe that it is the single “most important” element of any project. Our internal policy has an established program that requires that two non-project team members perform the quality control duties utilizing our internal QC checklists. These QC checklists have been developed for each specific type of project and are implemented at each milestone. By engaging non-team members in the QC process, we will get a fresh “set of eyes” that will provide honest and detailed input that will ensure that the project gets thoroughly checked. QC reviews will be carried out for each submittal and at the final design phase. Plans will be reviewed for compliance, constructability, safety, value engineering and project specific concerns. The QC process will be led and documented by the assigned quality control manager.

Quality Control is enforced to make sure our plans and the construction of improvements comply with industry and engineering standards. With over 25 years of design experience along with our established QC program enable us to provide our clients with great service and a great product.

Our team makes use of a series of standard procedures and reports to ensure that all of our services are standardized. Such reports are used during the several stages of a project. Below is a list of the standard reports to be utilized by the Chen Moore Team:

- ***Kick-off Meeting Report*** – This report is a standard template and is utilized internally for every project. The report will contain basic information such as project name, project budget, brief project description, project manager and project team members. In addition, the report provides contact information for the owner and client.
- ***QC/QA Checklists*** – This is a checklist developed by Chen Moore, which is a thorough list of items to be reviewed at each submittal. It also requires the signature of the project manager, CAD drafter and QA/QC person assigned to the project.
- ***Action Item List*** – This standard form is utilized to keep everybody informed about the project progress. The form has an action item list, a responsible person (including clients and third parties), due date for the specific task and a list for comments.
- ***Permit Tracker*** – This standard form is utilized to track permits and provide updates of the permitting process. It also includes expected dates, dates of permit and permit date expiration. This list is provided to the client along with all the permits.
- ***Construction Field Reports*** – Chen Moore has a series of reports utilized during construction administration services. These include: Field reports, RFI Log, Shop Drawing log, Items beyond scope log.



Ability of Firm to Handle Tasks Expeditiously

Chen Moore and Associates feels that responsiveness to our clients' needs is the driving force in consulting engineering. If the client is interested in fast tracking or expediting a project, then we will perform within the specified time frame.

We can attest to this commitment through a recent project completed for the City of Key West. Chen Moore received a request from the City to conduct emergency structural assessments and within hours we had a structural engineer onsite, providing feedback and quickly following up with engineering documents.

There are a number of times during a typical design project where the schedule can be accelerated without adverse effects. It is during these times that Chen Moore and Associates suggests that the schedule be reconsidered, so that a quality project will be delivered within the desired time frame. Upon award of this contract, Chen Moore and Associates would like to establish a fee schedule for all foreseen tasks. During the contract negotiation phase for each work order, Chen Moore and Associates will try to ascertain the driving factor for each project. Once these factor(s) have been determined, Chen Moore and Associates will present the client with a projected schedule that meets their needs. At this time, we will discuss any potential concerns, such as coordination pitfalls, that will arise as a result of this schedule. By addressing these concerns at the inception of a project, Chen Moore and Associates can prepare the client for a realistic expectation of the project schedule and any potential concerns. Chen Moore and Associates is a firm believer in the motto "make realistic expectations and the realizations will be as expected." By adhering to this ideal, we are able to tell a client whether or not simply putting more staff on a project will put a project back on track, without giving excuses once the project is completed late.



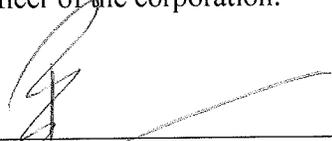
Thompson Fish House Emergency Shoring

7. Forms

ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA)
 : SS
COUNTY OF Miami-Dade)

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

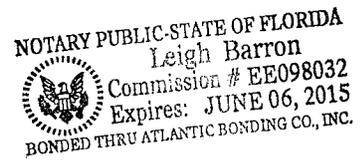
By: 
Peter Moore, P.E., LEED AP
President

Sworn and subscribed before me this

 31st day of July , 2012.


NOTARY PUBLIC, State of Florida at Large

My Commission Expires: June 6, 2015



**SWORN STATEMENT UNDER SECTION 287.133(3)(a)
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES**

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICE AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with Bid, Bid or Contract No. No. 12-005 for General Engineering Services

2. This sworn statement is submitted by Chen Moore and Associates
(Name of entity submitting sworn statement)
whose business address is 1444 Biscayne Blvd., Suite 204 Miami, FL 33132
and (if applicable) its Federal Employer Identification Number (FEIN) is 59-2739866 (If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement.)

3. My name is Peter Moore, P.E., LFED AP and my relationship to
(Please print name of individual signing)
the entity named above is President.

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any Bid or contract for goods or services to be provided to any public entity or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.

5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means
 1. A predecessor or successor of a person convicted of a public entity crime: or
 2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural

person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which Bids or applies to Bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

8. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)

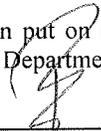
Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.

The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)


Peter Moore, P.E., LEED AP

(Signature)
July 31, 2012

(Date)

STATE OF Florida

COUNTY OF Miami-Dade

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Peter Moore, P.E., LEED AP who, after first being sworn by me, affixed his/her signature in the
(Name of individual signing)

space provided above on this 31st day of July, 2012.

My commission expires: June 6, 2015 
NOTARY PUBLIC

NOTARY PUBLIC-STATE OF FLORIDA
Leigh Barron
Commission # EE098032
Expires: JUNE 06, 2015
BONDED THRU ATLANTIC BONDING CO., INC.

BlueOptions

Benefit Booklet



Robert I. Lufrano, M.D.
Chairman of the Board and Chief
Executive Officer

This Benefit Booklet
Contains Deductible
Provisions

For Customer Service Assistance:
800-352-2583

BlueOptions
Small Group
24111 0609 BCA



**BlueCross BlueShield
of Florida**

An Independent Licensee of the
Blue Cross and Blue Shield Association

Section 10: Eligibility for Coverage

Each employee or other individual who is eligible to participate in the Group Plan, and who meets and continues to meet our eligibility requirements described in this Booklet, shall be entitled to apply for coverage with us under this Booklet. These eligibility requirements are binding upon you and/or your eligible family members as well as the Small Employer. No changes in our eligibility requirements will be permitted unless we have been notified of and have agreed in writing to any such change in advance. We may require acceptable documentation that an individual meets and continues to meet the eligibility requirements such as a court order naming the Covered Employee as the legal guardian or appropriate Adoption documentation described in the “Enrollment and Effective Date of Coverage” section.

Eligibility Requirements for Covered Employees

In order to be eligible to enroll as a Covered Employee, an individual must be an Eligible Employee. An Eligible Employee must meet each of the following requirements:

1. The employee must be a bona fide employee;
2. The employee's job must fall within a job classification identified on the Small Employer Application;
3. The employee must have completed any applicable Waiting Period identified on the Small Employer Application; and
4. The employee must meet any additional eligibility requirements identified on the Small Employer Application.

The Covered Employee eligibility classification may be expanded to include:

1. retired employees;
2. additional job classifications;
3. employees of affiliated or subsidiary companies of the Small Employer, provided such companies and the Small Employer are under common control; and
4. other individuals as determined by us and the Small Employer (e.g., members of associations or labor unions).

Any expansion of the Covered Employee eligibility class must be approved in writing by us and the Small Employer prior to such expansion, and may be subject to different Rates.

Eligibility Requirements for Dependents

An individual who meets the eligibility criteria specified below is an Eligible Dependent and is eligible to apply for coverage under this Booklet:

1. The Covered Employee's spouse under a legally valid existing marriage;
2. The Covered Employee's Domestic Partner when the Covered Employee has completed and submitted any required forms to the Small Employer and the Small Employer has determined the Domestic Partnership eligibility requirements have been met;
3. The Covered Employee's natural, newborn, adopted, Foster, or step child(ren) (or a child for whom the Covered Employee has been court-appointed as legal guardian or legal custodian) who:
 - a. is under the age of 25 or has not reached the end of the Calendar Year in which he or she reaches age 25 (or in the case of a Foster Child, is no longer eligible under the Foster Child Program); and

- i. is dependent upon the Covered Employee for financial support; and
 - 1. living in the household of the Covered Employee or a full-time or part-time student; or
 - 2. the child does not live in the household of the Covered Employee and is not enrolled as a full or part-time student because the child has not met the age requirement to begin elementary school education; or
- b. has reached the end of the Calendar Year in which he or she becomes 25, but has not reached the end of the Calendar Year in which he or she becomes 30, and who:
 - i. is unmarried and does not have a dependent;
 - ii. is a Florida resident or a full-time or part-time student;
 - iii. is not enrolled in any other health coverage policy or plan; and
 - iv. is not entitled to benefits under Title XVIII of the Social Security Act unless the child is a handicapped dependent child.
- c. in the case of a handicapped dependent child, such child is eligible to continue coverage, beyond the limiting age of 30, as a Covered Dependent if the dependent child is:
 - i. otherwise eligible for coverage under the Small Employer Master Policy;
 - ii. incapable of self-sustaining employment by reason of mental retardation or physical handicap; and
 - iii. chiefly dependent upon the Covered

Employee for support and maintenance provided that the symptoms or causes of the child's handicap existed prior to the child's 30th birthday.

This eligibility shall terminate on the last day of the month in which the dependent child no longer meets the requirements for extended eligibility as a handicapped child.

Or

- 4. the Covered Domestic Partner's dependent child(ren), who meets all of the following eligibility requirements, and the eligibility requirements for Eligible Dependents listed in item number 3 of this subsection, who:
 - a. resides regularly with the Covered Employee and the Domestic Partner, or the Domestic Partner is required to provide coverage for the Eligible Dependent child(ren) by court order; or
 - b. qualifies as the Domestic Partner's dependent(s) for tax purposes under the federal guidelines; and
 - c. meets and continues to meet the eligibility requirements as outlined in this section.
- 5. The newborn child of a Covered Dependent child who has not reached the end of the Calendar Year in which he or she becomes 25. Coverage for such newborn child will automatically terminate 18 months after the birth of the newborn child.

Note: If a Covered Dependent child who has reached the end of the Calendar Year in which he or she becomes 25, obtains a dependent of their own (e.g., through birth or adoption), such newborn child will not be eligible for this coverage and the Covered Dependent child will also lose his or her eligibility for this coverage. It is your sole responsibility as the Covered Employee to establish that a child meets the

applicable requirements for eligibility. Eligibility will terminate on the last day of the month in which the child no longer meets the eligibility criteria required to be an Eligible Dependent.

Covered Domestic Partners and/or Covered Dependents of Domestic Partners are not entitled to continuing coverage but, may be entitled to apply for a conversion policy as set forth in the "Conversion Privilege" section of this Benefit Booklet.

Exception for Students on Medical Leave of Absence from School

A Covered Dependent child who is a full-time or part-time student at an accredited post-secondary institution, who takes a Physician-certified medically necessary leave of absence from school, will still be considered a student for eligibility purposes under this Booklet for the earlier of 12 months from the first day of the leave of absence or the date the Covered Dependent would otherwise no longer be eligible for coverage under this Booklet.



THE CITY OF KEY WEST

3140 Flagler Ave
Key West, FL 33040

ADDENDUM NO. 1 RFQ NO. 12-005: GENERAL ENGINEERING SERVICES July 19, 2012

This addendum is issued as supplemental information to the RFQ package for clarification of certain matters of both a general and a technical nature. The referenced RFQ package is hereby added in accordance with the following items:

1. Page 4 lists that a firm may submit for 1 or more of 5 the categories. Please confirm that we can submit for all 5 categories in one submittal package (2 copies + cds, etc), and we do not need to submit one package for each category (ie 5 sets of packages).

Only one proposal package is to be submitted which identifies any one of, or all of the various disciplines listed in the RFQ that the Proposer is proposing services for.

2. Is submittal of an SF330 sufficient?

Use of SF330 form is not required. Proposer shall submit a complete qualifications package in a format that contains all required elements.

3. Does the city have an MBE goal?

No.

4. Are we to include subcontractors in our RFQ or can we add them based on the particular task order?

Proposers shall identify each subconsultant that they are proposing using as part of this contract. City approval would be required if Proposer wishes to make changes or adds to the list of subconsultants once contract is issued. The qualifications of all members of a Proposer's team will be considered in the selection process.

5. On page 6 of the RFQ, License Requirements, it states that the winning respondent will also be required to obtain and maintain a City of Key West Business Tax Receipt. Could you please clarify if this means that the winning firm must have an office location in Key West?

Firms selected as part of this contract are not required to maintain an office in Key West.

6. Public Entity Crimes Certification was identified as being three (3) pages in length.

Public Entity Crimes Certification is two (2) pages in length

7. Under the Submission Details section on page 5 reference is made to “Architect firms should submit a complete qualifications package that includes:”

This should read “Engineering firms should submit a complete qualifications package that includes:”

8. Is a page limit for the submission information listed on page 5?

No. However firms should limit their proposals to a reasonable number of pages.

9. Who are the current contract holders?

The City does not track this information. Proposer can contact DemandStar by Onvia at www.demandstar.com/supplier or call toll-free 1-800-711-1712.

10. How much was spent under the current contract, and on what kind of projects?

This information is unavailable. Proposers are reminded that no minimum amount of service or compensation will be assured to the retained firm(s).

11. The existing language under Qualifications Criteria:

“Other certifications including LEED and LAP (Federal DOT) certified staff professionals”

Shall be modified to read:

“Other certifications including LEED and FDOT certified staff professionals”

12. Please clarify the submittal requirements for “Past five (5) years of specific relevant experience” under the Submission Detail section.

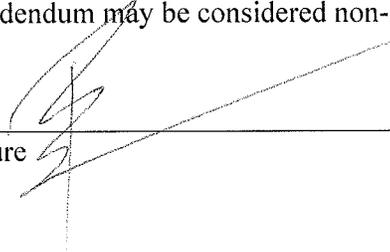
The existing language

Past five (5) years of specific relevant experience. The examples should include the name of client, client’s representative, client’s address and telephone number, key personnel involved in design phase services, design services fee, estimate of construction cost, name of contractor awarded project contract award amount, contractor’s representative, contractor’s address and telephone number.

Shall be modified to read:

Past five (5) years of specific relevant experience. The examples should include the project description, name of client, client's contact and telephone number, design services fee, identify if project was constructed or not and project cost, name of contractor awarded project, and contractor's representative and telephone number.

All Proposers shall acknowledge receipt and acceptance of this Addendum No. 1 by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.



Signature

Chen Moore and Associates

Name of Business