Town of Belleair Request for Qualifications ADM18-1 for Engineer of Record Professional Services

May 31, 2018

Pennoni

PARTNERS FOR WHAT'S POSSIBLE

www.pennoni.com

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Clearwater, FL 33764
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www.pennoni.com

May 31, 2018

PRO# 1802210

Town of Belleair
ATTN: Procurement Officer
901 Ponce De Leon Blvd
Belleair, FL 33756

RE: Town of Belleair Request for Qualifications ADM18-1 for Engineer of Record Professional Services

Dear Members of the Selection Committee:

Town of Belleair (Town) is a busy, growing community with a high quality of life standard. The Town is continuously making infrastructure improvements to their roadway, drainage and utility systems to enhance livability and provide their citizens a desired place to live and enjoy today.

Pennoni Associates Inc. (Pennoni), and our design partners have extensive engineer of record experience and understands your needs along with knowing how to properly design and administer your projects.

Pennoni recently celebrated their 50th year as a multidiscipline engineering and design consulting firm that provides personalized services and solutions to meet the needs of our diverse clients. Pennoni employs over 1,150 professional, technical, and administrative personnel in 35 offices. We currently have over 75 staff locally in Florida. All local staff as indicated in our proposal are available to work on your projects.

Peter Nikolov, PE will be your assigned Project Manager. Peter has been providing services to the Town of Belleair for over 25 years and is very familiar with your project expectations. He has completed many roadway, drainage, utility and permitting projects. Some of the projects are listed below:

- Ponce / Shirley Improvements
- Orlando Road Storm Rehabilitation
- Bayview Drive Improvements
- Manatee Road Improvements
- Osceola Road Improvements
- Roebling Road Improvements
- Pine / Bayview Drive Improvements
- Garden Circle Road Improvements
- Eagles Nest Drive Improvements
- Pine Circle Road Improvements
- Sunset Drive Improvements
- Community Center Stormwater Permit
- Bayview-Ponce-Oleander Improvements
- Traffic Calming - Woodlawn Avenue
- Traffic Calming - Wildwood Way
- Traffic Study -Belleview Biltmore
- Rosery-Laurel-Ponce Road Improvements
- Town NPDES

He has a local reputation of getting engineering assignments done in a responsive and cost-effective manner while maintaining very high-quality control standards**.**

Pennoni has partnered with the following firms:

Arcadis: They will provide water and wastewater related support services.

ESA Scheda: They will provide ecological, wetlands and water quality related support services.

Tierra (MBE): They will provide geotechnical, groundwater and contamination related support services.

Peter Nikolov and Pennoni have managed and performed similar engineer of record type services for many clients in Florida. Some of the local municipal clients include:

- Town of Belleair
- City of Largo
- City of Clearwater
- City of Safety Harbor
- City of Oldsmar
- City of Belleair
- City of Belleair Beach
- City of Pinellas Park
- City of St. Petersburg
- City of Lakeland
- City of South Pasadena
- City of Madeira Beach
- City of Redington Beach
- City of St. Pete Beach
- City of Seminole
- City of Treasure Island
- City of Marco Island
- City of Tarpon Springs
- City of Dunedin
- City of Ft. Myers
- City of Haines City
- City of Tallahassee
- Town of Lake Hamilton
- City of Winter Haven
- City of Mulberry
- City of Bowling Green
- City of Eagle Lake
- Town of Dundee
- City of Tampa
- Pinellas County
- Hillsborough County
- Manatee County
- Sarasota County
- Collier County
- Hernando County
- Pasco County
- Polk County
- Marian County
- Sumter County
- Lee County

Benefits and advantages that our team brings you:

- Peter Nikolov with over 25 years working directly with the Town of Belleair. He understands your needs, expectations and has successfully completed many projects for the Town.
- Full civil engineering planning, design, permitting and construction services.
- Similar experience working with other local municipal clients.
- Core team's availability to work on your projects.
- Proven responsiveness and adherence to schedules and budgets.
- In-place quality control standards for all deliverables including constructability and biddability reviews.

Peter Nikolov designed the Manatee Road Improvements for the Town of Belleair

Pennoni is committed to providing the necessary resources and engineering services required to complete the Town's project assignments.

We bring extensive local area similar project experience and have the resources and expertise as may be needed for your projects.

We look forward to the opportunity to continue our working relationship, continue to serve your needs and provide you with the quality professional services you expect.

Respectfully submitted,
PENNONI ASSOCIATES INC.

Nelson Shaffer,
Executive Vice President

E. Peter Nikolov, PE
Project Manager

TABLE OF CONTENTS

Pennoni

SECTION 1

QUALIFICATIONS QUESTIONNAIRE

(EXHIBIT B)

EXHIBIT B QUESTIONNAIRE

INSTRUCTIONS FOR COMPLETION OF QUESTIONNAIRE

1. Questionnaire is to be completed in typewritten form. Five (5) copies are to be submitted. Questionnaires may be duplicated as required. Attach additional sheets as required or desired.

2. Illustrated brochure(s) and professional records may be attached and submitted to augment the data included in this questionnaire.

QUALIFICATION QUESTIONNAIRE for Engineer of Record; Professional Engineering Services for the Town of Belleair

1. Firm Name: **Pennoni Associates Inc.**

2. Established: a. **1966** b. **PA**

3. Former Firm Name(s), if any, and years in business. **None**

4. Office/Business Address and Telephone Number:

Headquarters
Pennoni Associates Inc.
1900 Market Street, Suite 300
Philadelphia, PA 19103

Telephone: **215-222-3000**

5. Branch Offices Business Address and Telephone Numbers:

Local Office
Pennoni Associates Inc.
2555 Nursery Road, Suite 104
Clearwater, FL 33764

Telephone Number: **727-420-2487**

6. Associates and Principals: Name-Title-Specialties (Attach Resumes)

Refer to Section 3

7. Total Personnel of Firm: 1192

a. Professional: 374
b. Non-Professional: 648
c. Other: 170

8. Key personnel to be involved in the provision of these services.
(Name-Title-Specialties-Degree-Registration-Years of Experience)

Refer to Section 2

EXHIBIT B QUESTIONNAIRE

9. What outside Associates and Consultants does your firm normally work with? Include:

    a. Name and Address
    b. Specific Services
    c. Name of Last Joint Project

Pennoni normally works with the following Consultants.

ESA Scheda – Ecological
5892 E. Fowler Avenue
Tampa, FL 33634
Last Joint Project – DLTWTF Railroad and Drainage Design

MC Squared – Geotechnical
5808 A Breckenridge Parkway
Tampa, FL 33610
Last Joint Project - DLTWTF Railroad and Drainage Design

Tierra – Geotechnical
7351 Temple Terrace Highway
Tampa, FL 33637
Last Joint Project – Clearwater-Largo Road District Improvements

10. Is it anticipated that your firm will subcontract any architectural, engineering, landscape design/architecture, or other services when working on specific projects?

    Yes, for Architectural.

    If so, please discuss the nature and extent of the anticipated subcontracting, including the use of local businesses.

    We propose to subcontract with local geotechnical and ecological businesses. We will also use local businesses for printing and graphic production.

11. Please describe the types of projects in which your firm has specialized. Include an example of a project which typifies the product of your firm.

    Refer to Sections 4 and 5. Pennoni has extensive civil engineering services that will benefit the Town. Sample product of recent project is on the USB drive.

12. Based on your understanding of the proposed scope of services, please attach a list of representative municipal projects or engineering services in which your firm has been involved in the types of engineering services identified in this RFQ, specifically within the past 10 years.

    Include:

    a. Client
    b. Contact person and phone number
    c. Services provided
    d. Original estimate of project cost

e. Actual project cost
f. Original estimate of task completion schedule, e.g., Study/Analysis of Needs Report, Project Design, Construction, etc.
g. Actual completion schedule

Refer to Section 5.

13. Discuss how your firm will respond quickly to Town needs. How will you maintain close effective communications with Town staff?

    Refer to Section 6.

14. Provide a discussion of your firm's familiarity with typical problems which might arise with the provision of engineering services in the manner described in the RFQ.

    Refer to Section 6.

15. Document your firm's ability to provide a high-quality service on schedule and within budget. Discuss the control systems you will utilize to effectively manage projects.

    Refer to Section 6

16. Provide a list of Municipal, State, and Federal references which can be contacted.

    Refer to Section 7

17. Discuss your firm's Affirmative Action and Equal Opportunity practices.

    Equal employment opportunity has been, and will continue to be, a fundamental principle at Pennoni, where employment is based upon personal capabilities and qualifications without discrimination because of race, creed, color, religion, gender/sex, age, marital status, sexual orientation, gender identity or expression, genetic information, national origin, citizenship status, disability, handicap, veteran status, or any other protected characteristic as established by law.

    We will take affirmative action to ensure that applicants are employed, and that employees are treated fairly during employment, without regard to their race, creed, color, national origin, gender/sex, age, disability, marital status, sexual orientation, citizenship status, gender identity or expression, genetic information, religion, handicap, veteran status, or any other protected characteristic as established by law and referred to under Pennoni's Affirmative Action Plan.

    We comply with all applicable affirmative action requirements of the Federal Government Affirmative action programs provide for fuller utilization and development of all human resources.

    This policy of Equal Employment Opportunity and Affirmative Action applies to all policies and procedures relating to recruitment and hiring, compensation, benefits, termination, selection for training and all other terms and conditions of employment.

    Every employee is responsible for abiding by the Company EEO/AA policy. The Human

EXHIBIT B QUESTIONNAIRE

Resources Department has overall responsibility for overseeing this policy and maintains reporting and monitoring procedures. The Director of Human Resources serves as the EEO and Affirmative Action Administrator for Pennoni Associates. All questions and concerns should be directed to the Director of Human Resources for proper response and action.

18. Please indicate if you are aware of any personal or organizational conflicts of interests. Provide an explanation of your firm's involvement in ongoing or pending litigation, claims, suits against the Town of Belleair, if any.

    Pennoni is not aware of any personal or organizational conflicts of interests. Our internal policy is to immediately resolve any conflict of interest situations. There is no current litigation in Florida or with the Town.

19. Provide any additional information which you feel may be pertinent to the provision of these services, but not specifically required elsewhere in the RFQ.

    Refer to our proposal sections.

20. Is your firm a certified minority business enterprise with a government agency, such as the Florida Department of Management Services? If yes, please indicate as such and include documentation of an active certification for your firm.

    Although Pennoni is not a certified minority business enterprise with a government agency, we are committed to include certified minority owned businesses on our projects whenever possible. Tierra is a minority business which we will use for the geotechnical services.

21. Please Indicate the Types of Work for which your firm is submitting its qualifications by marking an X in the box to its left (Please mark X for all that apply)

Mark X		Mark X	
X	**A. Design Phase**	**X**	**B. Construction and Inspection Phase Services**
X	**C. Project Administration**	**X**	**D. General Civil/Stormwater Engineering**
X	**E. Traffic Engineering**	**X**	**F. Water/Wastewater Engineering**
	G. Geotechnical Engineering	**X**	**H. Pavement Management**
X	**I. Geographic Information Systems Services (GIS)**	**X**	**J. Grant Administration**
X	**K. General Engineering Consultation / Peer Review / Quality Assurance Review**		

SECTION 2

KEY PERSONNEL AND EXPERIENCE

Key Personnel and Experience

The key strengths of the Pennoni team and the primary needs of the Town of Belleair will be led by our Work Assignment Managers who bring a broad base of technical and management capabilities to meet the various project task needs. The following key staff will be assigned primarily for the Town of Belleair projects.

Project Manager

Peter Nikolov, PE: Mr. Nikolov has over 30 years of experience in civil, transportation, stormwater, permitting, and utility engineering. His entire career has been in Florida and he has managed and completed hundreds of projects including Town of Belleair projects.

He will be directly involved with the roadway design, drainage analysis, drainage design, LID, sidewalk / trail design, ADA, street / intersection design, LAP, alternative analysis, probable construction cost estimates, treatment and attenuation system design, utility design, utility relocations and coordination, structures design, value engineering, grants, specifications, constructability and biddability reviews, construction management, GIS and CAD applications.

Project Role: Project Manager

Ronald Leder, PE: Mr. Leder brings over 30 years of experience in civil engineering. His expertise includes roadway, drainage, intersection, trail, sidewalk, bikes, ADA, streetscapes and "livable streets" designs, plans preparation, quantities, cost estimates, specifications, and construction management.

Project Role: Roadway, Drainage, Utilities, Traffic, Pavement and MOT

Mike Henderson, PE: Mr. Henderson brings over 25 years of experience in civil engineering. His expertise includes drainage analysis, drainage design, utility relocation, utility design, roadway design, permitting and plans production.

He is very proficient with ICPR and AutoCAD Civil 3D.

Project Role: Roadway, Drainage, Permitting, GIS and Utilities

Mike McCarthy, PE: Mr. McCarthy brings over 35 years of experience in Florida. He has worked on more than 500 structural related projects including for the Town of Belleair. His expertise includes analysis, design and construction of both new and renovation projects. These projects can range from site structures that include retaining walls, paving, culverts, screen walls, pedestrian bridges, sea walls, fencing, light poles to all sizes and all types of building structures.

Project Role: Structural Design

Kriss Kaye, PE: Mr. Kaye brings over 20 years of experience in civil engineering. His expertise includes civil engineering, stormwater modeling, drainage design, permitting, environmental, water quality, coordination, planning and construction management.

Project Role: Drainage, Utilities, Civil Design and Permitting

Steve Shealey, PE: Mr. Shealey brings over 40 years of experience in civil engineering. His expertise includes roadway, intersections, trails, sidewalks, stormwater modeling, water, wastewater, utility relocation, LAP and construction management.

Project Role: Roadway, Drainage, Water / Wastewater and Utilities Design

Roger Homann, PE: Mr. Homann brings over 25 years of experience including utilities master planning, wastewater collection system design, water production well design, municipal water treatment plant design, water distribution system modeling / design, aquifer testing and data analysis, groundwater modeling, water use permitting, grant / loan application and administration, groundwater / soil remediation system design, vapor recovery system design, and air permitting.

Project Role: Water / Wastewater, Utilities Relocation and Utilities Design

Kelly Cranford, PE: Ms. Cranford brings over 25 years of stormwater analysis and design, permitting and civil design experience. She served as a Regulatory Section Leader (9 years) at SFWMD. She supervised the Agricultural Team and was responsible for the review, recommendation of approval, and enforcement of Environmental Resource and Consumptive Use permits throughout the 16-county region. She personally has reviewed over 150 ERP applications including the water quality, stormwater and modeling for the permits.

Project Role: Drainage, Water Quality and Permitting

Steve Elias, PE: Mr. Elias brings over 25 years of experience including wastewater collection / transmission, water supply, distribution system infrastructure and construction management. He has completed numerous water, sewer, solid waste, transportation, and stormwater master plans for numerous municipalities and has secured over $238 million in grant and loan funding assistance for municipalities.

Project Role: Water / Wastewater, Utilities Relocation and Utilities Design

Michael Hooker: Mr. Hooker has 15 years of experience in civil engineering. His expertise includes preparation of conceptual plans, preliminary designs and final construction level drawings for a variety of projects, including stormwater management facilities, roads, water, reclaimed water, wastewater, recreational facilities and solid waste management facilities. He is proficient in AutoCAD and design.

Project Role: Roadway, Drainage, Civil Design and Utilities Design

Maurice Formaz: Mr. Formaz has over 20 years of experience in civil engineering. He is proficient in AutoCAD and design. He has designed a variety of projects, including stormwater management facilities, streets, intersections, trails, sidewalks, parks, water and wastewater.

Project Role: Roadway, Drainage, Civil Design and Utilities Design

Michael Joyce: Mr. Joyce brings over 20 years of civil and survey related experience. His expertise includes surveying, planning, data research, deeds, title searches, technical calculations and wetland jurisdictions. He has significant experience working with civil related projects.

Project Role: Survey, Roadway, Drainage and Utilities Design

Angela Garland, PE: Ms. Garland brings 20 years of experience in transportation engineering, traffic analysis, traffic collection, traffic operations and planning. She has expertise with rezoning, comprehensive plans, traffic impact studies, corridor analysis, signal warrants, signal retiming and crash analysis. Software expertise includes SYNCHRO, HCS and other traffic software.

Project Role: Traffic analysis, Traffic Operations, Signal Design and Planning

Robert DuBois, PSM: Mr. DuBois brings over 35 years of experience in boundary surveys, topographic surveys, ALTA / NSPS surveys and record surveys. He has expertise with legal descriptions, right-of-way control, platting, GIS mapping, photogrammetric mapping control and construction staking. He also has experience with 3D Laser Scanning and Ground Penetrating Radar technology.

Project Role: Topographic Surveys, Boundary Surveys, 3D Laser Scanning and GIS

Pennoni Local Florida Staff

First Name	Last Name	Job Title Description	Designation	Experience (Years)
Peter	Nikolov	Project Manager	PE	32
Ronald	Leder	Project Engineer II	PE	30
Michael	Henderson	Senior Engineer I	PE	28
Kriss	Kaye	Senior Engineer I	PE, CFM	25
Steven	Shealey	Senior Consultant	PE	42
Kelly	Cranford	Senior Engineer I	PE	28
Angela	Garland	Senior Engineer I	PE	20
Michael	Hooker	Senior Designer II		15
Michael	Joyce	Senior Technical Specialist		22
Wayne	Sweikert	Senior Surveyor	PLS	44
Bethany	Evans	Senior Planner	CFEA, REPA,	32
Steven	Elias	Senior Engineer II	PE	27
Roger	Homann	Project Engineer III	PE (GA)	28
Robert	DuBois	Principal Surveyor	PSM	36
Nelson	Shaffer	Executive Vice President		44
Maurice	Formaz	Engineering Technician I		23
Michael	McCarthy	Senior Engineer III	PE	40
Jeremy	Case	Project Engineer II	PE, SE	10
Jeffrey	Salemme	Senior Engineer II	PE, SE, SI	32
Christopher	Lee	Senior Engineer I	PE	12
Brick	Rosenbaum	Senior Engineer III	PE, SI	42
George	Dansby	Quality Control Manager		55
James	Lynn	Senior Designer I		48
Mark	Huber	Health and Safety Coordinator		41
Robert	Swinnerton	Project Superintendent		40
Allan	Kelly	Project Engineer II	PE	40
Gregg	Pattee	CADD Technician		38
Raymond	Monson	Senior Engineer II	PE	37
Linda	Houk	Senior Structural Steel Inspector		36
Nemesio	Gomez	Senior Construction Professional		36
Jeffrey	Buckallew	Quality Control Manager		36
Pamela	Spidel	Technical Assistant		35
Ammons	Joseph	Quality Control Manager		35
Constance	Selinsky	CADD Technician		34
Yates	Douglas	Inspection Supervisor		32
Mark	Erkkila	Construction Coordinator		32
Eduardo	Nievas	Business Analyst		32
Larry	Blackman	Quality Control Manager		31
Dennis	Nye	Quality Control Manager		31
Frederick	Mason	Project Superintendent		31
Richard	Butala	Principal Engineer		31
Jill	Riebel	Technical Support		30
Lee	James	Project Construction Professional		30
Tina	Hubacker	Administrative Services Manager		30
Neil	Murphy	Senior Designer I		29
William	Triplette	Quality Control Manager		28
Bryan	Zelenenki	Staff Surveyor	PSM	26
Paul	Wallace	Quality Control Manager		25
Robert	Selinsky	Senior Engineer II	PE, SI	24
David	Way	Instrument Operator		23
Patrick	Dunfield	Construction Coordinator		23
Jason	Rice	Project Engineer III	PE	21
Joseph	Dommestrup	Survey Technician		20

First Name	Last Name	Job Title Description	Designation	Experience (Years)
James	Hall	Senior Engineer I	PE	20
Russell	Holmes	Site Superintendent		20
Reynaldo	Martinez	Survey Technician		19
Micky	Smith	Project Superintendent		19
Vince	Barnes	Project Engineer I	PE	12
Rebecca	Wilhite	Project Accountant I		11
Debra	Fink	Technical Assistant		10
Justin	Duncan	Senior Engineer I	PE	8
Brenton	McLean	Inspection Supervisor		8
Steve	Zengel	Project Engineer I	PE	7
Thomas	Branch	Graduate Engineer		6
Julieta	Guzman	CADD Technician		6
Jeffrey	McKinney	Staff Engineer I		5
Eduardo	Oviol	Associate Engineer I	PE	5
Rodney	McConnell	CADD Technician		4
Tremaine	Gissentaner	Staff Engineer I		3
Trent	Smith	CADD Technician		3
Alain	Daumy	Survey Technician		2
Mitchell	Mefford	Engineering Intern		2
Stanislava	Vukadin	CADD Technician		2
Joseph	Massimo	Associate Engineer I		2
Michael	Colna	Survey Technician		1
Siddhesh	Rahate	Design Engineer		1
Yong	Yue	Design Engineer		1

Pennoni Key Staff Experience Matrix Town of Belleair	E. Peter Nikolov, PE	Ron Leder, PE	Mike Henderson, PE	Michael McCarthy, PE	Kriss Kaye, PE	Steve Shealey, PE	Roger Homann, PE	Kelly Cranford, PE	Steve Elias, PE	Michael Hooker	Maurice Formaz	Michael Joyce	Angela Garland, PE	Robert DuBois, PSM	Wayne Sweikert, PLS	Max Villanueva	Beth Evans, AICP	Nelson Shaffer	Jeffrey Salemme, PE	Ted Januszka, PE	Anthony Castellone, PE	Brenton McLean	Andrew Pennoni, PE
Transportation | Drainage | Civil | Utilities | GIS																							
> Preliminary Engineering	●	●	●	●	●	●	●	●	●	●	●		●		●			●	●	●	●	●	●
> Field Investigations / Assessments	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
> Route Analysis / Evaluation	●	●	●		●	●	●	●	●	●	●		●				●	●		●	●		●
> Feasibility Analysis / Studies / Planning	●	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●	●	●	●		●
> Minor Roadways (Includes Sidewalks, Trails, ADA)	●	●			●	●	●	●	●	●	●		●		●		●	●		●	●		●
> Major Roadways	●	●				●												●		●	●		●
> Interstates / Interchanges	●	●																		●	●		
> RRR Design	●	●				●									●			●		●	●		●
> Complete Streets	●	●	●			●			●	●	●		●		●		●	●		●	●		
> Intersections	●	●	●		●	●	●	●	●	●	●		●					●		●	●		●
> Multimodal / Shared Used Paths	●	●	●		●	●		●	●	●	●		●					●		●	●		●
> Access Management	●	●				●		●					●				●	●		●	●		●
> Signing and Pavement Markings	●	●	●							●	●		●					●		●	●		
> Traffic Control Plans & Phasing	●	●	●		●	●				●	●		●					●		●	●	●	●
> Local Agency Program (LAP)	●	●	●		●	●				●	●	●	●	●		●	●				●		
> DOT Coordination	●	●	●		●	●	●	●	●	●	●	●	●	●	●		●	●		●	●		●
> NEPA Requirements	●	●				●		●										●		●	●		●
> Public Involvement	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
> Traffic Engineering	●	●				●				●	●		●					●		●	●		
> Traffic Calming	●	●				●				●	●		●					●		●	●		
> Intelligent Transportation Systems (ITS)																		●			●		
> Brick Streets	●	●				●			●						●			●		●	●		
> Roundabouts	●	●				●							●					●		●	●		
> Utility Analysis and Design	●	●	●		●	●	●	●	●	●	●				●					●			●
> Railroad Coordination, Design, Permitting	●	●	●			●									●					●	●	●	●
> Stormwater / Drainage Analysis and Design	●	●	●		●	●		●	●	●											●		
> Stormwater Modeling	●		●		●			●							●								
> Permitting and Certifications	●	●	●	●	●	●	●	●	●	●	●		●					●	●	●	●	●	●
> Grants and Funding	●		●	●	●	●	●	●	●				●				●	●	●	●	●		●
> Structural and Bridge Analysis and Design	●			●															●				●
> Survey and Mapping (3D Scanning)												●		●	●	●							
> GIS / Asset Management	●		●									●	●	●	●	●							
> Value Engineering	●		●	●	●	●	●		●					●				●	●	●	●		●
> Bidding Services	●	●	●	●	●	●	●	●	●	●			●		●		●	●	●	●	●	●	●
> Construction Cost Estimating	●	●	●	●	●	●	●	●	●	●	●				●	●	●		●	●	●	●	●
> Construction Management	●	●	●	●	●	●	●	●	●						●				●	●	●	●	●

Pennoni key staff bring the above experience for the various types of work that can be provided to the Town of Belleair

Subconsultants

ARCADIS Design & Consultancy for natural and built assets

Arcadis is a leading global Design & Consultancy firm for natural and built assets. They apply their deep market sector insights and collective design, consultancy, engineering, project and management services and work in partnership with their clients to deliver exceptional and sustainable outcomes throughout the lifecycle of their natural and built assets.

For this contract, they will assist with water / wastewater related services. Their office includes over 20 professionals dedicated solely to water / wastewater infrastructure.

- Hydraulic modeling and master planning
- Asset management / condition assessment
- Feasibility studies / preliminary designs
- Water and wastewater design and permitting
- Construction administration and startup
- Grant application and funding compliance

ESA SCHEDA

ESA Scheda specializes in ecological, wetlands and water quality consulting services. For this contract, they will assist the Town with the following services:

- Environmental and bridge permitting
- Habitat restoration / mitigation / stormwater quality
- Hydrologic studies
- Wetland assessment
- Protected species
- UAS (drone) mapping and data collection
- Habitat mapping and analysis
- Ecological and water quality assessments
- NEPA alternatives analysis and documentation
- Environmental CEI and monitoring
- Exotic / nuisance vegetation
- Water quality / NPDES programs

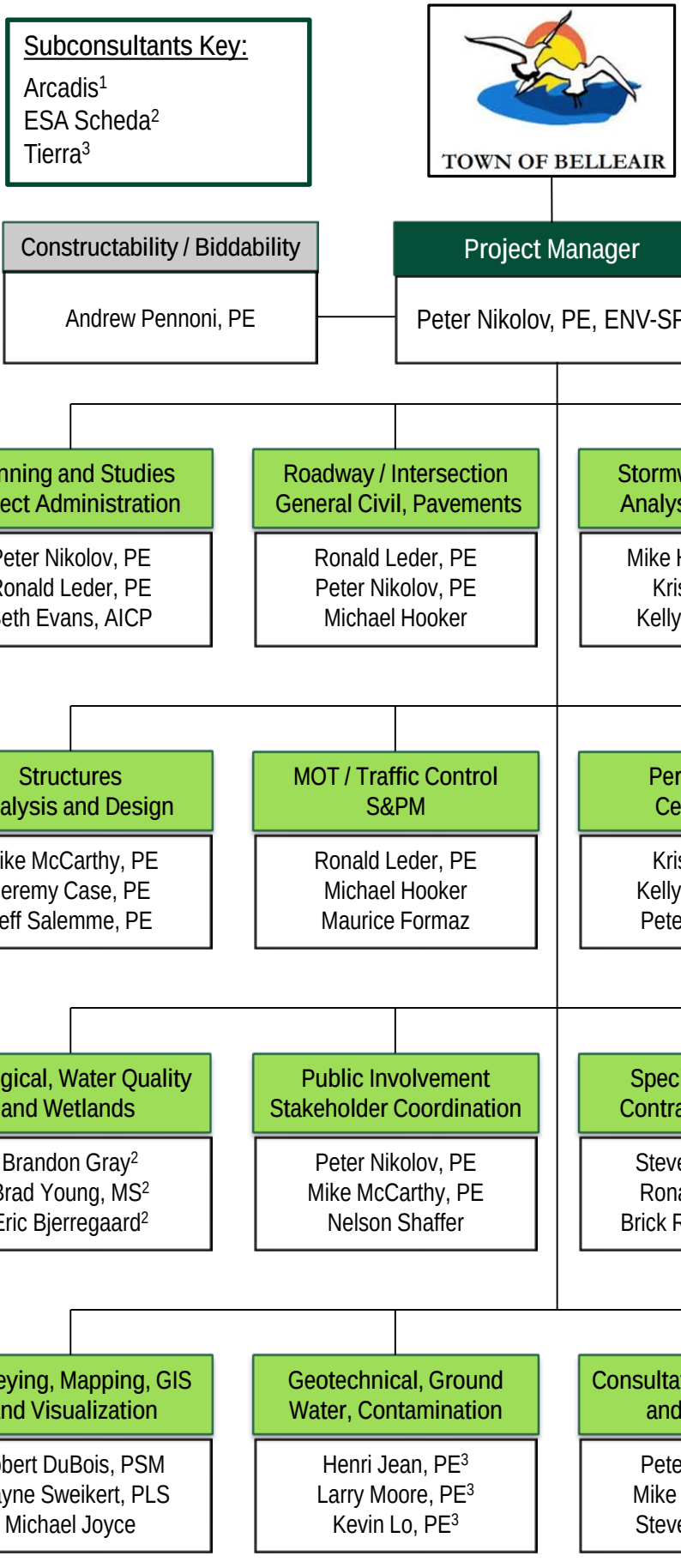
TIERRA GEOTECHNICAL • MATERIALS ENGINEERING

Tierra, Inc. ***(MBE)*** is a multi-disciplinary geotechnical, environmental and construction materials testing engineering firm. They have extensive local knowledge of the soils and geotechnical formations in Pinellas and surrounding Counties. They will provide geotechnical, groundwater and contamination related services for the Town of Belleair project assignments.

- Retaining wall design
- Laboratory testing and analysis
- Site grading recommendations
- Sinkhole studies
- Soil reinforcement
- Expert witness testimony
- Pavement and slab evaluations and design
- Deep & shallow foundation analysis and design
- Subsurface exploration
- Corridor studies
- PD&E studies
- Contamination

SECTION 3

ORGANIZATIONAL CHART AND RESUMES


Subconsultants Key:
Arcadis[1]
ESA Scheda[2]
Tierra[3]
TOWN OF BELLEAIR
Constructability / Biddability
Andrew Pennoni, PE
Project Manager
Peter Nikolov, PE, ENV-SP
QA/QC
Steve Elias, PE
Nelson Shaffer
Planning and Studies Project Administration
Peter Nikolov, PE
Ronald Leder, PE
Beth Evans, AICP
Roadway / Intersection General Civil, Pavements
Ronald Leder, PE
Peter Nikolov, PE
Michael Hooker
Stormwater Drainage Analysis and Design
Mike Henderson, PE
Kriss Kaye, PE
Kelly Cranford, PE
Traffic Operations, Safety and Traffic Calming
Angela Garland, PE
Anthony Castellone, PE
Nelson Shaffer
Structures Analysis and Design
Mike McCarthy, PE
Jeremy Case, PE
Jeff Salemme, PE
MOT / Traffic Control S&PM
Ronald Leder, PE
Michael Hooker
Maurice Formaz
Permitting and Certifications
Kriss Kaye, PE
Kelly Cranford, PE
Peter Nikolov, PE
Utility Relocation / Design Water / Wastewater
David O'Connor, PE[1]
Chris Hill, PE[1]
Sean Chaparro, PE[1]
Ecological, Water Quality and Wetlands
Brandon Gray[2]
Brad Young, MS[2]
Eric Bjerregaard[2]
Public Involvement Stakeholder Coordination
Peter Nikolov, PE
Mike McCarthy, PE
Nelson Shaffer
Specifications and Contract Documents
Steve Shealey, PE
Ronald Leder, PE
Brick Rosenbaum, PE
Grants and Funding
Peter Nikolov, PE
Steve Elias, PE
Steve Shealey, PE
Surveying, Mapping, GIS and Visualization
Robert DuBois, PSM
Wayne Sweikert, PLS
Michael Joyce
Geotechnical, Ground Water, Contamination
Henri Jean, PE[3]
Larry Moore, PE[3]
Kevin Lo, PE[3]
Consultation, Peer Review and QA Review
Peter Nikolov, PE
Mike McCarthy, PE
Steve Shealey, PE
Bidding, Construction Services and Management
Andrew Pennoni, PE
Ronald Leder, PE
Steve Shealey, PE

E. Peter Nikolov, PE, ENV-SP

Refer to Organizational Chart

EDUCATION

MS, Civil Engineering; University of South Florida (1986)

BS, Civil Engineering; University of South Florida (1984)

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL #38766

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers
Florida Institute of Consulting Engineers
Florida Engineering Society
American Society of Highway Engineers

EXPERIENCE SUMMARY

Mr. Nikolov has over 30 years of experience in civil engineering including roadway design, drainage design, parks design, site design, and bridge design, value engineering, construction management, stormwater management including complex modeling, alternative analysis, treatment system design, attenuation system design, erosion control system design, channel improvements design, public involvement and permitting. His experience also includes project management along with AutoCAD and GIS systems applications.

REPRESENTATIVE PROJECTS

Roadway, Intersection, Sidewalk and Drainage Improvement Projects, Belleair, FL

Project Manager Project Engineer and Principal – Responsible for roadway design, drainage design, intersection design, sidewalk design, utility design, permitting, MOT, specifications and post design services for the following Town of Belleair projects:

- Ponce/Shirley Improvements
- Orlando Rd Storm Rehabilitation
- Bayview Dr Improvements
- Manatee Rd Improvements
- Osceola Rd Improvements
- Roebling Rd Improvements
- Pine / Bayview Dr Improvements
- Garden Circle Rd Improvements
- Eagles Nest Dr Improvements
- Pine Circle Rd Improvements
- Sunset Dr Improvements
- Community Center Stormwater Permit
- Bayview-Ponce-Oleander Improvements
- Traffic Calming - Woodlawn Avenue
- Traffic Calming - Wildwood Way
- Traffic Study -Belleview Biltmore
- Rosery-Laurel-Ponce Rd Improvements
- Town NPDES

Roadway, Intersection, Sidewalk and Drainage Improvement Projects, Dunedin, FL

Project Manager, Project Engineer and Principal – Responsible for roadway design, intersection design, sidewalk design, drainage design, utility design, permitting, MOT, specifications and post design services for the following City projects:

- Patricia Avenue Improvements
- Palm Boulevard Improvements
- Harborview Drive Improvements
- Curlew Creek Improvements
- Virginia Avenue Intersection
- Main Street /Broadway improvements
- San Christopher Drive Improvements
- Hammock Park Improvements
- Dunedin Master Drainage Plan
- Wilson Drive Improvements

Roadway, Intersection, Sidewalk and Drainage Improvement Projects, Tarpon Springs, FL

Project Manager, Project Engineer and Principal – Responsible for roadway design, intersection design, sidewalk design, drainage design, utility design, permitting, MOT, specifications and post design services for the following City projects:

- MLK Drive Improvements
- Safford Avenue Improvements
- L&R Industrial Blvd Improvements
- Sponge Dock Parking Lot
- Stormwater Inventory / GIS
- Multiple Brick Street improvements
- Potable Water
- Wastewater
- Landfill
- Drainage Improvements

Clearwater-Largo Road Improvements – Largo, FL

Project Manager - The project involved over three miles of roadway and drainage improvements. This included local streets and milling and resurfacing of Clearwater-Largo Road. The project included traffic analysis, drainage analysis, drainage design, LID, SWFWMD grant, trail connections, multi-modal, traffic calming, public involvement and coordination.

43rd Street Roadway, Drainage, Intersection and Sidewalk Improvements – Tampa, FL
Project Manager - Project entailed analysis of the drainage and proposed improvements to local streets, intersections, sidewalks to incorporate the proposed improvements. Includes preliminary alternative analysis assessment followed by route recommendations. The alternative analysis included the costs of the drainage and roadway improvements including the necessary intersection and connecting sidewalk improvements. Other aspects include stormwater modeling, CSX crossing, SWFWMD/FDOT permitting, public involvement, probable construction costs, specifications & plans.

70th Avenue and 66th Street Roadway, Drainage & Intersection Improvements, Pinellas Park, FL
Project Manager – Project entails roadway, drainage and intersection analysis, design and permitting. The roadway, drainage and intersection improvements include adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation for safety due to nearby school, sidewalk through driveways, ADA tie-ins at 66th Street, signing & pavement markings, safety upgrades and drainage improvements. Also included replacement of sidewalk not meeting current design standards. Rural typical section with new inlets and pipes. Permitting through FDOT and SWFWMD.

Ponce De Leon Blvd and Shirley Avenue Intersections Improvements, Belleair, FL
Project Manager – Project entailed roadway, drainage and intersection improvements. There is sidewalk on the north side that does not meet ADA requirements. The sidewalk on the NW corner will be realigned at the intersection. New ADA ramps will be designed in accordance to current standards. The project involved large culvert drainage improvements due to pipe joint failure, inlet replacements, new Type F curb, new valley gutter and asphalt surface course, base and stabilization replacement. The project also included drainage evaluation, probable construction costs and plans.

US 19 and 70th Avenue Intersection, Roadway, Sidewalk and Drainage Improvements (LAP) – Pinellas Park, FL
Project Manager - Project entailed roadway, drainage and intersection analysis, design and permitting. The roadway and intersection improvements will entail adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation / design for cross-slope on each side of the road, sidewalks through driveways, ADA/ramp tie-ins at the intersections at US 19 and Cypress Terrace, signing & pavement markings, safety upgrades and drainage improvements. Also permitting through FDOT and SWFWMD.

DLTWTF Railroad Track and Drainage Improvements – Tampa, FL
Project Manager - This project involved drainage analysis, drainage design and rehabilitation of the railroad sidetrack. Alternative analysis was completed for the proposed railroad track and drainage improvements. The BMP alternatives included evaluation of storm culverts, additional swale/ditch capacities, additional outfall conveyance and track alternatives. Water quality analysis was also completed for a portion of the basin that had hydric soils and adjacent to a closed land field. All measures were taken to not disturb the land field and minimize wetland impacts. The existing swales were enlarged to provide additional storage and water quality treatment. Probable construction cost estimates were prepared for the alternatives along with conceptual designs. The project also involved coordination with CSX for realignment of tracks, new drainage under the tracks and sidewalk connection to the tracks.

Tall Pine Drive Drainage Evaluation and Drainage Improvements, Safety Harbor, FL
Project Manager - The high flows in the Bishop Creek basin caused severe channel erosion and for a triple mitered end structure downstream to crack and fail. The severe erosion caused the channel to have a 1:1 and steeper side slope and a channel migration within several feet of an existing driveway. Because of the erosion proximity of the channel near the driveway, this became an emergency project for the City. They wanted to find a channel protection alternative using best management practices to stabilize the channel and downstream structure. Various BMP alternatives were considered for the channel stabilization including natural slope regrading, benching, cellular confinement system and gabions. Based on probable costs, constructability and long term maintenance considerations, a gabion system was selected and designed for the channel. A recommendation was also made to replace the failing triple mitered end section with headwalls and new storm conveyance pipes. A cellular confinement system was proposed between the headwalls to provide erosion protection for over-topping storm events.

Ronald J. Leder, Jr., PE

Refer to Organizational Chart

EDUCATION

BS, Civil Engineering, University of South Florida (2008)

AS, Engineering Science, University of New York at Farmingdale (1994)

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL #68160

CERTIFICATIONS/TRAININGS

Advance MOT Certification, FDOT (#8134, Exp. 5-22-19)

Specifications Package Training for Consultants, FDOT (2001)

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers (ASCE)

American Society of Highway Engineers (ASHE)

Inst. of Transportation Engineers (ITE)

EXPERIENCE SUMMARY

Mr. Leder has 30 years of experience in transportation and traffic engineering. He is skilled in: project management, transportation/traffic planning, project development & environment, and minor/major highway design. His additional expertise includes drainage design, maintenance of traffic, ADA compliance, bicycle/pedestrian facility design, utility design/coordination, design/build, environmental, municipal and agency permitting, pavement design, signing/striping, signalization design, specifications development, value engineering, cost estimating, construction engineering inspection (CEI), plan production/CADD, marketing and business development.

REPRESENTATIVE PROJECTS

43rd Street Roadway, Drainage, Intersection and Sidewalk Improvements, Tampa, FL

Project Engineer - Project entailed analysis of the drainage and proposed improvements to local streets, intersections, sidewalks to incorporate the proposed improvements. Includes preliminary alternative analysis assessment followed by route recommendations. The alternative analysis included the costs of the drainage and roadway improvements including the necessary intersection and connecting sidewalk improvements. Other aspects included stormwater modeling, CSX crossing, SWFWMD/FDOT permitting, public involvement, probable construction costs, specifications & plans.

70th Avenue and 66th Street Roadway, Drainage & Intersection Improvements, Pinellas Park, FL

Project Engineer – Project entailed roadway, drainage and intersection analysis, design and permitting. The roadway, drainage and intersection improvements include adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation for safety due to nearby school, sidewalk through driveways, ADA tie-ins at 66th Street, signing & pavement markings, safety upgrades and drainage improvements. Also included replacement of sidewalk not meeting current design standards. Rural typical section with new inlets and pipes. Permitting through FDOT and SWFWMD.

US 19 and 70th Avenue Intersection, Roadway, Sidewalk and Drainage Improvements (LAP), Pinellas Park, FL

Project Engineer - Project entailed roadway, drainage and intersection analysis, design and permitting. The roadway and intersection improvements will entail adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation / design for cross-slope on each side of the road, sidewalks through driveways, ADA/ramp tie-ins at the intersections at US 19 and Cypress Terrace, signing & pavement markings, safety upgrades and drainage improvements. Also involved permitting through FDOT and SWFWMD.

Clearwater-Largo Road Improvements, Largo, FL

Project Engineer - The project involved over three miles of roadway and drainage improvements. This included local streets and milling and resurfacing of Clearwater-Largo Road. The project included traffic analysis, drainage analysis, drainage design, LID, SWFWMD grant, trail connections, multi-modal, traffic calming, public involvement and coordination.

3rd Street and Avenue B Streetscape Projects, Winter Haven, FL
Engineer of Record - Supervised these two LAP projects with the FDOT preparing plans, specifications and estimate in conformance with FDOT processes, procedures, design standards, PPM and BOE utilizing MicroStation and PowerCivil software. Highly involved in the LAP administration element of these projects working closely with FDOT staff including the design, construction, administration and operations departments. Project elements included reduction of existing roadways to fewer lanes and adding beautification features such as hardscape, landscape and lighting affecting design of existing drainage, signalization, signing/striping and street lighting.

CSX's Logistics Parkway, Winter Haven, FL
Resident Inspection Engineer - Provided third party construction observation for this new road and bridge project as part of the CSX intermodal logistics center located in central Polk County. The task was to oversee this privately permitted, engineered and construction project conforming adherence to the Florida 2010 specification and standards. Responsibilities included documentation of all materials testing, material installation, plan changes, spec interpretation, and project schedule and safety inspections. Project elements included nearly two miles of a four lane divided road utilizing roller compacted concrete, a 250' long bridge, 1500' of MSE wall, substantial earthwork and drainage facilities.

Signalization Installation - U.S. 27 & Crump Road, Town of Lake Hamilton, FL
Engineer of Record/Project Manager - Supervised this safety improvement project along this high volume, high speed urban arterial as part of a JPA with the FDOT and Town. Responsible for the planning, engineering, design and coordination of turn lane improvements, traffic analysis, warrant study, right of way acquisition, signalization design, signing and pavement marking design, FDOT permitting, bidding and construction engineering inspection. Coordinated between State, County, Town, SWFWMD, Contractor and Utility Companies all aspects of project.

Tampa Hillsborough County Expressway Authority - Meridian Avenue from Twiggs Street to Channelside Drive, Tampa, FL
Project Engineer - Designed a six lane widening urban section of roadway as part of a beautification enhancement project for the Tampa Hillsborough County Expressway Authority. Project included coordination with rail road, removal of Kennedy Avenue viaduct, right of way acquisition, streetscaping and significant utility relocations. Responsible for establishment of access management, alignments, profiles, typical sections, super elevations, cross sections and signing and pavement markings.

Interstate 275 & Interstate 4 Widening Projects (Downtown Tampa, Ybor City), FL
Project Engineer - Provided geometric design and analysis of access management for mainline, ramps and interchanges throughout downtown Tampa and Lakeland. Designed alignments, profiles, typical sections, super elevations and cross sections for construction plans and design documentation. Interfaced other design elements into roadway design such as bridge structures, MSE walls, sign structures and drainage systems.

Florida Turnpike Authority - Sawgrass Expressway Widening, Design/Build W. Atlantic Blvd. to Coral Springs Dr., Coral Springs, FL
Lead Engineer - Sub-consultant to contractor for this six lane widening interstate project that included three diamond elevated interchanges, sound walls and time sensitive schedule. Responsible for complete coordination between, contractor and client, widening geometrics and cross sections, drainage design modifications, bridge design coordination, maintenance of traffic and signing and pavement markings. Generated pavement design values, finals plan, specifications and estimates. Interfaced other design elements into roadway design such as signalization modifications and sign structure relocations.

Michael C. Henderson, PE

Refer to Organizational Chart

EDUCATION

MSE, Environmental Engineering; University of Florida (1999)

BS, Civil Engineering; University of Colorado (1989)

PROFESSIONAL REGISTRATIONS

Professional Engineer: PA (#075338, exp. 9-30-17)

CERTIFICATIONS/TRAINING

OSHA, 40-Hr Construction Safety/Health Outreach Training (1983)

PROFESSIONAL AFFILIATIONS

Air/Waste Management Association

Society of Environmental Engineers

American Society of Civil Engineers

EXPERIENCE SUMMARY

Mr. Henderson has over 26 years of experience performing civil, roadway, drainage, utilities, construction management, environmental and hazardous waste management.

He is proficient in stormwater modeling using ICPR, stormwater design and plans preparation using AutoCAD Civil 3D and has completed projects for various governmental, commercial and industrial clients

REPRESENTATIVE PROJECTS

Clearwater-Largo Road Improvements, Largo, FL

Project Engineer - The project involved over three miles of roadway and drainage improvements. This included local streets and milling and resurfacing of Clearwater-Largo Road. The project included traffic analysis, drainage analysis, drainage design, LID, SWFWMD grant, trail connections, multi-modal, traffic calming, public involvement and coordination.

43rd Street Roadway, Drainage, Intersection and Sidewalk Improvements, Tampa, FL

Project Engineer - Project entailed analysis of the drainage and proposed improvements to local streets, intersections, sidewalks to incorporate the proposed improvements. Includes preliminary alternative analysis assessment followed by route recommendations. The alternative analysis included the costs of the drainage and roadway improvements including the necessary intersection and connecting sidewalk improvements. Other aspects include stormwater modeling, CSX crossing, SWFWMD/FDOT permitting, public involvement, probable construction costs, specifications & plans.

DLTWTF Railroad Track and Drainage Improvements, Tampa, FL

Project Engineer - This project involved drainage analysis, drainage design and rehabilitation of the railroad sidetrack. Alternative analysis was completed for the proposed railroad track and drainage improvements. The BMP alternatives included evaluation of storm culverts, additional swale/ditch capacities, additional outfall conveyance and track alternatives. Water quality analysis was also completed for a portion of the basin that had hydric soils and adjacent to a closed land field. All measures were taken to not disturb the land field and minimize wetland impacts. The existing swales were enlarged to provide additional storage and water quality treatment. Probable construction cost estimates were prepared for the alternatives along with conceptual designs. The project also involved coordination with CSX for realignment of tracks, new drainage under the tracks and sidewalk connection to the tracks.

US 19 and 70th Avenue Intersection, Roadway, Sidewalk and Drainage Improvements (LAP), Pinellas Park, FL

Project Engineer - Project entailed roadway, drainage and intersection analysis, design and permitting. The roadway and intersection improvements will entail adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation / design for cross-slope on each side of the road, sidewalks through driveways, ADA/ramp tie-ins at the intersections at US 19 and Cypress Terrace, signing & pavement markings, safety upgrades and drainage improvements. Also involved permitting through FDOT and SWFWMD.

Rowan University College of Engineering – Rowan Hall Addition, Glassboro, NJ
Project Engineer – Responsible for civil design elements associated with the Henry M. Rowan College of Engineering Building which is an addition to Rowan Hall. This project consisted of a 90,500 GSF addition to Rowan Hall for expansion of Rowan's Engineering Degree Programs. Obtained necessary entitlement approvals and permits from state and county jurisdictional agencies. This project required a Flood Hazard Area (FHA) Individual Permit (IP) since a portion of the project fell within the NJDEP regulated flood hazard area. Determined the flood hazard area design flood elevation, designed stormwater treatment, detention and conveyance improvements, and worked closely with NJDEP reviewers to secure necessary permits for the construction of this project in the location desired by Rowan University.

Rowan University College of Business – New Building, Glassboro, NJ
Project Engineer – Responsible for civil design elements associated with the Rowan University College of Business building to be located on Rowan's main campus. This project consisted of a 99,700 GSF building for Rowan's Business Degree Programs. Responsible for the Civil Site Design component of this project as sub-consultant to the prime architect. Secured necessary entitlement approvals and permits from state and county jurisdictional agencies. This project required a Flood Hazard Area (FHA) Individual Permit (IP) since a portion of the project fell within the NJDEP regulated flood hazard area. Determined the flood hazard area design flood elevation, and worked closely with NJDEP reviewers to secure necessary permits for the construction of this project in the location desired by Rowan University.

Claremont Elementary School – Site Design, Franklin, NJ
Project Engineer **-** Assisted in the site design of an approximately 86,000 SF public elementary school project located in Franklin, NJ. Designed stormwater runoff treatment, retention and conveyance improvements to meet strict requirements imposed for projects discharging to Special Water Resource Protection Area. Prepared drawings, specifications, technical reports and permit applications.

Land Port of Entry (LPOE) - Modernization Projects – Various Locations in NY, VT and NM
Project Manager - Prepared civil engineering design documents for construction of replacement Land Port of Entry facilities at border crossings on the Canadian and Mexican Borders as part of a Design Build initiative. Proposed improvements included new 5,000 square foot post buildings with associated hardscape and landscape. Analyzed requirements for vehicular inspections, parking, stormwater management, security and utilities, and submitted conceptual site plans to the client. Conducted hazardous material and asbestos surveys to determine demolition requirements for the existing facility. Prepared survey, detailed demolition, site, grading, soil erosion and utility plans and specifications for use in construction. Interfaced with regulatory agency personnel and prepared permit applications for stormwater, soil erosion, highway utility and non-utility work and wetlands mitigation.

United States Military Academy Preparatory School - Improvements, West Point, NY
Project Manager - Prepared civil engineering design documents included as part of a request for proposal for the design/build of a preparatory school at the United States Military Academy in West Point, NY. Proposed improvements included educational, dining and barracks buildings, three artificial turf athletic fields, parking areas and roadways located over a 25-acre site. Analyzed parking, landscaping, storm water management and lighting requirements and submitted conceptual site plans to the client. Prepared detailed demolition, site, grading, soil erosion and utility plans and specifications for use in construction and obtaining regulatory permits.

Borough of Roselle - Storm Sewer Inspection, Roselle, NJ
Project Manager - Supervised the inspection of the Municipal Separate Storm Sewer System (MS4) of the Borough of Roselle, New Jersey. The project including the visual inspection of over 770 catch basins and 170 stormwater outfalls, during which material condition of system components were assessed and compared against NJDEP requirements. Developed a database which integrated the inspection results with the geographic positioning information of the catch basins and stormwater outfalls for use in mapping software utilized by the client. Assigned overall material condition grades for the catch basins to assist the client in prioritizing necessary repairs. Prepared summary reports and location maps for submittal to the NJDEP and client.

Kriss Kaye, PE, CFM

Refer to Organizational Chart

EDUCATION

MS, Environmental Engineering; University of Central Florida (1993)
BS, Environmental Engineering; University of Central Florida (1991)

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL #50607

CERTIFICATIONS

Qualified Stormwater Management Inspector, FL (#1983)

Certified Floodplain Manager, FL (#US0401320)

TRAINING

Hazardous Communication (2014)

Hazardous Waste Operations. OSHA (2014)

Project Management, Pennoni (2015)

PROFESSIONAL AFFILIATIONS

American Society of Floodplain Managers
Florida Water Environment Association
Assoc. of Groundwater Scientists and Engineers
National Ground Water Association
Florida Eng. Society (FES) Ridge Chapter, Vice President (2003-2005)
American Society of Civil Engineers
National Society of Professional Engineering (NSPE)

HONORS/AWARDS

"Young Engineer of the Year" Award, FL Engineering Society (2001)

EXPERIENCE SUMMARY

Kriss Kaye has over 20 years of experience in drainage design, bridge erosion control, environmental resource permitting, and site grading, drainage & floodplain analysis. He has additional experience in FEMA flood map revisions, NPDES permitting, wetland mitigation monitoring Design and conservation, total maximum daily load reduction design, low impact development design (LID), floodplain analysis, compensation & minimization. Kriss Kaye has prepared more than 200 Environmental Resource Permit applications and has monitored, certified and inspected more than 100 constructed ERP systems.

REPRESENTATIVE PROJECTS

Clearwater-Largo Road Improvements, Largo, FL
Project Manager - The project involved over three miles of roadway and drainage improvements. This included local streets and milling and resurfacing of Clearwater-Largo Road. The project included traffic analysis, drainage analysis, drainage design, LID, SWFWMD grant, trail connections, multi-modal, traffic calming, public involvement and coordination.

Bok Tower Gardens Expansion, Lake Wales, FL
Project Director for design and stormwater permitting of project improvements that included rehab of an onsite lake, artificial state-of-the-art upflow wetland filtration and recirculation system and additional retention systems. Project involved data collection, drainage analysis, plans preparation, coordination and permitting

43rd Street Roadway, Drainage, Intersection and Sidewalk Improvements, Tampa, FL
Project Engineer - Project entailed analysis of the drainage and proposed improvements to local streets, intersections, sidewalks to incorporate the proposed improvements. Includes preliminary alternative analysis assessment followed by route recommendations. The alternative analysis included the costs of the drainage and roadway improvements including the necessary intersection and connecting sidewalk improvements. Other aspects included stormwater modeling, CSX crossing, SWFWMD/FDOT permitting, public involvement, probable construction costs, specifications & plans.

70th Avenue and 66th Street Roadway, Drainage & Intersection Improvements, Pinellas Park, FL
Project Engineer – Project entailed roadway, drainage and intersection analysis, design and permitting. The roadway, drainage and intersection improvements include adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation for safety due to nearby school, sidewalk through driveways, ADA tie-ins at 66th Street, signing & pavement markings, safety upgrades and drainage improvements. Also included replacement of sidewalk not meeting current design standards. Rural typical section with new inlets and pipes. Permitting through FDOT and SWFWMD.

US 19 and 70th Avenue Intersection, Roadway, Sidewalk and Drainage Improvements (LAP), Pinellas Park, FL
Project Engineer - Project entailed roadway, drainage and intersection analysis, design and permitting. The roadway and intersection improvements will entail adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation / design for cross-slope on each side of the road, sidewalks through driveways, ADA/ramp tie-ins at the intersections at US 19 and Cypress Terrace, signing & pavement markings, safety upgrades and drainage improvements. Also involved permitting through FDOT and SWFWMD.

Masterpiece Gardens Expansion, FL
Project Engineer – Prepared a quantitative assessment of stormwater runoff phosphorus concentrations from the pre-development site and a post-development stormwater management and erosion and sedimentation control system design to mitigate phosphorus runoff loads to the Lake Pierce and Lake Okeechobee regional drainage basin as required by the phosphorus Total Maximum Daily Level requirements imposed by the State of Florida.

SE FEMA Hazard Mitigation Grant Program Retrofit, Winter Haven, FL
Project Engineer – Avenue N, SE and 5th Street, SE FEMA Hazard Mitigation Grant Program Retrofit (FEMA No. 1539-112–R); Preparation and permitting (with the Southwest Florida Water Management District) of a stormwater management system design to retrofit an existing single family residential neighborhood drainage system subjected to frequent flooding. This design included a proposed stormwater conveyance and retention system, pumping station and force main.

Spanish Haven Subdivision FEMA Hazard Mitigation Grant Program Retrofit, (FEMA No. 1561-97–R)
Project Engineer – Preparation and permitting (with the Southwest Florida Water Management District) of a stormwater management system design to mitigate flooding within an existing multi-family residential neighborhood situated within a closed drainage basin. This design included a proposed stormwater conveyance to release the flooding and a down gradient 100-year retention/detention system for purposes of storing the outfall runoff.

River Walk Town Center, Dean Erskine Trust, Mulberry, FL
Project Engineer – Performed wetland relocation and mitigation design for approximately 25 acres of onsite for a mixed commercial use development of approximately 156 acres in Mulberry, FL. The site contained significant flood zones and wetlands, as well as unstable soils. Boundary, topographic, and wetland surveying was provided, including setting elevation control and targets for aerial photogrammetry. Approval was obtained for a Conceptual and an Individual Environmental Resource Permit (ERP) from the Southwest Florida Water Management District (SWFWMD) and the US Army Corps of Engineers (ACOE). When constructed, this project should reduce down-gradient flooding for the City of Mulberry and the surrounding area as a result of the large amount of onsite retention/detention volume, which will also provide in excess of 400-acre feet of floodplain storage.

SE FEMA Hazard Mitigation Grant Program Retrofit, Winter Haven, FL
Project Engineer – Avenue N, SE and 5th Street, SE FEMA Hazard Mitigation Grant Program Retrofit (FEMA No. 1539-112–R); Preparation and permitting (with the Southwest Florida Water Management District) of a stormwater management system design to retrofit an existing single family residential neighborhood drainage system subjected to frequent flooding. This design included a proposed stormwater conveyance and retention system, pumping station and force main.

Spanish Haven Subdivision FEMA Hazard Mitigation Grant Program Retrofit, (FEMA No. 1561-97–R)
Project Engineer – Preparation and permitting (with the Southwest Florida Water Management District) of a stormwater management system design to mitigate flooding within an existing multi-family residential neighborhood situated within a closed drainage basin. This design included a proposed stormwater conveyance to release the flooding and a down gradient 100-year retention/detention system for purposes of storing the outfall runoff.

Steven Shealey, PE

Refer to Organizational Chart

EDUCATION

MS. Public Administration; University of South Florida (1998)

BS, Civil Engineering; University of South Carolina (1984)

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL#35626

Professional Engineer: GA #016106

Professional Engineer: MT #34520

Professional Engineer: TN #20281

PROFESSIONAL AFFILIATIONS

Water Pollution Control Federation
Florida Pollution Control Association
American Water Works Association
Florida Engineering Society (FES) Ridge Chapter
National Society of Professional Engineers (NSPE)
American Society of Civil Engineers (ASCE)
Tau Beta Pi
Chi Epsilon
Phi Kappa Phi
Pi Alpha Alpha

HONORS/AWARDS

Engineer of the Year" Award, FL Engineering Society, FES Ridge Chapter (2006)

EXPERIENCE SUMMARY

Mr. Shealey has over 40 years of engineering design, construction management and project management experience. His additional expertise includes preliminary design, design review, design of stormwater systems, water, wastewater, quality assurance, permitting and maintenance of roads and other transportation facilities.

His experience includes work within the Public Sector managing transportation projects as well as design experience on these facilities in the Private Sector.

REPRESENTATIVE PROJECTS

70th Avenue and 66th Street Roadway, Drainage & Intersection Improvements, Pinellas Park, FL

Project Engineer – Project entailed roadway, drainage and intersection analysis, design and permitting. The roadway, drainage and intersection improvements include adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation for safety due to nearby school, sidewalk through driveways, ADA tie-ins at 66th Street, signing & pavement markings, safety upgrades and drainage improvements. Also included replacement of sidewalk not meeting current design standards. Rural typical section with new inlets and pipes. Permitting through FDOT and SWFWMD.

Clearwater-Largo Road Improvements, Largo, FL

Project Manager - The project involved over three miles of roadway and drainage improvements. This included local streets and milling and resurfacing of Clearwater-Largo Road. The project included traffic analysis, drainage analysis, drainage design, LID, SWFWMD grant, trail connections, multi-modal, traffic calming, public involvement and coordination.

43rd Street Roadway, Drainage, Intersection and Sidewalk Improvements, Tampa, FL

Project Engineer - Project entailed analysis of the drainage and proposed improvements to local streets, intersections, sidewalks to incorporate the proposed improvements. Includes preliminary alternative analysis assessment followed by route recommendations. The alternative analysis included the costs of the drainage and roadway improvements including the necessary intersection and connecting sidewalk improvements. Other aspects included stormwater modeling, CSX crossing, SWFWMD/FDOT permitting, public involvement, probable construction costs, specifications & plans.

Reynolds and Main Road & Intersection Improvements, Lakeland, FL

Project Manager - Roadway and Drainage Designer - Handled all of the stormwater modeling and design for this project that resolved long-term road flooding problems along Reynolds Road and made capacity improvements to the Reynolds Road and Maine Avenue intersection. Stormwater runoff from a 600+ acre urban watershed passed through the intersection which is bounded on the north side by a CSX railroad spur. The final design succeeded in separating the upstream urban runoff and passing it through the project without having it impact the stormwater treatment and attenuation systems handling the runoff from the roadway improvements. The CSX railroad spur had to be redesigned and reconstructed to accommodate the geometric and grade improvements to the intersection.

Steven Shealey, PE

Refer to Organizational Chart

10th Street Drainage Improvements, Eagle Lake, FL
Project Director - Assisted the City in obtaining CDBG funding for the project then performed the design and permitting of a mitigation plan for a flood prone neighborhood and stormwater management system retrofit. Improvements included expansion of existing stormwater facilities and a complete re-design of the existing roadway to resolve street and neighborhood flooding issues. This project included critical duration FDOT simulation evaluations, an FDOT Drainage Connection permit and SWFWMD ERP permit for the owners: The City of Eagle Lake and the Florida Department of Transportation.

Stormwater Master Plan, Eagle Lake, FL
Project Manager - Evaluated the City's stormwater facilities, identify areas subject to flooding or with drainage problems, and develop a Master Plan for use by the City to obtain funding for identified projects.

S.R. 17 & C.R. 544 Intersection Improvements, Haines City, FL
Project Director – Responsible for this safety improvement project which was funded as a Joint Project Agreement with the FDOT. He worked closely with the City and Polk County Transportation Planning Organization to acquire congestion management funds for this needed safety improvement project. Responsible for the planning and engineering of an ultimate configuration of junction and adjacent roadways to accommodate future growth and construction of both County and State roadways. Designed and coordinated turn lane intersection improvements, traffic analysis of PD&E report, warrant study and intersection analysis. Project scope required right of way acquisition, geometric design, multi-use trail implementation, drainage design, environmental permitting, signalization design, signing and pavement marking design, FDOT permitting, bidding and construction engineering inspection. Coordinated between State, County, City, SWFWMD and utility companies on all aspects of project.

U.S. 27 and Crump Road Improvements and Signalization, Lake Hamilton, FL
Project Manager - Responsible for this safety improvement project along ta high volume, high speed urban arterial as part of a Joint Project Agreement with the FDOT and Town. He was responsible for the planning, engineering, design and coordination of turn lane improvements, traffic analysis, warrant study, right of way acquisition, signalization design, signing and pavement marking design, FDOT permitting, bidding and construction engineering inspection and coordinated between State, County, Town, SWFWMD, Contractor, and utility companies on all aspects of project.

Stormwater Master Plan, Eagle Lake, FL
Project Manager - Evaluated the City's stormwater facilities, identify areas subject to flooding or with drainage problems, and develop a Master Plan for use by the City to obtain funding for identified projects. The project involved data collection, drainage analysis, drainage modeling, drainage level of service analysis, floodplain analysis and study preparation.

Kelly E. Cranford, PE, ENV-SP

Refer to Organizational Chart

EDUCATION

BS Civil Engineering; University of Florida (1990)

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL (#51899, exp. 2-28-19)

CERTIFICATIONS/TRAINING

Envision Sustainability Professional, Institute for Sustainable Infrastructure (exp. 10-25-20)

Qualified Stormwater Management Inspector, FL DEP (2003, no exp.)

Budget for Project Managers, SFWMD (2011, no exp.)

Value-Based Decision Making Using the Analytic Hierarchy Process, SEBA Solutions, Inc. (2011, no exp.)

Florida Engineering Leadership Institute Alumni (2009)

PROFESSIONAL AFFILIATIONS

Florida Engineering Society, Board Member

FPEG Practice Section Past-Chair, Vice-Chair, Chapter Liaison & Annual Meeting Committee Chair

FES Treasure Coast Chapter Board Member, MATHCOUNTS, co-chair

National Society of Professional Engineers

NSPE Government and Legislative Affairs, Committee Member

Florida Engineering Leadership Institute

HONORS/AWARDS

Engineer of the Year, Treasure Coast Chapter of Florida Engineering Society (2014)

Young Engineer of the Year, Treasure Coast Chapter of Florida Engineering Society (1999)

2017 Fellow Member, Florida Engineering Society (2017)

EXPERIENCE SUMMARY

Ms. Cranford has over 25 years of experience in municipal design, site design and construction management. Prior to joining Pennoni, Ms. Cranford was the Capital Program Manager for the City of West Palm Beach where she gained invaluable understanding of managing funding sources and coordinating with various stakeholders. She was responsible for project development, scheduling, procurement, bidding and implementation of projects under a $40 million bond as well as the City of West Palm Beach 5-year CIP program. For over a decade, Ms. Cranford served as the Regulatory Section Leader at SFWMD where she supervised a team responsible for the review, recommendation of approval, and enforcement of Environmental Resource and Consumptive Use permits. She is very familiar with handling public inquiries regarding projects in both one-on-one and public meetings.

REPRESENTATIVE PROJECTS

Avenue O Corridor Study, Winter Haven, FL

Project Manager – Evaluate urban two-lane roadway for implementation of complete streets concepts and encourage use as an alternative east-west route for users of Cypress Gardens Boulevard. Involved data collection, traffic analysis, traffic modeling, alternatives analysis and concepts evaluation.

Multi-use Path Indian River Lagoon Trace, St. Lucie County, FL

Project Manager - Responsible for design and permitting of a 3.5-mile long, multiuse path along A1A. Design included mitigation for wetland impacts. Permitting through FDOT and SFWMD. Drainage and stormwater quality modeling and design. Design challenges included sediment control devices to prevent vehicles from tracking sand from beach access points onto A1A.

Willoughby Connector Road, Martin County, FL

Project Engineer – Responsible for 1.13-mile new roadway connecting Willoughby, Tower and Salerno Roads. Urban, 4-lane divided section. Design roadway sections, geometry, water, sanitary, stormwater quality, and drainage.

High Meadows/Martin Downs Blvd, Martin County, FL

Project Engineer – Responsible for intersection improvements including turn lanes, median modifications and ADA improvements.

Stormwater Facility Plan, El Portal, FL

Project Manager – Prepare facility plan meeting requirements of Florida Administrative Code 62-503 for village impacted by rising groundwater and surface water elevations. Hydraulic modeling of existing and proposed drainage system utilizing ICPR3. Evaluation of flood plain impacts and anticipated tailwater changes due to climate changes and sea level rise. Coordinate with Miami-Dade County and South Florida Water Management District to ensure proposed projects are consistent with adaptation plan for the area. Hold public meetings to obtain consensus for Level of Service for flood protection and water quality improvements. Develop budget level estimates for plan implementation.

Water Control District – Radial Gate Replacement in Structure S-1, St Lucie County, FL

Project Manager and Engineer of Record – Replacement of four 16-ft wide, 7-ft tall radial gates within Ten Mile Creek. Included field investigation, updating 40-yr. old design to incorporate modern materials, preparation of bid documents, permitting and inspection of

installation. Each gate was designed to hold back approximately 12 feet of water. Construction included installation of a temporary cofferdam upstream of the structure for dewatering of the site.

Water Control District – Gordy Road Structure Rehabilitation, St Lucie County, FL
Project Manager and Engineer of Record – Replacement of four 16-ft. wide, seven-ft. tall radial gates. Included field investigation, updating 40-yr old design to incorporate modern materials, preparation of bid documents, permitting and inspection of installation. Each gate was designed to hold back approximately 16 feet of water. Construction included installation of a temporary cofferdam upstream of the structure for dewatering of the site. Installation of gates was coordinated with SFWMD to accommodate the installation of flow meters downstream.

Conceptual Drainage Plan Revisions, Port St Lucie, FL
Project Engineer - Responsible for revisions to conceptual drainage plan for 4614-acre mixed use development and obtain ERP permit modification through SFWMD. PM and Engineer of Record for serval parcel developments within St. Lucie West. Present proposed projects to the City of Port St. Lucie's site plan review committee. Prepare site plans, roadway and utility design to meet state and local requirements, water quality design, hydraulic modeling, erosion control, plat revisions, construction plans, and construction cost estimating. Certify completed project to South Florida Water Management District, FDEP and City.

Jensen Beach Blvd Baffle Boxes, Martin County, FL
Project Manager and Engineer of Record – Install 12 ft. x 8-ft baffle box to provide water quality treatment for an 18.8-acre urban drainage basin discharging into the Indian River Lagoon. Design incorporated a by-pass for higher volume storm events.

Various Residential Developments, Port St Lucie, FL
Project Manager – Responsible for design and construction of 340 acres including 775 residential units, club houses, over eight miles of new urban roadway, 30 intersections, potable water, sewer and stormwater hydraulic modeling and water quality evaluation. Designs included conceptual modification of St Lucie West master system.

The Florida Club Phase III, Marin County, FL
Engineer of Record and Project Manager – Responsible for design of final phase of development. Included obtaining permits from local government, DEP, and SFWMD for 59 single-family homes within the 415-acre golf course development.

Indian Riverside Park, Martin County, FL
Project Manager - Obtain ERP and consumptive use permits from SFWMD. Finalize design for 42-acre park on the Indian River Lagoon which included new water/sewer and drainage to proposed and existing buildings, rehabilitation/expansion of existing dock to meet ADA standards and current building codes, and creation of a wetland while avoiding impacts to an Indian midden and seagrass beds within the aquatic preserve.

South County Park, Martin County, FL
Project Engineer – Responsible for new 30-acre park including boat ramp, dock, parking and restroom. Design site grading, roadways, water, sanitary and drainage. Included work within flood plain and along aquatic preserve.

Angela M. Garland, PE, PTOE

Refer to Organizational Chart

EDUCATION

BS, Civil Engineering; University of South Florida (1995)

AA, Liberal Arts, Manatee Community College (1990)

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL (#55387, exp. 2-28-19)

Professional Engineer: PA (#086770, exp. 9-30-19)

CERTIFICATIONS/TRAINING

Professional Traffic Operations Engineer (#2428, exp. 5-5-20)

FDOT Work Groups 6.1, 6.2, 7.1, 7.2, 7.3, 13.5, 13.7 (exp. 6-30-18)

PROFESSIONAL AFFILIATIONS

Institute of Transportation Engineers, Administrator, Past President

Florida Engineering Society, Myakka Chapter (Past President)

American Society of Highway Engineers, Tampa Bay Chapter, Past President

EXPERIENCE SUMMARY

Ms. Garland has over 20 years of experience in transportation engineering, traffic operations and planning. She has been a Project Manager/Lead Engineer on numerous Traffic Engineering and Planning Contracts a few of these are listed below. Software expertise includes MicroStation, SYNCHRO, and HCS.

REPRESENTATIVE PROJECTS

Rosery Road Phase I Improvements, Largo, FL
Traffic Engineer – Preliminary traffic analysis and turning movement analysis for the roadway improvements project. The project will involve roadway and drainage improvements including bike lanes, pedestrian safety improvements, intersection improvements, mid-block crossing, drainage improvements, CSX crossing, coordination and extensive public involvement.

Pinellas County MPO Studies, Pinellas County, FL
Project Engineer - Responsible for the quality control of numerous signal warrant studies conducted throughout Pinellas County.

Chain of Lakes Master Plan, Winter Haven, FL
Traffic Engineer – Assisted in the development of the Transportation Memorandum to summarize the existing and future transportation conditions associated with the proposed redevelopment of the City of Winter Haven's Chain of Lakes Park located in Winter Haven, Florida. The memorandum included trip generation, trip distribution, SYNCHRO analysis and evaluation of alternatives for improvements.

Traffic Engineering Studies and Reviews, City of Sarasota, FL
Project Manager - For this project, which involved data collection and the signal redesign at US 41 and Osprey Ave. Also included signal operating plan development, timing calculations, equipment location and pole designs.

General Planning Consultant, Sarasota/Manatee MPO, FL
Subconsultant responsible for data collection, traffic engineering and planning services as needed. Also assisted with a Sarasota County Area Transit (SCAT) inventory project.

Road Program Continuing Services, Sarasota County, FL
Program Manager - Acted as an extension of the County's staff. Provided engineering oversight and administration services for the management of three other consulting firms contracted for design projects. Other contract services included traffic engineering studies, data collection, design and third-party review of traffic impact studies and pre-application methodology meetings. In addition, a 2030 Corridor Analysis was provided along three corridors; McIntosh Road, Bahia Vista to Fruitville Road; Lockwood Ridge Road, Fruitville Road to 17th Street; and Myrtle Street, US 41 to US 301. Analysis included FSUTMS modeling of the Myrtle Street extension, data collection, future growth rate determination, HCS Intersection analysis, HCS Arterial Analysis, and various recommendations for improvements.

Continuing Services, Manatee County, FL
Project Manager - For this contract that involved review of Rezoning Petitions including completeness and final reviews, Special Exceptions, NOPCs, Large and Small Area

Comprehensive Plan Amendments, along with DRI and traffic impact study reviews and various other assistance to County staff.

Traffic Engineering Consultant Services, Collier County, FL
Project Manager - For this project, which includes SR 84/Davis Blvd lighting design, traffic engineering studies and design, data collection, signal retiming and other services.

Districtwide Traffic Studies, FDOT District 1, FL
Subconsultant responsible for traffic studies support and data collection. Completed 58 assignments under this contract.

US 441 and US 27, FDOT District 1, FL
Subconsultant responsible for data collection for intersection re-design.

SR 45 (US 41), Bird Bay Drive to East of Roberts Road, FDOT District 1, FL
Project Engineer - Responsible for the development of six signalized intersections along the corridor, signing and interconnect plans. Provided post design services and post design supplemental services for pedestrian upgrades at Bird Bay.

I-75/US 301/SR 70 Design Build, FDOT District 1, FL
Project Engineer - Responsible for re-design of five signalized locations, sign design and FDOT/contractor coordination.

Districtwide Traffic Engineering, FDOT District 1, FL
Project Engineer - Involved in various traffic operational studies, safety studies, signal inventories, traffic counts, intersection and collision diagrams, crash analysis, signal warrant and intersection analysis, travel time and delay studies, signal timing and implementation plans and pedestrian and bicycle studies.

I-275 Kennedy Off Ramp, FDOT District 7, FL
Project Engineer - Responsible for lighting design for this 2-mile section of roadway widening.

Districtwide Traffic Engineering, FDOT District 7, FL
Project Engineer - Involved in various traffic operational studies, safety studies, signal inventories, traffic counts, intersection and collision diagrams, crash analysis, signal warrant and intersection analysis, travel time and delay studies, signal timing and implementation plans and pedestrian and bicycle studies.

Toll Plaza Parking Lots, Tampa Hillsborough County Expressway Authority, FL
Project Manager - Responsible for the lighting design for the east and west parking lots for the main toll plaza on the Tampa Crosstown.

SR 817/University Drive, FDOT District 4, FL
Project Manager - Responsible for the design of three signals and five intersections requiring pedestrian upgrades and analysis of six additional locations to determine need for mast arm structures. Also included signal operating plan development, timing calculations, equipment location and pole designs.

SR 24 (SW Archer Rd) at SW 23rd Terrace, Alachua County, FL
Project Manager - Responsible for the signal design at this location. Also completed signal design at SW 8th and SW 122nd in Alachua County.

Michael Hooker

Refer to Organizational Chart

EDUCATION
AS, CAD; Florida Technical College (1999)

EXPERIENCE SUMMARY

Mr. Hooker has over 17 years of varied experience in civil engineering design and working with AutoCAD and AutoCAD Civil 3D. He is proficient in the preparation of preliminary designs and construction level drawings for a variety of projects.

His responsibilities include: obtaining and evaluating design data; preparing preliminary and final designs/layouts, plans preparation, quantity takeoffs, cost estimates, and assistance with water, sewer and environmental permitting (SWFWMD, FDOT, Health Department FDEP, ACOE, County, City etc.).

He is also proficient with many engineering programs including AutoCAD Civil 3D, Modret and Hastead methods software for stormwater management systems design analysis.

REPRESENTATIVE PROJECTS

Intersection Improvements, Horizon Church, Haines City, FL
Designer - Prepared site plan geometrics with dimensioning, graded the site, created a final proposed surface (tin) and perform cut and fill calculations using AutoCAD Civil 3d. Drainage structures and piping design. Reviewed shop drawings submitted by the contractor. Water & sanitary sewer structure and piping design. Prepared final construction documents for submission to governing agencies for approval. Perform weekly site visits/construction observation.

Roadway and Grading Improvements - Discovery Academy, Lake Alfred, FL
Designer - Prepared site plan geometrics with dimensioning, widened two frontage roads as required by County Code. Graded the site, created a final proposed surface (tin), cut cross sections and performed cut and fill calculations using AutoCAD Civil 3d. Drainage structures and piping layout design. Reviewed shop drawings submitted by the contractor. Water & sanitary sewer structure and piping design. Prepared final construction documents for submission to governing agencies for approval. Perform weekly site visits / construction observation.

New Supervisor of Elections Facility, Auburndale, FL
Designer – Prepared site plan geometrics with dimensioning, Graded the site, created a final proposed surface (tin) and performed cut and fill calculations using AutoCAD Civil 3d. Drainage structures and piping design. Reviewed shop drawings submitted by the contractor. Water & sanitary sewer structure and piping design. Prepared final construction documents for submission to governing agencies for approval. Perform weekly site visits / construction observation.

Lake Maude Recreation Complex, Winter Haven, FL
Designer – Prepared site plan geometrics with dimensioning, graded the site, created a final proposed surface (tin) and performed cut and fill calculations using AutoCAD Civil 3D. Drainage structures and piping design. Responsible for water & sanitary sewer structure and piping design. Prepared final construction documents for submission to governing agencies for approval. Prepared quantity takeoffs to aid in the bidding process.

Michael Joyce

Refer to Organizational Chart

EDUCATION

Degree, Major; School

BA, Criminal Justice, Polk State College, (2006 – present)

AS, Civil Engineering; Polk Community College (1992)

CERTIFICATIONS/TRAININGS

Judicial Direction I Boundary Determination

Minimum Technical Standards I and II

Global Positioning Satellite Surveying, (GPS)

Geographic Information Systems (GIS)

EXPERIENCE SUMMARY

Mr. Joyce has over 15 years of experience as senior technical specialist providing information on initial bidding, planning, research, preparing data for field crews, finding, sizing, and proving sections based on original government surveys, preparing legal descriptions, researching deeds for title issues, converting GPS information for boundary and photogrammetry, and performing the necessary technical survey calculations. Mr. Joyce also supervises the work of the survey field crews. He has expertise in boundary surveys; topographical surveys; hydrographic surveys; jurisdictional wetland surveys; subdivision plats; construction lay-out; ground controls for GIS network; and 'As-Built' surveys of municipal utility, water/wastewater treatment facility, stormwater management, transportation, and site development projects.

REPRESENTATIVE PROJECTS

Clearwater-Largo Road Drainage Analysis and Improvements, Largo, FL
Project Surveyor – The project involved over three miles of roadway and drainage improvements. This included local streets and milling and resurfacing of Clearwater-Largo Road. The project included traffic analysis, drainage analysis, drainage design, LID, SWFWMD grant, trail connections, multi-modal, traffic calming, public involvement and coordination.

Rosery Road Phase I Improvements, Largo, FL
Project Surveyor – Completed a 3D laser scanning of approximately 1 mile roadway multimodal improvements. The project will involve roadway and drainage improvements including bike lanes, pedestrian safety improvements, intersection improvements, mid-block crossing, drainage improvements, CSX crossing, coordination and extensive public involvement.

CSX Real Property – Improvements and Boundary Survey, Winter Haven, FL
Project Manager – Responsible for the office and field survey work to depict existing improvements and boundary survey with legal descriptions Phase I Site of approximately 295 acres; Phase II Site of approximately 955 acres; and prepared a scaled composite drawing that illustrates the boundary of each parcel, easements, visible site improvements, and adjacent access improvements and will include the legal description for each parcel.

LEGOLAND of Florida – Construction Stakeout and As-builts, Winter Haven, FL
Project Manager – Involved the stakeout and as-builts of the new LEGOLAND of Florida. Performed the office and field survey work to stakeout all the proposed utility infrastructure and site facilities and prepared a scaled drawing illustrating the results of the stakeout, in accordance with minimum technical standards adopted by the State of Florida Department of Business and Professional Regulation.

Discovery Cove Theme Park – Construction Stakeout and As-builts, Orlando, FL
Project Manager – Involved the stakeout and as-builts of the of the new Discovery Cove Orlando, a sister company of SeaWorld Orlando. Performed the office and field survey work to stakeout all the proposed utility infrastructure and site facilities of the dolphin lagoon, freshwater oasis and the grand reef and prepared a scaled drawing illustrating the results of the stakeout, in accordance with minimum technical standards.

Anthony J. Castellone, PE, PTOE

Refer to Organizational Chart

EDUCATION

MBA, Management, University of New Hampshire (1989)

BS, Civil Engineering, University of Rhode Island (1984)

PROFESSIONAL REGISTRATIONS

Professional Engineer: PA (#PE051756E, exp. 9-30-17)

Professional Engineer: VA (#0402052778, exp. 11-30-17)

Professional Engineer: NJ (#24GE04737400, exp. 4-30-16)

Professional Engineer: MD (#37070, exp. 7-8-17)

Professional Engineer: OH (#60972, 12-31-17)

Professional Engineer: WV (#013155, exp. 12-31-16)

Professional Engineer: FL (#42506, exp. 2-28-17)

Professional Engineer: RI (#5838, 6-30-17)

CERTIFICATIONS/TRAININGS

Professional Traffic Operations Engineer (PTOE)

Project Management, Pennoni (2015)

PROFESSIONAL AFFILIATIONS

Institute of Transportation Engineers (ITE) (Fellow), TSMO Executive Council (2013-2015), President, Mid-Atlantic (2003)

Intelligent Transportation Society of Pennsylvania (ITSPA), Board of Directors (2006-2014), Secretary (2013-2014)

American Society of Highway Engineers (ASHE), Pittsburgh Board of Directors (2009-2015), 1st Vice President, Pittsburgh (2014-2015), President, ASHE-Pittsburgh (2015-2016)

HONORS/AWARDS

ASHE-Pittsburgh President's Award (2014)

Steering Committee, Penn State Transportation Engineering & Safety Conference (2008 - 2015)

EXPERIENCE SUMMARY

Mr. Castellone has over 30 years of experience in conceptual, preliminary and final engineering design including Intelligent Transportation System (ITS), drainage, traffic, signals, S&PM, procurement and construction monitoring, corridor analysis and optimization, capital improvement plan development and management, traffic congestion mitigation measures, traffic calming plan development and implementation, and transportation planning studies and modeling. Mr. Castellone's knowledge includes DOT specifications and policies, as well as familiarity with the latest Highway Capacity Manual methodologies, software packages such as HCS, Synchro/Simtraffic, Autoturn and GuidSign.

REPRESENTATIVE PROJECTS

Clearwater-Largo Road Improvements, Largo, FL

Project Manager - The project involved over three miles of roadway and drainage improvements. This included local streets and milling and resurfacing of Clearwater-Largo Road. The project included traffic analysis, drainage analysis, drainage design, LID, SWFWMD grant, trail connections, multi-modal, traffic calming, public involvement and coordination.

70th Avenue and 66th Street Roadway, Drainage & Intersection Improvements, Pinellas Park, FL

Project Engineer – Project entails roadway, drainage and intersection analysis, design and permitting. The roadway, drainage and intersection improvements include adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation for safety due to nearby school, sidewalk through driveways, ADA tie-ins at 66th Street, signing & pavement markings, safety upgrades and drainage improvements. Also replacement of sidewalk not meeting standards. Rural typical section with new inlets and pipes. Permitting through FDOT and SWFWMD.

US 19 and 70th Avenue Intersection, Roadway, Sidewalk and Drainage Improvements (LAP) – Pinellas Park, FL

Project Engineer - Project entails roadway, drainage and intersection analysis, design and permitting. The roadway and intersection improvements will entail adding a left turn lane, signal modifications, roadway widening, sidewalk evaluation / design for cross-slope on each side of the road, sidewalks through driveways, ADA/ramp tie-ins at the intersections at US 19 and Cypress Terrace, signing & pavement markings, safety upgrades and drainage improvements. Also permitting through FDOT and SWFWMD.

Park Street Signal and Intersection Improvements, Jacksonville, FL

Principal Engineer of Record – Project included the design of mast arm, supported overhead school flashers and three complete intersection re-designs.

New Berlin Road Signalization Improvements, Jacksonville, FL

Principal Engineer – Prepared signalization plans for four intersections, including updating and revising the City's Steel Pole & Mast Arm Specifications and Details.

Sadler Road/14th Street Intersection Improvements, Nassau County, FL

Principal Engineer – Responsible for the signing, striping, geometric design, and signal design and field inspection of four intersections. Used SOAP84 and 1985 Highway Capacity Manual microcomputer programs, as well as critical lane movement analyses, to develop intersection lane configurations, storage requirements, and initial signal timings.

Anthony J. Castellone, PE, PTOE

Refer to Organizational Chart

New Berlin Road Roadway Improvements, Jacksonville, FL
Principal Engineer – Responsible for the geometric design of a suburban arterial. Responsibilities included development of a typical section, pavement design, vertical profile and horizontal alignment to provide for the expansion of 1.2 miles of two lane rural roadway to five lanes with curb and gutter.

Computerized Traffic Signal Systems, West/Central/South FL
Senior Traffic Engineer – Responsible for Construction Engineering & Inspection (CEI) projects in Broward County (UTCS), Lakeland (hybrid Closed Loop) and Winter Haven (Closed Loop), Florida. Project Manager for expansion of Palm Beach County's Computerized Traffic Signal System. Responsible for submission requirement tracking, on site intersection design modifications, and system timing plan reviews for the expansion of these computerized traffic signal systems.

Signal Retiming, Jacksonville, FL
Project Engineer - Performed a complete system analysis for several principal arterials. Responsibilities ranged from extracting controller-timing settings to development of system timing parameters using PASSERII. Heavy emphasis was placed on field observation, timing implementation and fine-tuning to accommodate several different time of day plans.

Atlantic Boulevard, Jacksonville, FL
Project Engineer - Coordinated traffic flow for 11 signals along this heavily traveled commuter route. A unique set of dual peak plans were developed to accommodate the bi directional peak hour traffic caused by an overlap in CBD commuter traffic and traffic associated with the nearby Mayport Naval Base. Responsible for the complete preparation of final timing reports and physical recommendations to improve system performance.

UTCS Upgrade, Jacksonville, FL
Project Engineer - Performed the field inspection and documentation of 144 traffic signals; for a project to upgrade the city's UTCS traffic control system. Inspection included the coaxial cable plant as well as the traffic signals themselves.

IVHS Technology, Broward County, FL
Project Engineer - Involved in the design of Maintenance of Traffic for the Country's first "in field" testing of AVI system components by a variety of vendors. The testing and observation on the Sawgrass Expressway spanned a period of twelve weeks.

C. Wayne Sweikert, PLS

Refer to Organizational Chart

PROFESSIONAL REGISTRATIONS

Professional Land Surveyor: DE (S60000731, 6-30-17)

TRAININGS

Land Surveying, Route/Construction Surveying

Evidence & Procedures for Boundary Determination

Spreadsheet & Database Design and Mass Communications, Mercer, Burlington, Gloucester County Community Colleges and Stockton State College

Numerous Seminars and Workshops relating to Geographic Information Systems development

Computer Aided Design using ESRI, AutoDesk and Bentley applications

PROFESSIONAL AFFILIATIONS

New Jersey Society of Professional Land Surveyors, CSSA Chapter

Pennsylvania Mapping and Geographic Information Consortium

HONORS/AWARDS

American Council of Engineering Companies of Pennsylvania

Diamond Honor Award for Surveying and Mapping, Betsy Ross and Commodore Barry Bridges (2005)

EXPERIENCE SUMMARY

Mr. Sweikert has over 40 years of experience in project management and technical engineering design of Civil / Site and Municipal projects. This included project management, coordination and preparation of boundary, land title, topographic survey, construction layout, utility and as-built surveys, the development and implementation of geographic information systems (GIS) applications, as well as Computer Operations and Network Management. Mr. Sweikert's broad design experience includes Major and Minor Site Planning and Subdivision development, Municipal improvements, roadway design, hydrology, drainage investigation and remediation reporting, grading design, construction observation and preparation of approval and construction documents and project specifications. His experience in Information Technology Management includes the design, construction, and implementation of complete Unix and Windows based computer networking systems at multiple sites, with wide area networking and redundant backup capabilities, engineering and CADD application customization, as well as the on-going management and maintenance of hardware/software.

REPRESENTATIVE PROJECTS

South Central Park Roadway, Drainage, Streetscaping and Park Improvements, Winter Haven, FL

Project Manager – Project entailed utility, hardscape, streetscape, and roadway design efforts for the City's hallmark phase of its multi-year downtown improvement project slated for the City's South Central Park, which encompasses frontage along 7 City blocks. Improvements included interactive splash pad, band shell, planters, kiosks, drainage, parking, re-alignment of the dangerous Magnolia intersection and paving improvements.

Streetscape Design Visualization of NE 18th and NE 127th Streets, North Miami, FL

Project Manager – Responsible for the coordination of Conceptual Streetscapes for portions of two separate streets. Pennoni was tasked with creating design concepts to improve existing streets with relatively simple and maintenance free enhancements. This included features like curvilinear arrays of native plantings and stone paver parking areas and sidewalks. To minimize cost, aerial terrestrial imagery was used and overlaid with the CADD design concept for delivery to our Design Visualization Studio professionals, who incorporated the design concepts into realistic visual three-dimensional representations of the proposed designs. Finally, 3D Color Renderings were produced to represent the Conceptual Design in a realistic view. This visualization was utilized by our client in marketing efforts to the City of North Miami.

South Central Park Design Visualization, Winter Haven, FL

Project Manager – Responsible for the coordination of multiple disciplines from High Definition 3D Laser Scanning (HD3D) to the Concept Plan development, using SiteOps software to construct the proposed design framework, overlay of the CADD design concept onto the scan surface, and development of an animated video by our Visualization professionals, incorporating the design concepts into a realistic video fly-thru to provide a visual three-dimensional representation of the proposed design to the City of Winter Haven. This visualization project led to the award of final design of the South Central Park Improvements Project to Pennoni for full construction document design.

Tennis Facility Improvements Design/Build, Winter Haven, FL
Project Manager - Responsible for survey data collection and research of design concepts to raze and reconstruct an existing tennis court facility as a state-of-the-art clay court facility with a new club house featuring an observation deck and overhead canopy to provide shade for observers. This included coordination of design staff and providing design guidance to provide upgrades to existing area utilities included extending a water main across an existing City street via directional bore to avoid open cutting the pavement, collecting stormwater runoff from extremely flat (0.28% slope) clay tennis courts, development of 4 new pickle ball courts, and the expansion of an existing stormwater management swale system to satisfy Southwest Florida Water Management District (SWFWMD). The clay courts have a continuously operating underground irrigation system to maintain the court surfaces at the correct moisture levels. We teamed with a contractor, and architect, and an experienced clay tennis court consultant for this endeavor

Pearl Street Bicycle & Pedestrian Improvement Project, Camden, NJ
Project Manager – Responsible for design development, detailing, construction documents and specifications for a 'streetscape' bicycle and pedestrian improvements. The design parameters included new bulkhead sidewalk widening and brick paver enhancements, decorative lighting, and detailed handicap ramp improvements. Fast tracking of the project as an FHWA TIGER grant for the 2011 Transportation Capital Program provided an interesting challenge that met with success.

Richard Stockton College Traffic Circulation/ Roadway Improvements, Atlantic County, NJ
Assistant Project Manager – Responsible for the coordination, data collection, roadway improvement design and plan preparation for various traffic circulation and safety improvements on-campus. The major improvements included relocation and realignment of the main entrance drive, multi-lane widening and surface improvements along the primary frontage road, profile adjustment and surface and drainage improvements for an 1800 foot long internal bypass route from the primary entrance corridor to the dormitory parking area, widening of the entrance roadway and design of a new left turn lane to provide for safer access to the bypass connector, relocation of approximately 800 feet of a sanitary sewer force main, and coordination and integration of traffic signal control plans for the main entrance road intersection with the frontage road. We were also responsible for construction administration and oversight, as well as construction observation.

Salem Community College - Site Improvements, Carney's Point, NJ
Project Manager – Responsible field observation, data collection and research to determine safety improvements required for ADA Compliance, general pedestrian safety, and exterior site security at this rural Community College. Parking expansion, traffic circulation, handicap accessibility improvements, additional security lighting, and an enhanced, centralized pedestrian cross-campus corridor were determined to be the primary improvements required to provide a safe, ADA compliant and student friendly environment. Several off-site campus areas were also studied and similar improvements were recommended.

Drainage Investigation and Remediation Report, Marmora, NJ
Project Manager – Responsible for the site drainage investigation to determine cause of interior flooding at bank Branch office. Investigation included partial site topographic survey, building interior survey to determine elevations based on North American Datum 1988, water pressure testing, site and adjoining areas inspection for utilities, and soil borings to determine ground water elevations. A report was generated indicating findings of fact, conclusions drawn from the evidence, and recommendations for remediation of the drainage problem.

Geographic Information System, Aston Township, Municipal Authorit, PA
Project Coordinator – Responsible for creation of a working Geographic Information System linking tax parcel mapping to specific data from the SWDCMA customer database to determine appropriate billing rates, number of connections duration of service, and to discover unrecorded connections and create a spatial definition of the SWDCMA service areas. This project resulted in the recovery of significant fee revenues from previously unrecorded connections and provided the first official mapping of service areas.

Beth L. Evans, AICP, LEED AP

Refer to Organizational Chart

EDUCATION

BS, Social Sciences, University of Florida (1982)

CERTIFICATIONS/TRAININGS

Certified Environmental Property Assessor (1993)

American Institute of Certified Planners (AICP) (1994)

LEED Accredited Professional (2008)

PROFESSIONAL AFFILIATIONS

Phi Kappa Phi National Honor Society

American Planning Association

APA, Heart-of-Florida Section of Florida Chapter (1994-Present) Vice Chairman (1998)

American Institute of Certified Planners (AICP)

Polk Museum of Art, Board of Directors (2005-2008)

Polk County Central Florida Development Council Board Member (2008-2012)

Polk County Land Development Code Advisory Committee

Polk County Leadership Alumni (2012)

Polk County Planning and Development Efficiency Task Force (2015-Present)

Housing Finance Authority of Polk County (2010-Present)

Main Street Haines City Board of Directors (2010-2012) Vice Chair (2011-2012)

Haines City Economic Development Council Board Member (2014-Present)

Main Street Winter Haven Board of Directors (2003-2008) President (2005) and Design Committee Chair (2003-2007)

Winter Haven Leadership Alumni (2011)

EXPERIENCE SUMMARY

Mrs. Evans has over 30 years of experience in planning, project management, site development evaluations, growth management information services and land use feasibility and compatibility analyses. She has additional experience in Impact Assessment Statements, land use and zoning changes, comprehensive plan amendments and Public presentations. She has assisted in LEED certification process for applicable projects and served as a governmental liaison, provided QA/QC of technical documents and community outreach. She has shepherded many land use and zoning change projects through the approval process over the years and maintains close working relationships with local and State planning agency staff and board members.

REPRESENTATIVE PROJECTS

Utilities Ordinances Preparation, Polk County, FL

Project Manager - Spearheaded services of utilities ordinance preparation, rate and charge studies, and financial programs. This work has included the development and implementation of a pre-paid connection fee program, the preparation of several rate and charge studies and updates, and a complete overhaul of the Polk County Utilities Ordinance and associated technical, development coordination, and administrative manuals. Mrs. Evans prepared and processed a pair of text and map Comprehensive Plan Amendments to create a new land use category for utility-type facilities and to properly map over 20 of Polk County's major utility facilities with the new land use category.

Logistics Parkway Utilities Improvements, Winter Haven, FL

Construction Observation Field Representative - Responsible for the backbone water, wastewater, and reclaimed water utility system improvements constructed along the newly completed Logistics Parkway that serves the new CSX Intermodal Facility in Winter Haven. Mrs. Evans coordinated closely with the City Utilities Department and the contractor, provided weekly observation services, prepared Construction Reports, processed Requests for Information, Shop Drawing submittals, and Change Orders, prepared the Final Punch List, observed the bacteriological and pressure testing and line pigging, reviewed As-Built Surveys, and processed the final certifications with the permitting agencies for this project. Mrs. Evans also coordinated the efforts of the City's environmental consultant to conduct listed species surveys and relocation/mitigation efforts, due to the presence of Gopher Tortoises discovered along the right-of-way and utility line corridor.

Joshua Water Control District - District Engineering Services, DeSoto County, FL

Project Manager - Responsible for the Joshua Water Control District, a Chapter 298 District which encompasses 42 square miles of citrus groves in DeSoto County. Mrs. Evans managed the work of the District Engineer; prepared and processed Annual Reports, Water Use Permit renewals, Water Control Plans, GIS mapping, tax rolls, and internal permit reviews; and reported to the Board of Supervisors at meetings.

Water Distribution System Improvements, Mulberry, FL

Resident Project Representative - Responsible for 25 miles of new water distribution line improvements constructed within the residential core of the City of Mulberry. This infrastructure improvement project was funded by the City in cooperation with the US Department of Agriculture (USDA) grant funding program. As the City's and USDA's field representative, Mrs. Evans coordinated closely with the City Utilities Department and the

contractor, provided daily observation services, prepared Construction Reports, processed Requests for Information, Shop Drawing submittals, and Change Orders, prepared the Final Punch List, observed the bacteriological and pressure testing, reviewed As-Built Surveys, and processed the final certifications with the permitting agencies for this project.

County Water Reuse Study/Grant Application, Polk County, FL
Project Manager - Supervised the Polk County Water Reuse Study and prepared and successfully processed several SWFWMD Cooperative Funding grant applications for beneficial reuse projects. The purpose of this Study was to conceptually determine the physical and economic viability of implementing a regional or sub-regional water (wastewater) reuse plan in the Polk County area. Because of increasing water demands and decreasing water resources in Polk County and its environs, the Study focused on the "beneficial" aspect of reclaimed water reuse, which is defined as a use of reclaimed water which replaces or reduces an existing or future withdrawal from the Floridian Aquifer. This Study was funded by SWFWMD, Tampa Electric Company, Florida Power, City of Lakeland, and Polk County. Data collection for this Study was accomplished by surveying the wastewater treatment plant owners/operators (potential reclaimed water producers) and major water users in the Study Area, including citrus processors, phosphate mining and processing operations, and electric power generation facilities. Questionnaires, meetings, telephone conversations, and task force meetings were utilized to gather information regarding who produces water for potential reclaiming, and who needs reclaimed water. Based on the information gathered, we developed conceptual reuse scenarios which met the needs of the identified producers and users and complied with the regulatory framework, and prepared schematics and capital cost estimates of the candidate reuse scenarios. As a result of this Study, several reclaimed water reuse projects were implemented by the users and producers, including Polk County and the cities of Mulberry, Fort Meade, Bowling Green, Lake Wales, Haines City, Winter Haven, and Lakeland. In addition, several of these projects received grant funding from SWFWMD's Peace River Basin Board Cooperative Funding Program.

Site Assessment Study for New Performing Arts Center/Recreation Complex, Winter Haven, FL
Project Manager - Mrs. Evans supervised the efforts of in-house staff with our sub-consultant, Court street Partners, to assist the City and the City's consulting architect by conducting a site assessment and analysis to identify, assess, and make site recommendations for these critical municipal facilities. A total of 14 sites were identified and assessed as a result of an extensive six-month collaborative process and input obtained from the public, stakeholders, user groups, and the City. Outreach efforts included stakeholder meetings, public surveys and interactive public planning meetings, and presentations to the City. A set of criteria were developed along with a point ranking and weighting system, which was used to evaluate the candidate sites and prepare a final report of recommendations and data for the City's use in prioritizing the dynamic needs of the City, refining budgets, and conducting further due diligence and analysis in selecting the best fit site for each facility.

Lake Maude Recreational Complex Master Planning, Winter Haven, FL
Project Manager – Assisted in a planning effort for the Lake Maude Recreation Complex to be located south of the Polk State College campus and adjacent to the Lake Maude Nature Park. The City desires to design and construct a neighborhood recreational facility that will complement the existing recreational facilities in the area and include practice and game fields and support facilities for local youth football as the initial phase of development. Depending on funding and availability of land, other potential uses are being considered such as a diamond-plex sports facility, recreational trails to connect to the adjacent nature park, a skate park, a playground, picnic pavilions, canoe and fishing amenities, and/or future utility facilities. In order to define the first development phase plan and determine what other facilities should be incorporated during future design efforts, the City retained us to conduct a publicly vetted programming and master planning process to include community surveys, stakeholder interviews, and public presentations and workshops to result in the identification of the most appropriate components for the proposed park and a Final Master Plan showing a suitable layout for the components selected.

Steven L. Elias, PE

Refer to Organizational Chart

EDUCATION

MS, Environmental Engineering, Penn State University, University Park, PA (1993)

BS, Civil Engineering, Penn State University, University Park, PA (1991)

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL (#50734, exp. 2-28-17)

CERTIFICATIONS/TRAININGS

Project Management, Pennoni (2015)

Hazardous Communications, ERCS, Inc. (HCOM-147914, no exp.)

PROFESSIONAL AFFILIATIONS

Florida Eng. Society (FES); Ridge Chapter (1998 – present) President (2001-2002)

American Society of Civil Engineers, 1997 - Present

National Society of Prof. Engineers, 1997 - Present

Winter Haven Rotary Club (2000 – Present)

Polk Vision; Economic Development. Team (2007 – Present)

Winter Haven Economic Council, Treasurer (2011 – 2014) - Vice Chair (2014 – Present)

Public Ed. Partnership STEM Comm. 2013-Present

FES Ridge Math Counts Chair 2000 - 2010

Leadership Winter Haven Class 34, 2013-14

HONORS/AWARDS

Changemaker" Award, Rotary Zone 34, (2011-12)

"Changemaker" Award, Rotary District 6890 (2011- 12)

"Rotary Club President of the Year", District 6890 (2011-12)

"Rotarian of the Year", Winter Haven Rotary Club (2009)

"Young Engineer of the Year" Award, FL Engineering Society (FES) Ridge Chapter (1999)

EXPERIENCE SUMMARY

Mr. Elias has over 25 years of experience in municipal and environmental engineering. He assists municipalities with master planning and obtaining grant/loan funding from various Agencies for strategic community infrastructure. His efforts have resulted in over 170 million in grant and loan funding assistance to Florida municipalities over the past decade.

He also has extensive expertise with water/wastewater and other municipal infrastructure design in Florida as he oversees City Engineer/utility planning services for 14 municipalities. This also includes planning and engineering review efforts, expert witness for eight eminent domain easement cases.

REPRESENTATIVE PROJECTS

South Central Park Roadway, Drainage, Streetscaping and Park Improvements, Winter Haven, FL

Project Director – Project entailed utility, hardscape, streetscape, and roadway design efforts for the City's hallmark phase of its multi-year downtown improvement project slated for the City's South Central Park, which encompasses frontage along 7 City blocks. Improvements included interactive splash pad, band shell, planters, kiosks, drainage, parking, re-alignment of the dangerous Magnolia intersection and paving improvements.

Ave B Streetscaping and Multi-Purpose Trail, Winter Haven, FL

Project Director - Project entailed survey, design, permitting, and construction engineering for a 3300-foot section of Ave. B NW along 8 City blocks to complete the major east-west corridor of the City's comprehensive trail system through downtown and connecting the Chain of Lakes Trail to the Lake Howard trail. Project intent of this FDOT LAP-funded project was to achieve an enhanced 2-way 2 lane pedestrian friendly complete streets corridor with pedestrian signalization, an 8-foot wide trail, and numerous urban amenities, landscaping, and aesthetic upgrades to improve safety, promote economic development, and consider all modes of travel.

3rd Street and Avenue B Streetscape Projects, Winter Haven, FL

Engineer of Record – Project entailed LAP, FDOT, roadway, drainage, trail, streetscape, landscaping, signalization, signing/striping and street lighting. Included data collection, stormwater modeling, water quality and permitting.

Roadway and Drainage Reviews, Fort Meade, FL

Project Director - Assisted City in reviewing proposed development projects for general compliance with the City's land Development Code and sound engineering and surveying practices for transportation, drainage, and utility infrastructure. Services included reviewing proposed development plans, City master planning documents, traffic studies, City Codes and development policies, Florida Greenbook and other roadway design Standards, and providing written feedback on proposed infrastructure improvements. Specialized support services included assisting City in negotiating capital improvement contributions to help ensure developers proportionately paid their fair share of improvements caused by their project impacts.

Roadway, Drainage, Traffic Study Reviews, Lake Hamilton, FL

Town Engineer/Project Director - Assisted City in reviewing 7 proposed residential and commercial development projects for general compliance with the City's land Development Code and sound engineering and surveying practices for transportation, drainage, and utility infrastructure. Services included reviewing proposed development plans, City master

planning documents, traffic studies, City Codes and development policies, Florida Greenbook and other roadway design Standards, and providing written feedback on proposed infrastructure improvements. Specialized support services included assisting City in negotiating capital improvement contributions to help ensure developers proportionately paid their fair share of improvements caused by their project impacts.

Roadway, Drainage, Traffic Study Reviews, Dundee, FL
Town Engineer/Project Director - Assisted City in reviewing 34 proposed residential and commercial development projects for general compliance with the City's land Development Code and sound engineering and surveying practices for transportation, drainage, and utility infrastructure. Services included reviewing proposed development plans, City master planning documents, traffic studies, City Codes and development policies, Florida Greenbook and other roadway design Standards, and providing written feedback on proposed infrastructure improvements. Specialized support services included preparing a traffic impact fee study, written traffic study methodology standards, and proportionate fair share criteria improvements in conjunction with Traffic Planning Design, Inc. to help ensure developers proportionately paid their fair share of improvements caused by their project impacts.

Roadway, Drainage, Traffic Study Reviews (City's Engineer), Haines City, FL
Project Director - Assisted City in reviewing 64 proposed residential and commercial development projects for general compliance with the City's land Development Code and sound engineering and surveying practices for transportation, drainage, and utility infrastructure. Services included reviewing proposed development plans, City master planning documents, traffic studies, City Codes and development policies, Florida Greenbook and other roadway design Standards, and providing written feedback on proposed infrastructure improvements. Specialized support services included assisting City in negotiating capital improvement contributions to help ensure developers proportionately paid their fair share of improvements caused by their project impacts.

MS4 Stormwater NPDES Annual Reporting and Master Planning, Fort Meade, FL
Project Director – Responsible for annual compliance assistance and reporting as part of the City's Municipal Separate Stormsewer System permit with EPA and Florida DEP. Services include assisting City staff in complying with annual Permit compliance activities, record keeping, coordinating and attend co-applicant meetings with Polk County (lead permit entity), infrastructure mapping and inventory, annual report preparation, and FDEP audit supports services

MS4 Stormwater NPDES Annual Reporting and Master Planning, Eagle Lake, FL
Project Director – Responsible for annual compliance assistance and reporting as part of the City's Municipal Separate Stormsewer System permit with EPA and Florida DEP. Services include assisting City staff in complying with annual Permit compliance activities, record keeping, coordinating and attend co-applicant meetings with Polk County (lead permit entity), infrastructure mapping and inventory, annual report preparation, and FDEP audit supports services.

MS4 Stormwater NPDES Annual Reporting and Master Planning, Dundee, FL
Project Director – Responsible for annual compliance assistance and reporting as part of the City's Municipal Separate Stormsewer System permit with EPA and Florida DEP. Services include assisting City staff in complying with annual Permit compliance activities, record keeping, coordinating and attend co-applicant meetings with Polk County (lead permit entity), infrastructure mapping and inventory, annual report preparation, and FDEP audit supports services.

MS4 Stormwater NPDES Annual Reporting and Master Planning, Lake Hamilton, FL
Project Director – Responsible for annual compliance assistance and reporting as part of the Town's Municipal Separate Stormsewer System permit with EPA and Florida DEP. Services include assisting City staff in complying with annual Permit compliance activities, record keeping, coordinating and attend co-applicant meetings with Polk County (lead permit entity), infrastructure mapping and inventory, annual report preparation, and FDEP audit supports services.

Roger L. Homann, PE

Refer to Organizational Chart

EDUCATION

BS, Mechanical Engineering, Purdue University (1989)

PROFESSIONAL REGISTRATIONS

Professional Engineer, GA (#29583, exp. 12-31-16)

Professional Engineer, AL (#33077, exp. 12-31-17)

CERTIFICATIONS/TRAININGS

Certified Master Modeler, Haestad Methods WaterCAD (2003)

Groundwater Vistas Groundwater Model Training, Jim Rumbaugh (Groundwater Vistas software author) (2003)

District-Wide Regulation Model Training, Southwest Florida Water Management District and Jim Rumbaugh (DWRM model author) (2006)

Water Well Performance: The Economic Basis for Water Well Operation, Rehabilitation & Maintenance Decisions, American Ground Water Trust (2008)

District-Wide Regulation Model Training Updated, Jim Rumbaugh (DWRM model author) (2009)

EXPERIENCE SUMMARY

Mr. Homann has over 25 years of experience with expertise in municipal engineering, environmental remediation, and permitting. Mr. Homann has expertise in civil, environmental, and hydraulic engineering design, project management, permitting, and construction management. His experience includes but is not limited to: utilities master planning, wastewater collection system design, water production well design, municipal water treatment plant design, water distribution system modeling/design, aquifer testing and data analysis (over 30 aquifer pumping tests performed), groundwater modeling (over 25 well sites modeled), water use permitting, grant/loan application and administration, groundwater/soil remediation system design, vapor recovery system design, and air permitting.

REPRESENTATIVE PROJECTS

Florida Department of Environmental Protection - Various FDEP funded Petroleum Restoration Program Projects in South & Central Florida

Project Manager – Responsible for ongoing soil and groundwater assessment, monitoring, and remediation (as applicable) for 90 petroleum contaminated sites in central and south Florida as an Agency cleanup contractor for the Florida department of Environmental protection under the Petroleum Restoration Program. Services include coordination of drilling, sampling, testing and assessment of contaminated sites, preparing assessment, monitoring reports, and remedial action plans, and implementing remedial action plans for soil and groundwater treatment and remediation.

Holly Hill Petroleum Contamination Assessment and Remedial Action Plan, Avon Park, FL

Project Manager – Responsible for soil and groundwater assessment, preparing source removal Remedial Action Plan, and RAP implementation (soil/groundwater removal and treatment for former underground storage tank facility supporting orange grove operations. Services included, but not limited to design and coordination of monitoring well installation, soil and groundwater contamination assessment, perform hydrogeological and hydro geochemical evaluation, prepare source removal plan, implement soil excavation and groundwater treatment, soil and water quality testing, and post-remedial quarterly monitoring.

Petroleum Remedial Action Plan and Implementation, Zaxby's, Winter Haven, FL

Project Manager – Responsible for soil and groundwater treatment of petroleum contaminated site to facilitate construction of new Zaxby's restaurant. Services included water and soil testing, updating Contamination Assessment Report, preparing Remedial Action Plan (RAP), excavation and treatment of 6,326 tons of contaminated soil, portable treatment of 4.4 million gallons of contaminated groundwater, and post-cleanup groundwater monitoring and reporting to FDEP.

CLH S.A. - Remediation System, Barcelona, Spain

Project Manager – Joint venture with Spanish firm Retailgas, S.A. for contamination assessment, remedial system design, construction management, and remedial system O&M of a large scale multi-phase extraction system for free product removal at a bulk petroleum storage facility. The project included a large vacant parcel, which was a brownfield site slated for re-development following achievement of site cleanup goals. The project included a free

product plume of >30 acres, which had impacted the local sanitary sewer system surrounding the facility. The installed system ultimately allowed the recovery of >250,000 gallons of petroleum product.

Former Hart Oil Bulk Plant - Remediation System, Winter Haven, FL
Project Manager - For environmental site assessment, remediation system design, construction management, and remedial system O&M at former petroleum bulk storage facility. The groundwater contamination plume was determined to be approximately 40,000 square feet at the site. An expedited cleanup was desired by the site owner to allow planned development of the property. Site cleanup was conducted under the FDEP's Pay for Performance Program. A high-flow air sparging/vacuum extraction system consisting of mobile equipment was used to initially achieve cleanup goals after only two months of operation. An additional one month of limited remediation system O&M to address minor contamination rebound was later conducted, and the site was subsequently developed.

"C "Street Sewer and Pumping Station Rehabilitation, Lake Wales, Florida
Project Manager – Responsible for preliminary design, final design, permit, funding application preparation (CDBG and FDEP SRF), Eminent Domain, and construction services for substandard clay pipe sewer replacement and master pumping station upgrades for 53 block sewer system. Several existing lines were relocated due to substandard construction and lack of utility easements, which required extensive Eminent Domain support services. Phase 1 (approximately 25% of total project) was constructed in 2014 via CDBG grant funding, while Phase 2 construction began in 2016 with FDEP SRF funding assistance.

Wastewater/Reuse Master Plan, Hardee County, FL
Project Manager – Responsible for wastewater and reuse master planning to accommodate several planned development projects and other customer growth within the County's services area. Reuse master planning was performed to facilitate phased implementation of public access reuse water that would be made available via the County's planned treatment plant upgrades. Specific tasks included population and flow projections, wastewater infrastructure mapping, hydraulic modeling, and preparing phased capital improvement plan to help ensure system improvements would be implemented in a logical and systematic manner to meet five and ten-year planning projections.

USDA Pumping Station Replacements (5 stations), Eagle Lake, FL
Project Manager – Responsible for the design of 5 new pumping stations to replace existing City wastewater pumping stations that are failing and in need of replacement. Design of the project included analysis of current and projected flows for pump design. The Project also included bidding and construction management of three of the designed pumping stations (construction of remaining two pending) using a combination of City, USDA RD, and FDEP SRF funding.

Robert F. DuBois, PSM

Refer to Organizational Chart

EDUCATION
High School Diploma/Coursework at Polk Community College

PROFESSIONAL REGISTRATIONS
Professional Surveyor/Mapper: (# 5293, exp. 2-28-17)

CERTIFICATIONS/TRAINING
TWIC (exp. 4-11-17)

Geodetic Surveyor, Trimble Navigation, California

PSM&J Project Management Boot Camp

PROFESSIONAL AFFILIATIONS
Florida Society of Professional Land Surveyors

American Association of Geodetic Surveying

National Society of Professional Surveyors

Polk County Builders Association.

EXPERIENCE SUMMARY

Mr. DuBois has over 35 years of experience in boundary surveys, topographic surveys, ALTA/NSPS surveys and record surveys.

He has additional expertise in legal descriptions, right-of-way control, platting, GIS mapping, photogrammetric mapping control and construction staking. He also has experience with 3D Laser Scanning and Ground Penetrating Radar technology. He has supervised a staff of up to 30 employees, including field crews, administration assistants, Cad technicians, crew supervisors, and professional surveyors and mappers.

He has experience in project pricing, contract negotiations, scheduling, QA/QC procedures, budget tracking and post client interviews.

He is licensed as a Professional Land Surveyor in Florida and has taken continuing education courses including project management boot camp and geodetic surveyor courses.

REPRESENTATIVE PROJECTS

Clearwater-Largo Road Improvements, Largo, FL
Project Manager Survey - The project involved over three miles of roadway and drainage improvements. This included local streets and milling and resurfacing of Clearwater-Largo Road. The project included traffic analysis, drainage analysis, drainage design, LID, SWFWMD grant, trail connections, multi-modal, traffic calming, public involvement and coordination.

Rosery Road Phase I Improvements, Largo, FL
Project Manager Survey – Completed a 3D laser scanning of approximately 1 mile roadway multimodal improvements. The project will involve roadway and drainage improvements including bike lanes, pedestrian safety improvements, intersection improvements, mid-block crossing, drainage improvements, CSX crossing, coordination and extensive public involvement.

Florida Polytechnic University - New Infrastructure/Campus, Lakeland, FL
Project Manager - Responsible for survey support for the super-structure of the new state of the art University buildings and infrastructure for the entire campus. Verify architectural plans are suitable for layout and construction. Provide calculations for field layout.

Right-of-Way Mapping, Winter Haven, FL
Project Manager – Responsible for two miles of roadway. Research and calculated existing right-of-way through historic records and plats. Provided full topographic survey and prepare legal descriptions for right-of-way easements. Coordinate with city attorney on questionable right-of-way issues. Prepare project for construction activities.

City Plat Review Services, Plant City, FL
Project Coordinator – Responsible for reviewing over 50 platted subdivisions for substantial compliance to Chapter 177, Part 1, Florida Statues. Coordinate with signing surveyors to insure accuracies and compliance to standards.

Economic Development Council – Boundary Survey / 3D Laser Scanning, Lakeland, FL
Project Coordinator – Coordinate boundary survey services and QA/QC review of the former Lakeland Cash Feed site along Lake Mirror. Coordinate 3D laser scanning of the interior and exterior of the existing building structure, provided product in Revit and Cad format.

Nelson Shaffer

Refer to Organizational Chart

EDUCATION
MS, Transportation Engineering; Villanova University (1981)

BA, Sociology; McDaniel College (formerly Western Maryland College) (1973)

CERTIFICATIONS/TRAININGS
Project Management, Pennoni (2015)

PROFESSIONAL AFFILIATIONS
American Society of Highway Engineers

Institute of Transportation Engineers, Past President, MASITE, Past President, District 2, Past International Director, District 2

HONORS/AWARDS
Villanova University College of Engineering Professional Achievement Award, September (2008)

Villanova University College of Engineering Meritorious Service Award, October (2009)

EXPERIENCE SUMMARY

Mr. Shaffer has over 40 years of experience in transportation planning, traffic engineering and public relations.

Specific areas of expertise include planning, parking, traffic impact, pedestrian planning, mass transit, traffic volume and bicycle planning studies, traffic signal design, transportation system management, comprehensive transportation planning, and economic impact studies for governmental and private industry clients.

He is familiar with various Departments of Transportation and other transportation agencies' design regulations and contract procedures as well as local and federal guidelines for transportation related requirements.

He sits on Pennoni's Board of Directors, Executive Committee and Strategic Planning Committee. A Fellow and life member of the Institute of Transportation Engineers (ITE), he is the current chairman of the Southwest Delaware County Municipal Authority. He has been a member of the Villanova CEE Advisory Committee since 2004.

Traffic Engineering and principal for multiple projects in Florida:

Crystal Lake Drive Roadway, Drainage, Bike Lane and Sidewalk Improvements, Lakeland, FL

Sebring Parkway Phase 3 Roadway & Drainage Improvements, Highlands County, FL

US 19 and 70th Avenue Intersection, Roadway, Sidewalk and Drainage Improvements, Pinellas Park, FL

43rd Street Roadway, Drainage, Intersection and Sidewalk Improvements, Tampa, FL

Bok Tower Gardens Lake and Wetland Bio-sorption Media System, Bok Tower Gardens, FL

70th Avenue and 66th Street Intersection, Roadway, Sidewalk and Drainage Improvements, Pinellas Park, FL

Clearwater-Largo Road Improvements, Largo, FL

PUBLICATIONS AND PRESENTATIONS

Effective Communication Strategies for Transportation Professionals, The Consultant Perspective, ITE 2014 Technical Conference and Exhibit (March 2014)

BOARDS AND COMMITTEES

Member, Institute of Transportation Engineers - Advocacy Committee (2014 – Present)
Chairman, Southwest Delaware County Municipal Authority (2012 – Present)
Board Member, University City District (2011 – Present)
Member, Institute of Transportation Engineers - Consultant Council Executive Committee (2010 – Present)
Board Member, Southwest Delaware County Municipal Authority (2006 – Present)
Member, Villanova University Civil and Environmental Engineering Advisory Committee (2004 – Present)
Member, Pennoni Associates Inc., Executive Committee (1996 - Present)
Member, Pennoni Associates Inc., Strategic Planning Committee (1989 - Present)
Member, McDaniel College New Stadium Project Committee (2008 – 2013)
Vice Chairman, Southwest Delaware County Municipal Authority (2008 - 2012)

Maurice Formaz

Refer to Organizational Chart

EDUCATION
AS, CAD; ITT Technical Institute (1995)

PROFESSIONAL REGISTRATIONS
Independent Adjuster: FL (#W105937, exp. 9-30-18)

EXPERIENCE SUMMARY

Mr. Formaz has over 20 years of varied experience in civil engineering design. He serves as Engineering Technician working on public and private civil design projects. Projects have included roadway and intersection improvements, stormwater management design, water distribution systems, wastewater collection, wastewater transmission systems and site development. His responsibilities include obtaining and evaluating design data, preparing preliminary and final designs/layouts, computerized (AutoCAD) construction drawings, quantity takeoffs, cost estimates, and assistance with water, sewer and environmental permitting (SWFWMD, FDOT, Health Department FDEP, ACOE, County, City etc.). He is also proficient with many engineering programs including AutoCAD Civil 3D, MicroStation, and software for stormwater management systems design analysis.

REPRESENTATIVE PROJECTS

Crystal Lake Drive Streetscape Improvements (LAP), Lakeland, FL
Engineer Technician I – Prepared site plan geometrics with dimensioning, landscape geometrics with dimensioning, drainage structures and piping design. Reviewed shop drawings submitted by the contractor. Water & sanitary sewer structure and piping design. Prepared final construction documents for submission to governing agencies for approval.

Ave. B NW Streetscape Improvements (LAP), Winter Haven, FL
Engineer Technician I – Prepared site plan geometrics with dimensioning, landscape geometrics with dimensioning, drainage structures and piping design. Reviewed shop drawings submitted by the contractor. Water & sanitary sewer structure and piping design. Prepared final construction documents for submission to governing agencies for approval.

3rd Street SW Streetscape Improvements (LAP), Winter Haven, FL
Engineer Technician I – Prepared site plan geometrics with dimensioning, landscape geometrics with dimensioning, drainage structures and piping design. Reviewed shop drawings submitted by the contractor. Water & sanitary sewer structure and piping design. Prepared final construction documents for submission to governing agencies for approval.

10th Street Roadway Improvements, Eagle Lake, FL
Engineer Technician I – Prepared site plan geometrics with dimensioning, landscape geometrics with dimensioning, drainage structures and piping design. Reviewed shop drawings submitted by the contractor. Water & sanitary sewer structure and piping design. Prepared final construction documents for submission to governing agencies for approval.

County Facilities Bus Stops, Polk County, FL
Engineer Technician I – Prepared site plan geometrics with dimensioning, landscape geometrics with dimensioning, drainage structures and piping design. Reviewed shop drawings submitted by the contractor. Water & sanitary sewer structure and piping design. Prepared final construction documents for submission to governing agencies for approval. Perform construction administration services.

FDOT Driveway Connection, Mulberry, FL
Engineer Technician I – Prepared site plan geometrics with dimensioning, landscape geometrics with dimensioning. Reviewed shop drawings submitted by the contractor. Prepared final construction documents for submission to governing agencies for approval.

E. Michael McCarthy, PE

Refer to Organizational Chart

EDUCATION

BA, Architectural Engineering; The Pennsylvania State University

Special Studies, University of Leeds, England

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL (#32629)

Special Building Inspector: FL (No exp. 1985)

CERTIFICATIONS

FAA Instrument Rated Pilot

PROFESSIONAL AFFILIATIONS

Structural Engineering Institute
American Concrete Institute
Pinellas County Licensing Board
YMCA of the Suncoast Building and Grounds

HONORS/AWARDS

EXPERIENCE SUMMARY

Mr. McCarthy, PE has 40 years of experience in the design of site structures including buildings, retaining walls, paving, culverts, screen walls, pedestrian bridges, sea walls, fencing, light poles, and all sizes and types of building structures. Mr. McCarthy has served many of the local Tampa Bay municipalities over the years.

REPRESENTATIVE PROJECTS

Belleview Biltmore (Formerly Pelican) Golf Club, Belleair, FL

Project Manager – Town requested a structural assessment of the club house and one maintenance building to identify structural deterioration, deficiencies and other concerns. Our scope of services included a visual review of random, readily accessible areas of the existing building, a review of the existing structural drawings, assess the condition and prepare a written summary report of findings.

Belleview Biltmore Re-Inspection PH II, Belleair, FL

Project Manager – City P.O. #6073: Provided a limited structural re-inspection of areas of concern at the existing hotel, new review of some new areas of the hotel, and an inspection of three separate cottages on the grounds due to the concern of the Town on the continued neglects of the unrepaired damage to the roof and exterior walls of the large wood framed structure. A report of our findings and conclusions are presented in the enclosed report.

Belleair Public Works Building Structural Evaluation, Belleair, FL

Project Manager – Provided a limited structural inspection to review the current condition of the truck dock bays and administration office for the referenced building. Provided an inspection letter and photographs of findings.

Belleview Biltmore Inspection, Belleair, FL

Project Manager – Provided a structural conditional survey of a large existing wood framed hotel unoccupied since 2009. The building suffered from roof damage and water intrusion which caused concerns by the Town about possible demolition by neglect with the current owner. Our scope of services was to conduct a walk-thru visual tour of representative areas of the building, document any structural deterioration and other structural damage found and prepare a technical report describing our observations and findings.

Dimmitt Community Center Investigation, Belleair, FL

Project Manager – Town of Belleair had concerns of reported cracking in the exterior masonry walls of the Community Center. Conducted a visual inspection and provided a report summary of our findings and recommendations.

Water Treatment Plant, Dunedin, FL

Project Manager - Administration/Process Building Hurricane Assessment Study: Evaluated the existing buildings to assess the vulnerability/capability to withstand hurricane damage.

Identified potential failure modes and determined means to upgrade. Had an outside consultant prepare cost estimates to upgrade the building. Prepared a report summarizing and findings and recommendations.

Public Safety Complex, Largo, FL
Structural Engineer - The project included three new buildings totaling 218,403 square feet for the county's new emergency operations center; emergency communications and 911 call center; emergency medical services; sheriff's administrative/operational headquarters and dispatch center; and vehicle maintenance and communications building. In addition, a new 617-space parking garage and central energy plant serves the complex. The facility will have the capability to withstand winds of over 200 miles per hour and the forces of a 10,000-year storm event. During a natural disaster or other crisis, the facility will remain fully operational to lead recovery efforts and provide for continuous emergency communications.

Central Energy Plant, Clearwater, FL
Structural Engineer - New 4,500 square feet single story central energy plant with an emergency generator inside, and foundations for two outside cooling towers and thermal storage tanks that are part of the 3,000 ton central utilities plant for Pinellas County in Downtown Clearwater. The plant will provide chilled water for seven County buildings in Downtown Clearwater as well as City and private clients.

Public Works Emergency Responder Building, Clearwater, FL
Structural Engineer - The structure is built from structural steel, reinforced concrete and concrete tilt-up wall panels including FEMA 320-361 storm / security windows and a performance roofing system, directly adhered to a concrete roof deck to withstand extreme weather events. This new 82,637 sf facility is a multi-story and storm hardened, designed to withstand a category 5 hurricane. It is home to the operations and emergency first responders command center, including field operations staff, administrators, traffic managers, and other critical Public Works facilities and personnel. The facility is designed to be self-sufficient for up to seven days with generated power, water, sewage storage capacity, kitchen facility and sleeping quarters for the first responder operations.

Police Firing Range, Clearwater, FL
Structural Engineer - New one story partially enclosed firing range with workshop. A superstructure of precast concrete and cast-in-place concrete. Construction documents have been completed for permitting.

Grand Central Station Plaza II, St. Petersburg, FL
Principal – Large circular bus station consisting of complex steel framing. Provided the structural design and full construction phase services to the project.

14840 49th Street North Building Demolition, Largo, FL
Principal - Existing building underwent a partial demolition of 5,000 square feet steel joist cmu wall portion. The attached metal building warehouse remained. The wall separating the two sections became an exterior wall. Reinforce or remove and replace the separation wall. Services included: 1) Visit the site to document readily accessible parts of the existing structural system, 2) Evaluate the separation wall under current code wind loads, 3) Design remedial reinforcing for the wall or design its removal and replacement, 4) Prepare structural demolition and remedial drawings, and 5) Provide construction services-submittal review and response to RFI's.

Andrew J. Pennoni, PE

Refer to Organizational Chart

EDUCATION

BS, Civil Engineering; Drexel University (1991)

BS, Architectural Engineering; Drexel University (1991)

MBA, Business Administration; St. Joseph's University (1996)

PROFESSIONAL REGISTRATIONS

Professional Engineer: PA (#PE051031E, Exp. 9-30-17)

Professional Engineer: NJ (#24GE04174600, Exp. 4-30-18)

Professional Engineer: FL (#63242, Exp. 2-28-17)

Professional Engineer: KY (#21920 Exp. 6-30-18)

CERTIFICATIONS/TRAINING

Certified Welding Inspector, AWS (#98110371, Exp. 11-1-16)

Project Management, Pennoni (2015)

Radiological Safety, Troxler (1997, no exp.)

Certified Coating Inspector, NACE Level I (#5941, Exp. 4-1-08)

Certified Concrete Field Testing Technician Grade I, ACI (#00959556 Exp. 2-28-12)

Certified Quality Control Personnel, Level II, PCI (#20679, Exp. 4-25-12)

Certified Reinforced Concrete Special Inspector, ICC (#529933349, Exp. 2-11-14)

SCEF/PCEF Committees, including Bolting Inspector Training & QA/QC Precast Concrete Subcommittees

Fundamentals of Non-destructive Testing/ANST, MEI

Co-Chairman/Metals Session/2001 & 2005 Mid-Atlantic States' Quality Assurance Workshop

EXPERIENCE SUMMARY

Andrew Pennoni has over 25 years of engineering and construction experience that includes construction inspection, materials inspection, materials testing, design and construction management. He is a licensed Professional Engineer in multiple states and has obtained several industry certifications and training from the American Welding Society, the American Society for Nondestructive Testing, the National Association of Corrosion Engineers, the Prestressed Concrete Institute, the American Concrete Institute and the International Code Council.

REPRESENTATIVE PROJECTS

Municipal Engineering

Project Engineer for various municipal engineering duties / construction services, including public works infrastructure design, subdivision and land development plan reviews, construction administration, and construction surveillance and coordination. Design has included roadway and storm drainage improvements such as paving, stormwater and sanitary sewer, curb, sidewalk and water main. Plan reviews involve a detailed review of commercial and residential plans with respect to the subdivision and land development ordinance, zoning ordinance, street design, stormwater management, water supply and sewage disposal.

Fries Construction Management - SEPTA's Cassatt Avenue Bridge, Berwyn, PA

Project Engineer for Quality Control testing and inspection services during the fabrication, coating and erection of a new structural steel tubular truss pedestrian bridge over the tracks at the Berwyn Train Station. Responsibilities also included the quality control testing during cast-in-place concrete construction and earthwork.

Camden Waterfront - Mass Transportation Project, NJ

Project Engineer for Construction Manager of a $12,000,000 Guaranteed Maximum Price project consisting of an 800-car parking garage, associated roadwork, utilities and a ferry pier. Performed quality control monitoring of construction activities, shop drawing review, reviewed change orders and subcontractor invoices, conducted progress meetings and worked as liaison between subcontractors, architect/engineers and owner.

Easttown Municipal Authority – Sanitary Main, Easttown Township, PA

Field Engineer during construction. Project consisted of over 15,000 linear feet of sanitary main, over 300 lateral connections, pumping stations, over $300,000 of drainage improvements, and paving repair and overlay. Performed on-site inspection of sanitary sewer installation, storm drainage improvements and roadway repairs and overlay. Monitored the contractor's daily progress and performed the layout of laterals, sanitary main and storm drainage facilities.

ROADWAY DESIGN AND CONSTRUCTION

Performed design, contract document preparation, construction surveillance and construction administration for various roadwork projects, including:

- Plaza Boulevard Paving and Drainage Improvements, PA
- Road Improvements - Thornbury Township, PA
- Township Drive Extension - Thornbury Township, PA
- Walker Road Widening and Gypsy Hill Road Overlay - Franklin Township, PA
- Road Improvements Contract - Franklin Township, PA
- Church Hill Road Culvert Replacement - Franklin Township, PA

Jeremy Case, PE, SE

Refer to Organizational Chart

EDUCATION

MS, Civil Engineering; Iowa State University (2011)

BS, Civil Engineering; Institut Teknologi Bandung (2009)

PROFESSIONAL REGISTRATIONS

Structural Engineer: HI (#17067, exp. 4-30-20)

Professional Engineer: IA (#23214, exp. 12-31-19)

Professional Engineer: FL (#83972, exp. 2-28-19)

TRAINING

Blast Resistance for Anti-Terrorism, Protection Engineering Consultants

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers; Quad Cities Chapter Treasurer (2017), Secretary (2016)

EXPERIENCE SUMMARY

Mr. Case has 10 years of experience in structural engineering and infrastructure projects. He has expertise in the structural design of buildings and infrastructure projects as part of multi-discipline teams for military, government and private clients. As both structural lead and project manager, he has solved complex engineering challenges through focused creativity empowered by his understanding of structural engineering principles and a collaborative approach. His focus on constructability and client priorities throughout the project has repeatedly resulted in successful projects meeting both schedule and budget.

REPRESENTATIVE PROJECTS

Harvard Jolly - Monroe County School Board – Stanley Switlik Elementary School, Marathon, FL

Project Engineer – 2 new concrete tilt wall and 1 new masonry buildings and 2 building renovations. Responsibilities include the structural design of a 2-story classroom tilt wall building (45,000 +/- sq. ft), a 1 story tilt wall office and administrative building and a 1 story garage and maintenance building.

US Army Corps of Engineers – United States Navy – Naval Medical Research Unit 3 Inspection and Analysis, Cairo, Egypt

Project Engineer – Lead structural engineer for the inspection, evaluation and analysis of an existing 3 story office building that had undergone modifications, experienced an earthquake and had recently had a fire on one of the floors. The deliverable was a report describing the inspection, analysis, retrofit recommendations and rough order of magnitude retrofit costs.

US Naval Facilities Engineering Command (NAVFAC) – Evaluation of Existing Equipment Building, NAS Whiting Field, Milton, FL

Project Engineer -- responsible for evaluating an existing building and slab that had experienced significant settlement and providing solutions to fix the existing slab making it usable for future use.

US Naval Facilities Engineering Command (NAVFAC) – Wave Pool Generator Equipment Replacement DB RFP Preparation, Aviation Rescue Swimmer School, NAS Pensacola, FL

Lead Structural Engineer – Developed design-build RFP documents on behalf of NAVFAC for the replacement of and modification to the rescue swimmer training pool wave generator equipment and system. Challenges included coordinating construction activities with Aviation Rescue Swimmer School training schedules, modifying the concrete pool walls while not draining the pool, coordinating limited contractor laydown and work areas within an existing occupied building.

US Army Corps of Engineers -- Child Development Center Design-Build RFP Preparation/Owner's Representative, Yokosuka, Japan

Lead Structural Engineer – Developed design-build RFP documents on behalf of USACE and reviewed the contractor's structural engineer's drawings and computations for a child development center. Challenges faced during the RFP development phase included the discovery that the proposed building footprint straddled a reclaimed shoreline. Bedrock depth varied from 3 ft at one end of the building to approximately 60 ft at the other requiring the building to be supported on both shallow and deep foundations. Other challenges included high seismicity and a liquefiable soil layer below the building. The goal of the RFP development was to point out all issues effecting the contractors' bid in order to minimize change orders and to

provide minimum project requirements while allowing enough flexibility to permit the contractor and engineer of record to minimize project costs.

Confidential Client – Various Special Forces Training Facilities, Confidential Location
Lead Structural Engineer/Assistant Project Manager – responsible for developing concepts and final design for over 30 different training facilities. Tasks included evaluating existing facilities, developing structural concepts for new facilities, managing subconsultants and leading coordination of the multidiscipline design team while maintaining the project budget. Facilities included 10 story climbing tower, concrete support buildings, long span 3D steel truss canopies for a No Danger Area (NDA) small arms range, structural evaluation of an existing marine counter-terrorism facility, building design and shelter designed to give blast protection to trainees at demolition ranges.

US Department of Agriculture – Wastewater Treatment Plant Design, Edinburg, Tx
Lead Structural Engineer - responsible for designing partially buried concrete tanks for treatment of waste water in accordance with ACI 350 and for writing specifications for the procurement of a pre-engineered steel frame sunshade. Responsible also for the design of the sunshade foundations. Project challenges included designing the foundations for an expansive soil layer.

Des Moines Waterworks – Analysis of Existing Water Treatment Plant Structures, Des Moines, IA
Project Engineer -- responsible for analyzing the capacity of the roof slabs of existing underground water treatment structures to support heavy equipment loads such as excavators and skid steers.

Confidential Client – CBPB Recreation Complex, Confidential Location
Project Engineer – Responsible for the design of an underground concrete bunker including entrance ramps and parking area. Structure is located on a site with near surface, saltwater requiring special attention to the concrete mix design and detailing of joints to ensure water-tightness. The structure was located 17 ft below grade resulting in soil loads of over 2,000 lbs/sq. ft.

US Air Force - Air Force UMMC Program, AFCENT FY11 P-341 Projects - UAE, Qatar, Kuwait
Project Engineer - responsible for the analysis, design and detailing of several underground concrete structures according to ACI 350 (Code Requirements for Environmental Engineering Concrete Structures) to ensure that the contaminated liquid contents would not leak out creating an environmental hazard. Also included were the design of a cast-in-place concrete lift station and the design of high-mast light pole foundations.

City of Rock Island – Transient Marina Dock, Rock Island, IL
Project Engineer -- responsible for designing steel pipe piles used as rigid anchors for the dock system located in the Mississippi river, detailing the connection of the aluminum gangway to the existing concrete seawall, as well as the design and detailing of a steel shade structure on shore. Several changes in dock layout and location created the need to continuously coordinate the design of the shade structure on shore with the architectural and landscape architectural sub-consultants to ensure that the aesthetic requirements and structural requirements could both be met.

Jeffrey J. Salemme, PE

Refer to Organizational Chart

EDUCATION

BA, Architectural Engineering/Structural Option; The Pennsylvania State University (1984)

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL (#44131, exp. 2-28-19)

Special Building Inspector: FL (#1074 exp. 2-28-19)

Professional Engineer: MI (#44491 exp. 10-30-19)

Professional Engineer: MS (#14797 exp. 12-31-18)

Professional Engineer: NC (#24155 exp. 12-31-18)

Professional Engineer: NE (#9147 exp. 12-31-18)

Professional Engineer: NY (#78285 exp. 8-31-18)

Professional Engineer: PA (#054577 exp. 9-30-19)

Professional Engineer: TN (#105634 exp. 9-30-19)

Professional Engineer: TX (#82286 exp. 12-31-18)

CERTIFICATIONS/TRAININGS

Building Code Core Course, FL (2004, no exp.)

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers

American Concrete Institute

National Society of Professional Engineers

HONORS/AWARDS

Lynch Elementary School - ENR Southeast 2012 Best Projects

Opal Sands Resort – ENR Southeast 2016 Best Projects

St. Mark's the Evangelist Catholic Church – 2016 TCA Tilt-up Achievement Award – Spiritual Division

EXPERIENCE SUMMARY

Mr. Salemme has over 30 years of experience as a structural engineer and Florida licensed special building inspector. He is currently responsible for project management, structural analysis and design and construction administration.

REPRESENTATIVE PROJECTS

Mason Blau & Assoc./Pinellas Co. Government - Public Works Emergency Responder Building, Clearwater, FL

Project Manager – The structure is built from structural steel, reinforced concrete and concrete tilt-up wall panels including FEMA 320-361 storm/security windows and a performance roofing system, directly adhered to a concrete roof deck to withstand extreme weather events. This new 82,637 sf facility is a multi-story and storm hardened, designed to withstand a category 5 hurricane. It is home to the operations and emergency first responders command center, including field operations staff, administrators, traffic managers, and other critical Public Works facilities and personnel. The facility is designed to be self-sufficient for up to seven days with generated power, water, sewage storage capacity, kitchen facility and sleeping quarters for the first responder operations.

John Poe Architects/Admiral Farragut Academy - Chapel Replacement, St. Petersburg, FL

Project Manager & Threshold Inspector – Currently in the permitting phase for the new one-story 22,000 square feet multi-purpose building with an outdoor patio, walkways, and steps. The elevated first-floor slab will comply with FEMA AE zone requirements. Our firm will also perform the threshold inspections.

Mesh Architecture/Taub Entities - Bliss Condominium, St. Petersburg, FL

Project Manager – New 18-story 119,750 square feet residential building with parking on the lower floors. Scope of Services: Schematic Design: Preparation of schematic structural plans and specifications. Construction Documents: Structural drawings and specifications. Construction Administration: Shop drawing review and contractor RFI's.

Fowler Architecture/Capitol Theatre – Renovation and Reconstruction, Clearwater, FL

Project Manager and Special Inspector - McCarthy and Associates provided the structural services and threshold inspections for the project that included the complete renovation and reconstruction of the Mediterranean-Revival building originally built in 1921 and enlarged on the east, west, and south sides with two-story additions. Experienced many unusual unforeseen conditions to work around during the course of the demolition. The theater has expanded to 735 seats, including six private loge boxes. Other features include a larger lobby, a VIP room, chorus/dressing rooms, backstage areas, an outdoor balcony that wraps around the building, and a rooftop terrace. The Theatre renovation included all new plumbing, mechanical, and electrical systems, and new state-of-the-art theater rigging, lighting, and sound systems.

SALT BLOCK 57 LLC - Opal Sands Resort, Clearwater Beach, FL

Project Manager and Special Inspector - Grand Opening of February 2016, the new 15 story hotel over two parking levels is located at 430 S. Gulfview Blvd. on Clearwater Beach, FL. It is constructed with post-tension slabs, concrete columns, and shear walls superstructure with piling foundations. Multiple levels include: parking, restaurant, pools, lobby, gym and spa, ballroom, meeting rooms, and guest rooms. Provided the construction design, construction administration and threshold inspections. Received the ENR SE 2016 Best Projects Award.

Harvard Jolly Architects/Academy of the Holy Names - Performing Arts Center, Tampa, FL
Project Manager & Threshold Inspector - Full structural services on a new 32,000 square foot one-story Performing Art Center located on the existing K-12 private school campus in Tampa, Florida. The project additionally consists of the following, masonry cavity wall construction with brick façade, enclosed compactor area, masonry construction with stucco finish, new covered walkways, a couple of planter's walls, and foundations for a 20' high net site buffer (between the new PAC & existing soccer field).

FleischmanGarcia Architects/ Bryan Glazer Family - Jewish Community Center, Tampa, FL
Project Manager and Special Inspector – Our firm provided the Phase I limited structural evaluation at the historic Homer Hesterly Armory Building to convert to a Community Center. Phase II-Existing 83,000 sf building renovations which includes: 1) new two-story Grand Lobby with large, complex porte-cochere, 2) new interior stairs and elevators, 3) new RTU's, 4) replace all the doors and windows, 5) site screen walls, 6) suspended partitions in meeting rooms, and 7) infill portion of the multi-purpose space. A new stand-alone Preschool totaling 14,000 sf was also added.

Sid Lickton Sports Complex - Renovation, Clearwater, FL
Project Manager – Under City of Clearwater Purchase Order ST108573 - Responsible for the site features portion of the complete renovation of the sports complex. The site features included the structural upgrading of backstops, dugouts, 30-foot fencing with netting, scoreboards, batting tunnels, light poles, and bullpen lights. The dedication of the complex was February 15, 2014. Provided the structural construction documents and construction phase services responding to contractor RFIs, field site inspections, and shop drawings.

Harvard Jolly Architects/City of Tampa - Waste Management MRPF, Tampa, FL
Project Manager – Waste Management, comprehensive waste and environmental services company that partners with communities and municipalities providing disposal and recycling solutions. A new single story 72,400 SF materials recovery facility with an attached office building with mezzanine floor. An existing pre-engineered metal building to be expanded at each end. Infill existing loading dock and ramp. Construct new loading dock and ramp within the new expansion. Construction: Superstructure-pre-engineered metal building, slab on grade. Special designs were involved for the equipment foundations, pits, and push walls.

Williamson/Dacar Associates - Calvary Chapel Sanctuary Addition, Pinellas Park, FL
Project Manager - Existing one story 120,000 square feet building with 80,000 square feet occupied. Built remaining 40,000 square feet by demolishing existing roof, maintain existing slab and exterior walls. Extended exterior walls and rebuilt a new steel joist clear span roof. Designed a raised stage and sound booth. Aided with pricing concepts, construction design and consultation, construction administration and site visits.

Dunedin Spring Training Facilities – Toronto Blue Jays, Dunedin, FL
Project Manager & Special Inspector– Renovations and Expansion to the following:

Grant Field: New 1,000 seat precast bleacher addition, three Boston-style batting tunnels, scoreboards, new 2-story 33,000 square feet clubhouse and two ticket booths. Provided the structural services and threshold inspections in 2002.

Florida Auto Exchange Stadium (Formerly Vanech Stadium): New one-story, 30,000 square feet clubhouse, four Boston-style batting tunnels, eight dugouts, and a new two-story observation tower building. Provided construction documents and construction phase services reviewing shop drawings, responding to contractor RFIs for the project.

Portela & Associates/Diocese of St. Petersburg - St. Mark's the Evangelist Catholic Church – New Complex, Tampa, FL
Project Manager – New 35,000 square foot complex that included the main sanctuary, daily chapel, choir room, counseling area, baptismal, gift shop and other areas. The facility included a barrel-vaulted roof, long span construction. Every type of material was utilized; steel, concrete and timber. There were two crosses that were of a unique design: An exterior 58' steel cross and an interior/exterior concrete tilt-up 35' tall and 6'wide cross behind the platform. The project received the 2016 TCA Tilt-up Achievement Award-Spiritual Division.

Christopher Lee, PE, SE, LEED GA

Refer to Organizational Chart

EDUCATION
BS, Civil Engineering; University of Florida (2006)

PROFESSIONAL REGISTRATIONS
Professional Engineer: FL (#73264, exp. 2-28-19)

CERTIFICATIONS/TRAININGS
LEED Green Associate, GBCI (#10711181, exp. 6-20-19)

PROFESSIONAL AFFILIATIONS
Organization; role (other than member)

NA

HONORS/AWARDS
Award, Organization Presenting (Year)

NA

EXPERIENCE SUMMARY

Mr. Lee has over 10 years of experience as a structural engineer. He provides overall project management from preliminary design through construction, including design and coordination, client interaction, RFI responses, shop drawing review and site inspections. He has worked extensively on both large-scale and small-scale projects involving commercial, residential, industrial, educational and government scopes. Construction types include concrete, masonry, steel and wood used in specialized and other specific designs including tilt wall, precast, composite slabs, post tension slabs, retaining walls, and tunnel form. Foundation designs include monolithic systems, spread footings, driven piling (wood and precast concrete), augercast piling, drilled shafts, and mats. Designs for unique environments including coastal areas, seismic conditions, and elevated wind events up to a category 5 hurricane for residential and essential structures have been completed.

REPRESENTATIVE PROJECTS

Harvard Jolly Architects – Bank of Tampa Mid Pinellas Office, Pinellas Park, FL
Project Manager – New one-story, 3,246 gross-SF bank building with attached drive-through and included multiple cantilevered canopies. Structurally completed Fall 2016 and constructed of masonry, steel joists and steel deck. Provided the construction documents, construction administration and construction site visit.

George F. Young – SK Keller Water Treatment Plant, Tarpon Springs, FL
Project Manager - New one-story, administration/maintenance, 10,000-SF building with a bridge crane in one area. Designed for Vult = 155 mph. Constructed of masonry walls, metal truss roof and spread footings, slab-on-grade foundation.

Williamson Dacar Associates – Largo Environmental Warehouse, Largo, FL
Project Manager – New one-story, 14,100-SF warehouse with 1,300-SF interior mezzanine. Includes a loading dock and hoist rail and new covered pre-engineered parking structures. The roof is metal decking and steel joists, load-bearing tiltup walls with McCarthy designing the panel rebar. Mezzanine is composite deck on steel framing and slab-on-grade and spread footings foundations. The wind design is a base code of 145 mph.

Plisko Architecture - Clearwater Fire Station #50, Clearwater, FL
Project Manager – A new 10,300-SF station with apparatus bay constructed of light gauge metal trusses and office/living quarters of steel bar joist roof, masonry walls for a Category 5 hurricane design.

FleischmanGarcia Architects - Seminole Fire Station #32, Largo, FL
Project Manager - A new 7,307-SF, two-bay station prototype with four bunks and a battalion chief's office. At the city's request, the building has been designed to resist a 190-mph wind velocity. The construction began in May of 2016. Firm provided structural design and consultation, preparation of signed and sealed construction drawings and specifications, review of shop drawing and material submittals, response to requests for information and construction site observation.

Rowe Architects/St. Petersburg College - Bay Pines STEM Labs/Classroom, St. Petersburg, FL
Project Manager – A new one-story, 12,000-SF classroom building will house labs, office space and lecture space on an elevated PT slab over parking with an approximate construction cost of $5,500,000.00.

Harvard Jolly Architects - St. Petersburg Police Department Headquarters, St. Petersburg, FL
Project Manager - Currently in the construction phase for new two-story, 49,469-SF and three-story, 113,834-SF buildings connected by an elevated walkway with a free-standing 4,000-SF, MEP equipment room. The high wind design is for a Category 3 hurricane. The project also includes a new 4 level precast parking garage with connecting elevated walkway to the two-story structure and a rooftop support structure for Photovoltaic panels.

Mesh Architecture – The Salvador, St. Petersburg, FL
Project Manager - The Salvador is a 230,000-SF, mixed-use project that consists of 11 stories of masonry and precast hollow core concrete plank structure over a combination of two levels of masonry and post tension structure. The lowest two levels contain garage and retail space with an amenity deck and pool on the third floor. The foundations consist of spread footings on a subgrade modified by vibro replacement to achieve an increased bearing pressure and a more economical design.

JMC Communities – Victoria Place, Dunedin, FL
Project Manager - New four-story, mixed-use retail and condominiums with ground level parking and detached garage structures in downtown Dunedin. Construction consisted of a post-tensioned transfer slab at the 2nd floor supporting masonry bearing walls and hollow core precast plank flooring with a trussed roof. The foundations were designed as large strip spread footings and were designed to have redundancy and resistance to sinkhole development.

FleischmanGarcia Architecture - Metropolitan Ministries Partnership School, Tampa, FL
Project Manager - A two-story educational facility consisting of steel joist and deck roofs, composite concrete and steel floor slab and masonry walls on spread foundations. This school completed a three-phase plan for expanding the campus.

Griffin Design - St. Jude's Cathedral, St. Petersburg, FL
Design Engineer - This project was a major renovation to foundations, walls, and roof. The building was analyzed and brought up to current code regarding lateral wind design which included adding steel braced frames and shear walls and reinforcing the existing diaphragm system. The large central dome consisted of an estimated 200 tons of masonry and concrete that had its supporting columns removed and replaced by large L-shaped steel frames with twenty-foot cantilevers to create the desired open central space. Finite element models were used to evaluate the new and existing components and showed deflections to within a few hundredths of an inch for the final conditions.

FleischmanGarcia Architects - Out-of-Door Academy STEM Student Center, Lakewood, FL
Project Manager - Design complete for a new two-story, 16,000-SF STEM facility in Lakewood Ranch, FL. Constructed of composite concrete and steel beams second floor, open web steel joist roof system and features custom HSS structural trusses.

Klar and Klar Architects – Crabby Bill's Restaurant, Clearwater Beach, FL
Project Manager – New 3-story 11,057-SF building constructed of hollow core plank floors, steel joists and deck roof in an A-zone (flood). A portion of the ground floor was designed to be floodproofed. A 3-story attached monument sign was included in the design.

Robert A.M. Stern Architects/Florida Southern College - Residence Buildings-Barnett Residential Life, Lakeland,
Design Engineer - Construction completed on the new two 3-story buildings totaling 90,000 SF with 360 beds in Lakeland, Construction consisted of precast slabs, concrete columns with load bearing masonry walls and spread footings.

Brick Rosenbaum, PE, SI

Refer to Organizational Chart

EDUCATION

BS, Civil Engineering; University of Florida (1975)

ME, Structural Engineering; University of Florida (1976)

PROFESSIONAL REGISTRATIONS

Professional Engineer: FL (#3130)

Special Building Inspector: FL (#2071)

Professional Engineer: GA (#12199)

HONORS/AWARDS

Tallahassee/Leon County Historic Preservation Award for Rehabilitation of the Los Robles Gate Archway (2008)

Award of Merit by International Concrete Repair Institute, Leon County Courthouse Repair & Strengthening Project (2007)

Engineer-of-the-Year Award from the Tallahassee Branch of the American Society of Civil Engineers (2002)

CECG's Annual Grand Award for Orlando International Airport Terminal Expansion - Structural Construction Engineer (1993)

ACI's Design Excellence Award for Reinforced Concrete Structures for the Augusta College Multi-Purpose (1991)

AFRCE/Eastern Region Design Excellence Award for Charleston AFB Medical/Dental Clinic - Project Civil Engineer (1987)

CEC/G's Engineering Excellence Award for Valdosta State PE Complex - Project Structural Engineer (1983)

ACEC's New Principle National Recognition Award - National Runner-up (1986)

GSPE's Outstanding Engineering Project for Valdosta State PE Complex - Project Structural Engineer (1982)

EXPERIENCE SUMMARY

Mr. Rosenbaum has over 42 years of experience in structural and civil engineering, He is a hands-on, design-oriented engineer who provides leadership and mentoring to his associates. He has successfully provided structural and civil engineering services to a variety of clients and projects throughout Florida and southeast United States and has maintained a focus on a commitment to quality services and design excellence in all their projects.

REPRESENTATIVE PROJECTS

Florida State University - Continuing Structural Engineering Services and Threshold Inspection, Tallahassee, FL

Principal-in-Charge, Project Manager/Engineer - The firm has completed (or is currently working on) approximately 70 individual projects and has received an Overall Performance Rating of "OUTSTANDING" or "ABOVE SATISFACTORY" on all of its performance evaluations by the University. The initial contract was for one year in 2007 and has been extended 4 times through 2019.

Continuing Consulting Structural Engineering Services, Tallahassee, FL

Principal-in-Charge, Project Manager/Engineer - Continuing services contract (1999-present) with the City providing Structural Engineering services supporting the City's Architectural staff. Over 80 projects completed include fire stations 15 and 16, renovation of fire station 4, Evaluation and Re-construction of the Historic Los Robles Archway and repair of the front entry of City Hall.

Florida DOT - MM63 Rest Area & Public Safety Building, Ft. Myers, FL

Principal-in-Charge - This design-build project consisted of a 9,270 Rest Area & 5,607 Public Safety Center located at Mile Marker 63 on I-75 in Collier County. The project scope included demolition and construction of a new restroom building and a new Collier County Public Safety Center.

Supreme Court Building -Waterproofing Project FDMS Project Number JB-27013000: Tallahassee, FL

Project Engineer - Concept Design and Design-Build Performance Specifications and Detailing for water-proofing to be applied around the exterior walls of the basement spaces. At some locations excavations and shoring up to twenty-five feet deep were required to reach the base of the wall. In order to save existing Live Oak trees, special temporary soil retaining systems were designed to prevent soil caving in on construction teams below.

Leon County Garbage Transfer Station Tipping Slab: Leon County, FL

Civil and Structural Engineer for design of heavy industrial slab rehabilitation and replacement. The 20,000 s.f., 14" thick had deteriorated severely from the 50,000# equipment used to sort and load all the county's garbage daily and after extensive evaluation and investigation, it was determined that the slab would be demolished and replaced. Underlying soils issues were addressed in the new design. Construction was completed in 2015.

Apalachee Regional Park Comfort Station: Leon County, FL

Structural & Civil Engineer-of-Record for a new 1,800 S.F. Comfort Station. The facility included a covered concessions area, restrooms and storage for maintenance equipment and concessions.

Historic U.S. Courthouse: Tallahassee, FL
Civil and Structural Engineer for the Restoration and Alteration of the four story Federal Courthouse on the National Register of Historic Places in America. Project included retrofitting the existing structural system for installation of a new interior elevator and HVAC system and complete alteration and restoration of the site security features to satisfy the new post 9/11 security requirements. Additionally, included design of removal of an old elevator and reconstruction of the structure on all four floors to restore the building and the grand spiral staircase to its original condition. An indoor shooting range was constructed in the basement.

Continuing Supply, Annual Contract for Structural Engineering: Leon County, FL
Project Manager and Senior Structural for an on-going contract including design of column repairs for the Leroy Collins Library, modifications to the Gum road Transfer Station and a Feasibility Study for a Pedestrian Bridge between the County Courthouse and the Bank America Building, among others. REI has completed a total of 30 individual projects under this contract.

LEED Certified Facilities – Solid Waste Administration Building, Tallahassee, FL
Project Civil and Structural Engineer & Designer for this facility which was renovated as a "green" building with Leadership in Energy and Environmental Design (LEED) Silver Certification, the first certified project in Tallahassee, Florida and one of the first in the State of Florida. See information sheet at the end of this resume.

Florida State University, Tallahassee, FL
Project Manager/Engineer for structural repairs and Cathodic Protection of Building 408 at the FSU Marine Lab.

Orlando International Airport Terminal Expansion, Orlando, FL
Construction Administration Manager - Provided on-site structural consultation and construction services to expedite fast track construction for the project.

Moody AFB, GA - Continuing Services Contract
Structural and Civil Engineer for 5-year contract including design of the Spence Field firehouse, addition to the Grassy Pond Recreational Center, Physiology Training Center, Modifications to the HQ services Building, among others.

US Army Community and Family Support Center, Alexandria, VA
Civil and Structural Engineer for on-going Continuing Services Contract for 8 southern states. Project included projects at Fort Jackson, SC, Ft. Gordon, GA, Ft. Benning, GA & Destin, FL.

Correctional Facilities, GA
Civil and Structural Engineer for numerous Georgia Department of Corrections detention facilities and County Jails, including the new Glynn Jail, 8 Regional Probation Centers, Baldwin County Jail and many others. In addition, Civil Engineer for the new Jackson and Augusta, GA Firing Ranges for the Department of Corrections.

Military Facilities, Various
Civil and Structural Engineer for numerous facilities for the U.S. Army, Navy and Air Force, working directly through the bases or through the District Offices of the Corps of Engineers or MAVFAC, Southern Division. Projects included, among others, reconstruction and realignment of .75 miles of roadway on Moody A.F. Base, 5 Battalion Motor Pool Facilities for Tactical (tracked) Vehicles at Fort Steward, and a large fighter aircraft maintenance hanger at Naval Air Station Cecil Field, Florida. The Cecil Field project was designed at the inception of Florida's laws requiring treatment of storm water and included a unique (at the time) underground lateral filtration system.

DAVID O'CONNOR, PE, BCEE

WATER/WASTEWATER

EDUCATION

BS Environmental Engineering;
University of Central Florida, 1996

YEARS OF EXPERIENCE

Total – 20 years
With Arcadis – 1 year

PROFESSIONAL REGISTRATIONS

Professional Engineer (FL, NC, MS, AL, TN)
Board Certified Environmental Engineer

Mr. O'Connor is the West Florida water location leader for Arcadis. He has more than 20 years of experience in assisting clients in the planning, design, permitting and construction management of projects through continuing services contracts.

Mr. O'Connor has served as project manager for more than 20 municipal clients along the west coast of Florida, under continuing services contracts, including: Town of Belleair, City of Belleair Beach, Citrus County, City of Brooksville, City of Clearwater, Hernando County, Hillsborough County, City of Largo, Manatee County, Pinellas County, Pinellas Park Water Management District, Safety Harbor, Sarasota County, City of Seminole, City of South Pasadena, City of St. Pete Beach, City of St. Petersburg, City of Tampa, Tampa Bay Water, City of Tavares, City of Tarpon Springs, City of Temple Terrace, City of Venice and the Withlacoochee Regional Water Supply Authority.

Project Experience

Water Treatment Evaluation

Town of Belleair, FL

Project manager and project engineer assisting the Town of Belleair evaluate the potential for incorporating reverse osmosis into the current water treatment facility. The Town of Belleair currently meets its 1.0 million gallon per day water demand by the operation and management of a local groundwater wellfield and associated water treatment facility. Based on the Town's close proximity to the Gulf of Mexico and based on historical increases in chloride concentrations throughout the wellfield, the Town needed to evaluate its current water source to ensure that future water demands could be met and that water resources were managed properly.

Hernando County: Continuing Service Contract

Hernando County, FL

Project manager and project engineer for numerous utility engineering improvement projects for Hernando County under existing as-needed contract (with previous employer). Projects included:

- Aerial Way Force Main
- Kettering Road Force Main and Pumping Station Bypass
- Hut Pumping Station
- County Line Road Utility Work by Highway Contractor Agreement (UWHCA)
- Spring Hill and Glen WRF FDEP Permit Renewals
- Airport WRF Construction Phasing Evaluation
- Timber Pines Water Quality Study
- US19 UWHCA
- Capacity, Management, Operations and Maintenance (CMOM) Evaluation
- Quality Drive Pumping Station
- Sheriff's Office Emergency Generators

Project Experience Continued

- Former DPW Fleet Maintenance Remedial Action Plan
- Glen Lakes Pumping Station

City of St. Petersburg: Continuing Service Contract
St. Petersburg, FL

Project manager and project engineer for numerous utility engineering improvement projects for City of St. Petersburg under existing as-needed contract. Projects included:

- Oberly Pumping Station Chemical Addition
- SWWRF Gravity Belt Thickener and Odor Control Improvements
- Fleet Maintenance Fueling Upgrades
- Cosme WTP Emergency Generator
- Cosme WTP Solids Contact Basin Improvements

City of Plant City: Continuing Service Contract
Plant City, FL

Project manager and project engineer for numerous utility engineering improvement projects for City under existing as-needed contract. Projects included:

- Update to City Standard Specifications and Details
- Replacement of Pumping Stations 12 and 22
- Evaluation of Project Funding Alternatives
- Construction Inspection Services for SR 574 UWHCA

City of Largo: Continuing Service Contract
Largo, FL

Project manager and project engineer for numerous utility engineering improvement projects for City under existing as-needed contract. Projects included:

- Renewal of water reclamation facility FDEP Operating Permit
- Evaluation of Alternative Surface Water Discharge
- 25th Street Gravity Sewer Improvements

Hillsborough County: Continuing Service Contract
Hillsborough County, FL

Project manager and project engineer for numerous utility engineering improvement projects for County under existing as-needed contract. Projects included:

- Rocky Creek Septic-to-Sewer Evaluation
- Van Dyke Wastewater Treatment Facility Sludge Thickening and Yard Piping Improvements
- Regional Reclaimed Water Interconnectivity and Beneficial Reuse Evaluation
- North Hillsborough Aquifer Recharge Project

ARCADIS Design & Consultancy for natural and built assets

CHRIS HILL, PE, BCEE, ENV SP, CDT

WATER TREATMENT / WATER QUALITY TASK LEADER

EDUCATION

BS Chemical Engineering, Ohio University 1992
BA Business Administration, Ohio University 1992

YEARS OF EXPERIENCE

Total – 25 years
With Arcadis – 16 years

PROFESSIONAL REGISTRATIONS

Professional Engineer (FL, OH, TX)
Envision Sustainability Professional
Board Certified Environmental Engineer
Construction Documents Technologist

PROFESSIONAL ASSOCIATIONS

American Water Works Association (AWWA), Distribution System Water Quality Committee (2002-2015), Chair (2007-2010), Water Desalting Committee (2010-2013), Emerging Water Quality Issues Committee, Vice-Chair (2012-2015), Chair (2015-present), Direct Potable Reuse Standards Committee (2014-present)
Water Environment & Reuse Foundation, Board Member (2016-present),
WateReuse Florida, Advisor to the Board (2017-present), Trustee (2015- 2016), Board Member (2011-15), Desalination Committee, Chair (2011-14), Industrial and Commercial Reuse Committee Chair (2014-2016)
WateReuse Association, Desalination Committee (2011-2014)
Water Environment Federation, Water Reuse Committee (2013-present)

PROFESSIONAL RECOGNITION

2009 FSAWWA Region IV Volunteer of the Year
2010 AWWA Golden Spigot Award

Mr. Hill's experience focuses on drinking water quality and treatment. He has experience in process evaluation, preliminary and detailed design, cost estimating, distribution system operation and management, and construction management. He has completed preliminary and detailed upgrade and new facility designs for water treatment plants ranging in size from 0.25 to 340 million gallons per day (mgd). He has completed master planning for utilities ranging in size from less than 5 mgd to more than 250 mgd. He has conducted distribution system water quality evaluations and treatment optimization studies for utilities throughout the U.S., as well as several research projects for the Water Research Foundation and developing state and federal guidance for compliance with requirements of the Safe Drinking Water Act. His experience includes project management, project scope and budget development, and subcontractor management, and has provided these services to a variety of municipal, federal and industrial clients.

Project Experience

Hillsborough County: North Hillsborough Aquifer Recharge Program

Hillsborough County, FL

Project Manager for the unique indirect potable reuse application consisting of the design and construction of the first of several deep injection wells to be utilized by the county for injection of highly treated reclaimed water to 1) prevent salinization of coastal wellfields, and 2) raise the piezometric head of the freshwater aquifer and increase groundwater availability.

Hillsborough County: Regional Integrated Water Resources Plan

Hillsborough County, FL

Project Officer and Technical Advisor for the evaluation of regional reclaimed water opportunities amongst the Cities of Temple Terrace, Tampa, and Plant City, and Hillsborough County (Phases I and II) and subsequently the City of Lakeland, Polk and Manatee Counties (Phase III). The feasibility study included extensive consideration of water resource sharing and sustainability elements, such as beneficial reuse and aquifer recharge for indirect potable reuse.

City of Flint: Distribution System Optimization Program

Flint, MI

Project Manager for the development of a Distribution System Optimization Program for the city following its well-publicized water crisis. Responsibilities included development of long-term corrosion control program, disinfectant residual maintenance, standard operating procedures, asset management program development, risk-based pipeline rehabilitation and replacement planning, standard operation procedure development and capital planning.

Project Experience Continued

El Paso Water Utility: Advanced Purified Water Treatment Plant – Phase 1
El Paso, Texas

Technical Advisor for the conceptual design of a direct potable reuse project consisting of the addition of denitrification filters to the existing wastewater treatment plant followed by a 10-mgd advance purified water treatment plant (APWTP). The APWTP treatment process included membrane filtration, Nanofiltration and Reverse Osmosis, Ultraviolet/Advanced Oxidation Process and granular activated carbon adsorption. Responsibilities included assisting in determination of the most appropriate treatment process to address potential chemical and microbiological concerns and design review.

City of Venice: Utility Engineer of Record
Venice, FL

Project Officer for various tasks including a water master plan and hydraulic model, clearwell structural assessment, odor control system design, and preliminary engineering of upgrades to the reverse osmosis water treatment plant. Other tasks included project management, quality control, and preliminary and detailed design of miscellaneous improvements.

City of Tallahassee: Water Master Plan Update
Tallahassee, FL

Project Manager for the completion of a Water Master Plan. The City of Tallahassee uses an average of approximately 35 mgd from approximately 30 active wells. The distribution system included more than 1,200 miles of piping and eight elevated storage tanks. The project involved creating and calibrating an "all-pipes" InfoWater hydraulic model, evaluation of alternative water supplies, including reuse and conservation opportunities and development of a 20-year capital improvements program.

Sarasota County: Carlton Water Treatment Facility Upgrade and Expansion
Sarasota, FL

Project Manager for the preliminary and detailed design of the upgrade and expansion of the 12 mgd Carlton Water Treatment Facility (WTF). The Carlton WTF is the largest electrodialysis reversal (EDR) facility in the U.S. Responsibilities included evaluation of EDR upgrade and expansion alternatives, management of detailed design and construction, and development of a county water system operations plan.

Tampa Bay Water: Lithia Hydrogen Sulfide Removal Facility
Tampa, FL

Quality Consultant for the design of 45 mgd side-stream ozone system to control hydrogen sulfide at the Lithia wellfield and water treatment facility. Responsibilities included facility planning, basis of design, and detailed design review, coordination of design disciplines and project documents, construction phase assistance, and overall quality control.

SEAN CHAPARRO, PE
WATER TREATMENT

EDUCATION
MS Environmental Engineer University of Wisconsin-Madison 2002
BS Environmental Engineer Michigan Technological University 2000

YEARS OF EXPERIENCE
Total – 15 years
With Arcadis – 14 years

PROFESSIONAL REGISTRATIONS
Professional Engineer – FL, MI, GA
Con Documents Technologist – CDT

Mr. Chaparro has experience in municipal drinking water process planning, design, and special evaluations. Experience in drinking water treatment includes water quality planning, treatment process evaluations, facility planning, Safe Drinking Water Act compliance assessments, membrane feasibility evaluations, corrosion control, DBP and simultaneous compliance assessments, plant optimization evaluations, and residuals handling and disposal evaluations and design. He has worked on several master planning projects, process evaluations and designs for water treatment plants ranging from less than 1 MGD to 340 MGD.

20-Year Water Master Plan
City of Venice, FL
Project manager and technical lead for a comprehensive water master plan and 20-year capital improvements program for the 4.2 mgd Reverse Osmosis water treatment plant. The project included a detailed assessment of raw water supply, treatment and distribution system needs (including hydraulic modeling) and improvements to meet future growth projections, address redundancy needs, meet increasingly stringent regulatory requirements, and to provide for the rehabilitation or replacement of equipment.

Pinebrook Booster Station Evaluation
City of Venice, FL
Project manager and technical lead for the hydraulic evaluation of the Pinebrook Booster Station. The project assessed options to improve control and minimize variations in distribution system pressures and allow automatic operation of the Pinebrook Booster Station (PBS) while eliminating the current control issues between the RO WTP high service pumps and the booster pumps at the PBS.

RO WTP Odor Control System Improvements
City of Venice, FL
Project manager and technical lead for the preliminary and detailed design of a new odor control system for the City of Venice RO WTP. The odor control system includes two degasifier towers to remove hydrogen sulfide from the liquid stream, and a biotrickling filter to remove gaseous hydrogen sulfide. The project is currently under construction.

Cypress Creek Water Treatment Plan Chemical Feed System Rehabilitation
Tampa Bay Water, Land O' Lakes, FL
Project manager and process mechanical lead for complete rehabilitation of the sodium hypochlorite chemical storage and feed system. As part of the design, completed a detailed evaluation of multiple storage tank configurations and materials (horizontal vs. vertical tanks; polyethylene vs. fiberglass reinforced plastic); and metering pump systems.

Richland Creek Water Treatment Plant
Paulding County, GA
Technical design lead for the ongoing detailed design of a new residuals handling system for the new 18 mgd water treatment plant. The residuals handling system includes a 60-ft diameter gravity thickener and a centrifuge residuals dewatering facility and offload station. Design provisions are included for an ultimate plant expansion to 36 mgd. Also leading the design efforts for a new waste washwater lagoon and associated dechlorination storage and feed system.

Project Experience Continued

Water Treatment Plant Catalyst Site Design Services

Suwannee County, Live Oak, FL

Project manager for the detailed design, permitting and construction administration of a new water treatment plant site and distribution piping to provide potable water to a new industrial logging facility and other future commercial/industrial businesses in the area. Water is supplied by new supply wells for treatment by an onsite water treatment and storage facility and pumped for local distribution through an onsite pumping station.

ESA SCHEDA

Brandon R. Gray

Senior Environmental Scientist

EDUCATION

B.S. Environmental Science and Policy, University of South Florida

13 YEARS EXPERIENCE

CERTIFICATIONS/ REGISTRATION

Authorized Gopher Tortoise Agent, 2017

Qualified Manatee Observer

Qualified Caracara Monitor

Florida Stormwater Management Inspector

FDEP Wetland Delineation Certification, 2005

P.A.D.I Open Water Diver Certification, 2000

USACE Regulatory Road Show – Orlando Florida, 2009

Florida Stormwater Management Inspector (FDEP), 2009, Inspector #21163

CSX Roadway Worker Protection Contractor Safety, 2017

Hillsborough Community College - Ecosystem Restoration and Creation Conference, Assessment of Wetland Mitigation and Mitigation Banks, 2008

Florida Institute of Phosphate Research – Wetland Restoration Workshop, Native Plant Community Restoration and Management in Florida and the Southeast, 2008

Mr. Gray is a well-rounded senior scientist with over 13 years of experience in both the consulting and regulatory (EPCHC) sectors. He has managed and provided wetland and wildlife experience on a number of private and commercial developments and roadway projects throughout the state of Florida. Mr. Gray has participated in a wide variety of environmental projects, such as Developments of Regional Impact (DRI), Environmental Resource Permit applications (ERP), United States Army Corps of Engineers (USACE) dredge and fill applications, UMAM evaluations, rezoning applications, wetland violation resolutions, biological assessments, wetland delineations, wetland mitigation monitoring and coordination, threatened and endangered species surveys and permitting, seagrass and benthic habitat assessments, water quality sampling, as well as number of other environmental consulting services. He has also been responsible for the design, monitoring methodology, and implementation of numerous mitigation and restoration projects throughout Florida.

Relevant Experience

Hudson Channel Seagrass Mitigation Monitoring, Pasco County, FL. (Pasco County) Mr. Gray was the project manager responsible for monitoring and reporting on the seagrass mitigation associated with the widening of the Hudson Channel. Project responsibilities included monitoring over 450 acres of seagrass protection zones to quantity seagrass density and coverage's over a five year monitoring period. The project was ultimately released by USACE and FDEP following the conclusion of the five year monitoring period.

Miscellaneous Canal Dredging Feasibility Studies - (City of Longboat Key) Mr. Gray was responsible for determining the presence and extent of seagrass species within 5 canals off of Longboat Key in Manatee County. Seagrass surveys consisted of wading, snorkeling, and GPS'ing the extent of seagrass communities to determine potential impacts associated with dredging these canals. Following the field visit, he wrote a memorandum describing the permitting implications and characteristics of the benthic communities.

Tampa Bay Association of Environmental Professionals – Rapanos Permitting Seminar, 2008

Hydric Soils Training with Wade Hurt from the Natural Resources Conservation Service, USDA, 2007

NOAA/Sea Grant – Managing Small Docks and Piers Workshop, 2006

FDEP Wetland Delineation Certification, 2005

U.S. Dept. of Labor - Mine Safety and Health Administration Training, 2005

P.A.D.I Open Water Diver Certification, 2000

PROFESSIONAL AFFILIATIONS

Society of Wetland Scientists

AREAS OF SPECIALIZATION

Wetland Jurisdictional Determinations

Wetland Permitting

Wetland Mitigation Design

Mitigation Monitoring

Flora and Fauna Identification

Threatened and Endangered Species Survey & Permitting

Benthic Resource Surveys

Water Quality Sampling

Wetland Ecology

Biological Assessments

Habitat Mapping

Countywide Wetland Mitigation Monitoring and Maintenance for Pasco County, FL. (Pasco County) Mr. Gray serves as both the project manager and lead scientist on this project and is responsible for the coordination of all of Pasco County's wetland mitigation projects, ensuring compliance with all of the wetland mitigation success criteria set by USACE, FDEP, and SWFWMD monitoring requirements. Mr. Gray has conducted semi-annual monitoring and reporting for all the wetland mitigation areas and ensured that monitoring reports are submitted to the appropriate agencies in a timely manner. He evaluates the health of the wetland systems in relation to the success criteria required by the regulating authorities, and makes recommendations for any further actions that need to be taken. Mr. Gray also coordinates quarterly maintenance events to control the encroachment of nuisance and exotic species. He prepares the annual summary report for all of the County's wetland mitigation projects.

City of St. Petersburg – Pier 5 and Vinoy Basin Water Sampling, Pinellas County, FL. (City of St. Petersburg) This project involved multi-day and multi-parameter daily sampling and 24-hour sampling for a 27-acre basin located in downtown St. Petersburg, Pinellas County, Florida. ESA Scheda was tasked with collecting dissolved oxygen (DO), pH, salinity, depth, and temperature measurements using YSI Environmental Monitoring water quality meters at two sampling stations. ESA Scheda also collected water quality samples for metals (total arsenic, cadmium, chromium VI, copper, lead, and zinc), total polycyclic aromatic hydrocarbons, oil and grease, and fecal and total coliforms, with one field duplicate sample collected at each sample station. With respect to DO, diel samples were collected every 4 hours for a 24-hour period at 1-foot below the surface, mid-depth, and 1-foot above the bottom for both sampling stations. Fecal and total coliform samples were collected daily for 10 days and delivered to the testing laboratory within six hours of collecting the sample. Finally, a monitoring report with all of the appropriate data presented in a tabular format was presented to the Client and the Florida Department of Environmental Protection.

Lake Sperry and Cedar Creek Dredging Feasibility Study, Pinellas County, FL. (City of Dunedin) Mr. Gray was the lead scientist responsible for conducting natural resource surveys and water quality sampling associated with a feasibility study for dredging excess silt from Lake Sperry and portions of Cedar Creek in Dunedin, Florida. Project tasks consisted of delineating the jurisdictional wetland limits, seagrass surveys, mapping mangroves, collecting water samples for fecal coliform bacteria, and preparing a memorandum to discuss the associated permitting implications.

Ballast Point Seagrass Transplant and Monitoring, Hillsborough County, FL. (City of Tampa) Mr. Gray was the project manager responsible for relocating over 90 square feet of shoal grass (Halodule wrightii) from the impact footprint of a proposed boat ramp in Tampa Bay. A modified shovel technique was used to harvest the seagrass and was transported 200 yards to the recipient site where it was to be relocated. He also is responsible for semi-annual monitoring and annual reporting to ensure that the site achieves the permitted success criteria.

Pasco County Stormwater Maintenance, Management, and Geodatabase Creation, Pasco County, FL. (Pasco County) Mr. Gray is the project manager and lead scientist for collecting environmental data, coordinating maintenance and planting events, and creating a geodatabase to track all stormwater pond management activities. Currently, Mr. Gray is responsible for monitoring and maintaining over 140 stormwater ponds throughout Pasco County and provides recommendations and technical support to Pasco County's Stormwater Management Division.

ESA SCHEDA

Bradford Young, M.S.

Senior Environmental Scientist

EDUCATION

M.S., Botany University of South Florida

B.S., Botany University of South Florida

31 YEARS EXPERIENCE

CERTIFICATIONS/ REGISTRATION

Certified Arborist

FDEP Qualified Stormwater Management Inspector

United States Coast Guard Certified Master Captain

Commercial Pesticide Applicator License- Natural Areas Endorsement

AREAS OF SPECIALIZATION

Wetland Jurisdictional Determinations

Wetland Identification

Wetland Mitigation & Habitat Restoration Design

Wetland Ecology

Floral Studies/Identification

Wildlife and Habitat Surveys

Aerial Photo Interpretation

Plant Community Mapping

Environmental Permitting and Permit Compliance

Construction Management

USCG Licensed Captain

As a scientist for more than 30 years, Mr. Brad Young has been involved in detailed biological and ecological assessments, threatened and endangered species surveys, impact analysis, and the preparation of related reports and permit applications (Federal, State, and local) for a wide variety of port, surface transportation and development projects. Mr. Young's knowledge in wetland ecology includes the delineation of both freshwater and estuarine wetlands in accordance with Federal and State delineation methodology and has lead a local team involved with wetland delineation disputes.

He is knowledgeable in all phases of habitat restoration and other environmental projects including planning, design, permitting, construction, planting, and monitoring. He regularly conducts habitat aerial photo interpretation, ground-truthing, characterization, and mapping. Areas of particular expertise include Florida botanical identification, horticultural knowledge, and construction. His many years working as a Florida ecologist are combined with nearly 25 years overseeing the construction of various environmental and transportation projects.

Relevant Experience

Springs Coast Submerged Aquatic Vegetation (SAV) Aerial Photographic Verification, Levy, Citrus, Hernando and Pasco Counties, FL. (SWFWMD) The SAV aerial verification project for the coastal areas of Pinellas to Charlotte Counties was expanded in 2013 to include the Springs Coast extending from Levy County to Pasco County. The project was reissued with new aerial photographs flown in 2016. Mr. Young assisted with both projects, with the mapping of the second project presently ongoing, with recent completion of the field verification aspects. The first phase of the current project utilized 750 random generated GPS locations within potential SAV habitat throughout the four county area and up to 20 miles offshore. This was completed in the summer of 2016. Acting as project Captain, Captain Young took SWFWMD personnel to these locations and assisted in the assessment for SAV or hard bottom presence. Sites submerged characteristics were recorded via real time video as well as recorded video, along with limited snorkel diving, in order to accurately describe the seagrass, attached macroalgae, sponge and hard bottom communities. The second phase was recently completed and involved visiting a likewise number of locations requested by the mapping entity in order to resolve map signature uncertainties or questions.

Lemon Bay Habitat Improvements AKA Wildflower Preserve, Charlotte County, FL. (SWFWMD and Lemon Bay Conservancy) Mr. Young assisted ESA Scheda scientists on this project which involved the enhancement, restoration, and creation of coastal ecosystems habitats, and water quality improvements for Charlotte Harbor. The property was a former golf course that turned fallow and was purchased by the Lemon Bay Conservancy to be converted into the Wildflower Preserve. The project involved wetland delineations, water level recorders, listed species surveys, and conceptual through 100 percent design plans. The project

habitat improvements consisted of a total of 42.5 acres of uplands will be cleared of nuisance species and replanting with native species, 26 acres of wetland creation/restoration, and 11 acres of wetland enhancement through the removal of nuisance species and replanting with native species.

Cockroach Bay Mitigation for Port Redwing, Hillsborough County, FL. (SWFWMD) Due to a change in previously permitted plans, the Tampa Port Authority acquired the services of Scheda Ecological Associates (Scheda) to research and transfer previous mitigation requirements off the Port Redwing Terminal property. Scheda identified and evaluated other publicly owned sites (ELAPP, SWFWMD, etc.) that could be used for mitigation purposes. Ultimately, a parcel owned by Hillsborough County and managed by the SWFWMD was selected at Cockroach Bay. The ultimate plan resulted in the restoration of over 70 acres of wetland communities (mangroves and coastal freshwater ponds) to complete the 15-year effort to restore the 695-acre Cockroach Bay parcel. Mr. Young was instrumental in the restoration design, including assisting the constructability of the project by designing and permitting the dewatering protocol of the nutrient laden pre-construction shell mined pit that is adjacent to OFW classified Cockroach Bay. Mr. Young also performed close CEI inspection oversight as well as performed the required water quality monitoring during the construction dewatering. Mr. Young is also performing ongoing mitigation monitoring as required by permit conditions.

Rock Ponds Habitat Restoration Project, Hillsborough County, FL. (SWFWMD). Mr. Young assisted SWFWMD-SWIM in the design and permitting of this massive restoration project situated on the shore of Tampa Bay. The project parcel is in excess of 2500 acres and restoration design includes a habitat mosaic approach in creating over 220 acres of estuarine, oligohaline and palustrine wetland habitat, preservation and enhancement of over 1700 acres of estuarine and coastal habitat, restoring a 153 acre former open mine pit into estuarine and oligohaline habitat by filling and reshaping the pit contours while connecting the hydrology to tidal exchange, and restoring almost 300 acres of pine flatwood habitat. Mr. Young was also extensively involved in the environmental CEI oversight of the project construction which was completed in November, 2015.

Apollo Beach Shoreline Protection & Restoration Project, Hillsborough County, FL. (Hillsborough County) Mr. Young provided environmental support to the Design Build Team to assess, design, permit, and implement this shoreline restoration and protection project. Mr. Young assisted in developing the seagrass mitigation plan to address the unavoidable seagrass impacts associated with this project, including implementing the seagrass transplanting and post mitigation monitoring plans. This project was permitted within an accelerated schedule and included the transplantation of the impacted shoalgrass into the adjacent Apollo Beach Park Preserve. Mr. Young is currently assisting Scheda scientist with the permit required monitoring program for both the shoreline vegetation restoration as well as the seagrass transplant portions of the project.

ESA SCHEDA

Eric Bjerregaard

Landscape Inspector

EDUCATION

A.A., Business Management, Tallahassee Community College

28 YEARS EXPERIENCE

CERTIFICATIONS/ REGISTRATION

SWPPP Inspector Certification

Advanced Maintenance of Traffic Certification

Nursery Operations Certification

AREAS OF SPECIALIZATION

Landscape Inspection

Warranty Inspection

Landscape maintenance

Horticultural Knowledge

Plant Diseases

TIN # B262-203-55-223-0

Mr. Bjerregaard has over 28 years of experience in the landscape industry. His experience has included managing private estates, enhancing athletic venues, and landscape installation and warranty inspections for numerous transportation projects. His specific skills include landscape enhancement design, landscape delivery and installation inspections, and landscape maintenance (including pruning, fertilizing, and pest control). Mr. Bjerregaard is also experienced in designing and installing landscape plantings and irrigation systems, and has supported design efforts with field conditions and soils assessments.

Mr. Bjerregaard is knowledgeable with regard to various plant diseases and mineral deficiencies. In addition, as a longtime nurseryman in Florida, he has developed strong working relationship with professionals at the Florida Department of Agriculture and Consumer Services, Division of Plant Industry. Mr. Bjerregaard is familiar and well versed with the Florida Grades and Standards (nursery plants

Relevant Experience

Beach Boulevard (SR 212) (MP 12.047-MP 14.), Duval County, FL (FDOT D2) This $1,113,148 Bold Landscape project included a 155-day construction phase and 730-day establishment phase. This project is an extension of a recently completed Bold landscaping serving the heavily traveled gateway to Jacksonville Beach. Construction components included the relocation of 94 existing Sabal Palms as well as instillation of 173 Regenerated Sabals, 29 Wild Date Palms, 44 Medjool Date Palms, 3-Live Oaks, and 1,138 Paspalum grasses. This project also incorporated a low volume drip irrigation system utilizing both potable and reclaimed water sources from two municipalities. Mr. Bjerregaard provided assistance to ESA Scheda's Project Manager on this landscaping project.

Polk Parkway SR570 East & West Interchanges, Polk County, Florida. (Florida Turnpike Enterprise) This $1,500,000 Bold Landscape project included two major interchanges connecting Polk Parkway to I-4. The project incorporated new trees/palms into existing landscape. Nearly two thousand (1,886) trees and palms were successfully planted for the project during a 75-day construction phase and the project has a 730-day establishment period. Mr. Bjerregaard was the senior inspector for the project.

Seminole Expressway SR417 Northern Gateway, Seminole County, Florida. (Florida Turnpike Enterprise, 2015-2016) This was the first Bold Landscape project for the Florida Turnpike in Seminole County, with construction costs at $697,000. Mr. Bjerregaard was the landscape inspector on this project that beautified the Northern entrance onto SR417. 942 trees/palms were successful installed within a series of interchanges and toll facilitates. Example of plant material installed – 18', 20', 24'CT Date Palms, 60-gallon Live Oak, 12'-28' Sabal palms (root regenerated), 15-gallon to 45-gallon pines. Project had a 180-day construction phase and 730-day establishment.

Veterans Expressway SR 589 Landscaping, Hillsborough County, Florida. (Florida Turnpike Enterprise) This landscape project covers three sections of an ongoing Construction widening effort. Mr. Bjerregaard provides landscape inspection support to all three sections that includes plant grade inspection, approval of plant layout, quantity verification, creation of red-line as-builts of installation and progress meeting representation of landscape issues.

Palmetto Expressway from 42nd to 62nd Ave. Miami Gardens (MP18.55 - MP20.547), Miami-Dade County, Florida. (FDOT D6) This stand-alone landscape project in urban, heavily traveled Miami Gardens required elaborate MOT including multiple lane and shoulder closures impacting, exit and entrance ramps as well as service roads. The landscape plan included a variety of sub-tropical and temperate native and ornamental trees, palms and shrubs including: Gumbo Limbo Bismarckia, Floss Silk Tree, Solitaire Palm, Bridal Bouquet, Phoenix Sylvestris, Live Oak, Mahogany, Sabal Palms, Purple Tabebuia, Winin Palm, Red Tip Cocoplum, Silver Buttonwood, Green Island Ficus, Thryallis, Firebush, Firebush, Dwarf Yaupon Holly, Slash pine, Saw Palmetto. Irrigation was supplied by water truck.

US 41 Landscaping – Naples (MP10.266 – MP11.003), Collier County, Florida. (FDOT D1) This landscape project was part of a larger highway improvement project and included decorative pavers and an automated low volume drip irrigation system utilizing reclaimed water and requiring multiple directional bores to supply the system. The landscape design was composed of large flowering trees and palms as well as decorative flowering shrubs and groundcovers. The plant pallet consisted of Queen Crepe Myrtle, Royal Palm, Solitaire Palm, Pigmy Date Palm, Sandcord Grass, Firebush, Flax Lily, Holly Fern, Sunshine Mimosa, Blue Pacific Juniper, Green Island Ficus.

Big I, I-95 at I-10, SR-9 (MP2.379-MP3.541), Duval County, Florida. (FDOT D2) This 2.4-million-dollar project was the first Bold landscape project in District-2. In all 1,065 4-inch caliper trees and 590 palms including 490 Regenerated Sabal palms, 59 Washingtonian and 41 "Medjool" Date palms, as well as 7,652 ground covers were planted. The irrigation system required 13 separate point of connections which utilized both water main taps and fire hydrant connections with meters backflow protection. 68 individual zones were operated by battery powers control valves. The urban setting combined with Interstate highway speeds and multiple on and off ramps made safety and MOT especially challenging on this project. Mr. Bjerregaard was the day to day inspector throughout the construction phase.

I-75 @ SR 136 Interchange Landscaping, Suwannee County, Florida. (FDOT) This $247,772 landscape project for this I-75 interchange included 235 native flowering and shade trees, 20 sabal palms, and 156,629 groundcovers at the rural exit. Mr. Bjerregaard was the daily inspector throughout the construction phase.

I-75 @ US 90 Interchange Landscaping, Columbia County, Florida. (FDOT D2) This $290,515 landscape project included 167-large shade, and flowering trees including Live Oak, Magnolias and Crape Myrtles, Sabal Palms and 1,4191 Paspalum grass at the exit to the District 2 Office in Lake City. Mr. Bjerregaard was the daily inspector throughout the construction phase.

HENRI V. JEAN, P.E.

Principal Geotechnical Engineer

TIERRA
GEOTECHNICAL • MATERIALS
ENVIRONMENTAL • ENGINEERING

Summary of Capabilities
Geotechnical Engineering
Civil Engineering
Project Management
Engineering Management
Ground Subsidence Investigations

Years of Experience
With Tierra: 16 Years
With Other Firms: 9 Years

Education
BS, Civil Engineering, University of South Florida, 1990

Professional Organizations/Registrations
Florida Professional Engineer, No. 55420
Florida Institute of Consulting Engineers, FICE
GMEC
National Society of Professional Engineers

Mr. Jean has over 26 years of experience and is responsible for the overall operations and management of the Tierra's Central Florida Geotechnical Services. This includes the planning, coordination and management of a wide variety of geotechnical projects throughout Florida.

Mr. Jean's project experience includes providing geotechnical consultant services for municipalities, general site development, industrial facilities, wastewater treatment plants, FDOT Districtwide Services, numerous roadway soil surveys and structures projects, sinkhole investigations, and stormwater management designs. His project experience includes designing new roadway alignments through sensitive environmental areas, high level embankments, MSE walls, alignments over compressible soils and single span to multi level fly over structures.

CITY of GENERAL ENGINEERING CONSULTANT PROJECT EXPERIENCE

City of St. Petersburg
City of Clearwater
City of Tarpon Springs
City of Tampa
City of Temple Terrace

Project Experience within Pinellas County

22nd Avenue South, from 58th Street South to 34th Street South, Pinellas County
US 19, from Sunset Point Road to Countryside Boulevard, Pinellas County
US 19, from 118th to 49th Street, Pinellas County
Bayou Grande Bridge, Clearwater, Florida
SR 699 (Gulf Boulevard), from N of SR 666 to Colony Circle, Clearwater, Florida
Clearwater Fire Rescue Station No. 49, Clearwater, Florida
US 19 (SR 55), from Seville Drive to SR 60, Pinellas County, Florida
Pinellas Bayway Bridge, St. Petersburg, Florida
Clearwater Pass Bridge, Pinellas County, Florida
Indian Rocks Bascule Bridge, Pinellas County, Florida
49th Street and Roosevelt Boulevard, Pinellas County, Florida
Racetrack Road and Douglas Road, Pinellas County, Florida
CR 296, East of 40th Street to W of 28th Street, Pinellas County, Florida
East-West Extension of Pinellas Trail, Pinellas County, Florida
MLK, US Alternate 19 to Banana Street, Pinellas County, Florida
Central Ave & 58th Street, Pinellas County, Florida
US 19 (SR 55), Live Oak to County Line Road, Pinellas County, Florida
SR 580 and Moccasin Creek, Pinellas County, Florida

District VII

I-75 (SR 93) at CR 581 (Bruce B. Downs Blvd) Flyover, Hillsborough County
I-75 (SR 93), from South of Fowler Avenue to South of CR 581, Hillsborough County
I-75 (SR 93), from North of CR 54 to North of SR 52, Pasco County
I-75 (SR 93), from North of SR 52 to Pasco/Hernando County Line, Pasco County
I-75 (SR 93), from the Pasco/Hernando County Line to SR 50, Hernando County
I-75 (SR 93), from North of SR 50 to Sumter County Line, Hernando County
SR 688 (Ulmerton Road), from El Centro/Ranchero to West of US 19, Pinellas County
SR 688 (Ulmerton Road), from East of US 19 to 49th Street, Pinellas County
SR 688 (Ulmerton Road), from 49th Street to Roosevelt Boulevard, Pinellas County
SR 688 (Ulmerton Road), from W of Lake Seminole Bypass Canal to E of Wild Acres Rd, Pinellas County
SR 688 (Ulmerton Road), from Wild Acres Road to El Ranchero Boulevard, Pinellas County
SR 686 (CR 296/Roosevelt Blvd), from 49th Street Bridge to North of Ulmerton Road, Pinellas County
118th Avenue (CR 296), from E of US 19 to E of Roosevelt/CR 296, Pinellas County
US 19, from Sunset Point Road to Countryside Boulevard, Pinellas County
US 19, from 118th to 49th Street, Pinellas County
SR 50, from US 19 (SR 55) to West of CR 587 (Mariner Boulevard), Hernando County
SR 50, from Mariner Boulevard to Suncoast Parkway, Hernando County
CR 578, from US 19 to W of Cobblestone Dr, Hernando County
CR 578, from Mariner Blvd to Suncoast Parkway, Hernando County
I-4 / Crosstown Connector Segment 3C, from 7th Avenue to the Crosstown Expressway including Connections to 22nd Street, Hillsborough County
I-4 / I-275 Downtown Interchange: Soil Nail Walls, Hillsborough County

District I

SR 70, from W of 34th Avenue to Berman Road, Okeechobee County
I-75 (SR 93), from North of River Road to North of SR 681, Sarasota County
I-75 (SR 93), from South of Bonita Beach Road to South of Corkscrew Road, Lee County
I-75 (SR 93) and Corkscrew Road Interchange, Lee County
I-75 (SR 93), from North of Daniels Parkway to South of Colonial Boulevard, Lee County
I-75 (SR 93), from North of SR 80 to North of SR 78, Lee County
I-75 (SR 93), from South of SR 78 to the Charlotte County Line, Lee County
SR 559, from 655 to South of Derby Ave, Polk County
I-4, from Hillsborough County Line to East of 10th Street, Polk County
I-4, from East of 10th Street to East of U.S. 98, Polk County
Snake Road at North Feeder Canal Bridge, Hendry County
CR 833 (Snake Road), from I-75 to Six Miles South of CR 835, Hendry County
US 27 Weigh in Motion (WIM) Stations, Highland and Glades Counties
US 301, from Woods Street to S of University Parkway, Sarasota County
Snake Road Segment 1A, from I-75 to the Miccosukee Reservation Boundary, Broward County

LARRY P. MOORE, P.E.

Principal Geotechnical Engineer

TIERRA
GEOTECHNICAL • MATERIALS
ENVIRONMENTAL • ENGINEERING

Summary of Capabilities
Roadway, Corridor and Bridge Studies
Geotechnical Engineering
Project Management
Deep Foundation Evaluation
Embankment Design
Construction Monitoring
Land Subsidence Investigations
Mine Tailings and Dredge Material Disposal Planning

Years of Experience
With Tierra: 9 Years
With Other Firms: 18 Years

Education
BS, Civil Engineering, University of South Florida, 1987

Professional Organizations/Registrations
Florida Professional Engineer, No. 47673
American Society of Highway Engineers

Mr. Moore has over 27 years experience in geotechnical engineering for projects throughout Florida, Texas, and South Carolina. The projects that Mr. Moore has been involved with have ranged from roadway and bridge design and construction to embankment design and construction associated with mine tailings deposition.

Mr. Moore has been the Senior Project Engineer for numerous roadway soil surveys and bridge foundation designs and construction projects. Mr. Moore has managed test and production pile and drilled shaft installations involving timber, steel and prestressed concrete piles and drilled shafts for numerous bridge foundations and industry and building construction applications.

PROJECT EXPERIENCE WITHIN PINELLAS COUNTY

Pinellas County
Belleair Beach Causeway Bridge Replacement
Signalization Study: 150th Avenue North at 58th Street North
McMullen Booth Road at Enterprise Road Intersection Improvements
22nd Avenue South, from 58th Street South to 34th Street South PD&E Study
102nd Avenue, from 125th Street to Ridge Road
62nd Avenue North, from 49th Street North to 34th Street

Municipalities
City of St. Petersburg: Mast Arms: 1st And 2nd Street South
City of St. Petersburg: 4th Street South Bridge Replacement Over Booker Creek
City of St. Petersburg: Storm Drainage Improvements: 30th Avenue North, 29th Street North and Vicinity
City of St. Petersburg: Pinellas Trail/34th Street Pedestrian Bridge
City of St. Petersburg: Jungle Lake Outfall Storm Drainage Improvements
City of St. Petersburg: Clam Bayou Recreational Trail Phase II
City of St. Petersburg: 54th Avenue South Median Modification
City of Tarpon Springs: Brick Street Improvements: Pineapple Street, from Grand Blvd to Bay Street
City of Tarpon Springs: East Lemon Street, from East of Alternate 19 to Levis Avenue
City of Tarpon Springs: Public Services Building Expansion
City of Tarpon Springs: Community Center Sinkhole Investigation and Remediation
City of Clearwater: Clearwater Reclaimed Water Distribution Systems Design
City of Clearwater: Glen Oaks/Palmetto Water Transmission and Distribution Project
City of Largo: New East-West Roadway connecting Community Center to proposed Recreation Center

FDOT District VII
I-275, from west of SR 60 to Spruce Street Interchange, Hillsborough County
I-4 (SR 400) Westbound, from West of Orient Road to West of I-75, Hillsborough County
I-75 (SR 93), from South of Fowler Avenue to South of Bruce B. Downs Boulevard in Hillsborough County
I-75 (SR 93), from North of SR 50 to Hernando/Sumter County Line in Hernando County
US 19 (SR 55), from West Jump Court to West Fort Island Trail (CR 44), Citrus County

US 19 (SR 55) over Northeast Coachman Road, Pinellas County
US 19 (SR 55), from N of 49th Street to N of 118th Avenue North, Pinellas County
US 19 (SR 55), from Sunset Point Road to Countryside Blvd., Pinellas County
US 19 (SR 55), from Seville Boulevard to North of SR 60, Pinellas County
US 19 (SR 55), from CR 578 (County Line Rd.) to south of Toucan Trail, Hernando County
US 41 (SR 45), from South of Cone Pit Road to South of SR 52, Pasco County
CR 578 (County Line Road), from Suncoast Parkway to US 41, Hernando County
I-275 Improvements: Big Island Gap – Pile Driving Analyzer (PDA) Services, Pinellas County
I-275 Noise Walls, Hillsborough County
I-4 / Crosstown Connector Segment 3C, from 7th Avenue to the Crosstown Expressway (Including Connections to 22nd Street), Hillsborough County
I-4, 14th Street to 50th Street, Hillsborough County
SR 50 (Cortez Blvd.) from US 19 to CR 587 (Mariner Blvd.), Hernando County
SR 574 (Martin Luther King Jr. Blvd.) at I-75, Hillsborough County
SR 597 (Dale Mabry Hwy) Improvements from Humphrey Street to Van Dyke Road, Hillsborough County
SR 580 (Busch Boulevard), from West of Florida Ave to East of 56th Street, Hillsborough County
SR 694 (Gandy Blvd) from West of 9th Street to East of 4th Street, Pinellas County
I-75 (SR 93), from North of SR 52 to Pasco/Hernando County Line, Pasco County
SR 54, from West of Suncoast Parkway to West of US 41, Pasco County

FDOT District I

I-75 (SR 93), from North of Daniels Parkway to South of Colonial Boulevard, Lee County
I-75 (SR 93), from North of SR 80 to North of SR 78, Lee County
I-75 (SR 93), from South of SR 78 to the Charlotte County Line, Lee County
I-75 (SR 93), from North of University Parkway to Moccasin Wallow Road PD&E Study, Manatee County
I-75 (SR 93), from SR 681 to North of University Parkway PD&E Study, Manatee and Sarasota Counties
I-4 *Design/Build*, from Lakeland to Osceola County Line, Polk County
I-4 *Design-Build*, from US 98 to CR 557, Polk County
SR 80, from Birchwood Parkway to Dalton Lane, Hendry County
SR 80, from West of Clark Street to Birchwood Parkway, Hendry County
Ringling Causeway and Bridge Replacement *Design/Build*, Sarasota County
US 27, North of SR 60 to Towerview, Polk County
US 41, from Corkscrew to San Carlos Boulevard, Lee County
US 41 Business, from Littleton Road to US 41, Lee County
SR 31 from SR 80 to North of CR 78 (N. River Road), Lee County
SR 82 from Lee Blvd. to Shawnee Road, Lee County
SR 82 from Shawnee Rd. to Alabama Road, Lee County

FDOT District V

I-4 Ultimate widening of Interstate 4 from Kirkman Road to east of SR 434, Orange and Seminole Counties
SR 15, from North of Ponce De Leon Boulevard to North of SR 40, Volusia County
SR 44 (CR 44B), from SR 500 to SR 44, Lake County
SR 500 (US 192), from Aeronautical Boulevard to Buddinger Avenue, Osceola County
SR 500 (US 192), from Eastern Avenue to CR 532, Osceola County
Osceola Parkway and I-4 Interchange PD&E Study, Orange County
US 192/SR 530 Widening and Improvements, Osceola County
Broadway Bridge/SR 600, Volusia County
SR 434 Widening, Seminole County
I-4/46A Interchange, Seminole County
Maitland Boulevard Extension, Orange and Seminole Counties

KEVIN W. LO, P.E.

Senior Geotechnical Engineer

TIERRA
GEOTECHNICAL • MATERIALS
ENVIRONMENTAL • ENGINEERING

Summary of Capabilities

Roadway Soil Survey Studies
Highway Bridge Foundation Studies
Design Level Geotechnical Engineering
Shallow and Deep Foundation Engineering
Retaining Wall System Design
Dynamic Pile Load Testing
Slope Stability and Settlement Evaluations
In-Situ Soil Improvement
Seismograph Monitoring and Vibration Analysis
Ground Subsidence Investigations
Project Management

Years of Experience

With Tierra: 11 Years
With Other Firms: 11 Years

Education

M.S., Civil Engineering, University of Florida, 1995
B.S., Civil Engineering, Tamkang University, Taipei, Taiwan, 1990

Professional Organizations/Registrations

Florida Professional Engineer, No. 56959
American Society of Civil Engineers

Mr. Lo has over 22 years of experience in geotechnical study for roadway and bridge design, commercial, and residential projects. His experience includes shallow and deep foundation analyses, retaining wall system design, settlement and slope stability analyses, and pavement evaluation. Mr. Lo also has extensive experience in dynamic load testing of driven piles utilizing a Pile Driving Analyzer (PDA) with CAPWAP analyses for production pile length and driving criteria recommendations. In addition, his experience includes management of the FDOT Districtwide Geotechnical Services Contract for District I. Currently, Mr. Lo is the project manager on several large-scale bridge and roadway projects for the FDOT Districts I and VII.

FDOT PROJECT EXPERIENCE

Districtwide Geotechnical Contracts – FDOT Districts I and VII

District VII

D/W Pushbutton Contract – Design Build
I-4 / Crosstown Connector Segment 3C, from 7th Avenue to the Crosstown Expressway, Hillsborough County
Roosevelt Boulevard/CR 296/I-275 Connector for Stages II and III, Pinellas County
SR 60, from Courtney Campbell Causeway to South of Fish Creek, Hillsborough County
SR 60 Bridge at Clearwater Harbor, Pinellas County
SR 60 Interim Intersection Improvements at US 19, Pinellas County
SR 679 (Pinellas Bayway), from the South Approach to the North Approach, Pinellas County
SR 686 at I-275 Interchange, Pinellas County
SR 686 Connector, from East of 40th Street North to West of 28th Street North, Pinellas County
SR 694 (Gandy Blvd), from West of 9th Street to East of 4th Street, Pinellas County
US 19, from South of Coachman Road to North of Sunset Point Road, Pinellas County
US 19, from South of Seville Boulevard to North of SR 60, Pinellas County
US 19 from North of 49th Street to North of 118th Avenue North, Pinellas County
US 19, from West Jump Court to West Fort Island Trail, Citrus County
I-275, from Westshore to Himes Avenue, Hillsborough County
US 301, from South of Sligh Avenue to South of Tampa Bypass Canal, Hillsborough County
I-75/I-275, from North of US 41 to South of SR 56, Hillsborough and Pasco Counties
I-75 (SR 93), from SR 56 to CR 54, Pasco County
I-75 (SR 93), from North of CR 54 to North of SR 52, Pasco County
I-75 (SR 93) over Cypress Creek, Pasco County
I-75 (SR 93), Bridge Replacements over SR 50, Croom Road and Withlacoochee River, Hernando County
I-75 (SR 93), from North of SR 50 to Hernando/Sumter County Line in Hernando County

I-75 (SR 93), from South of Fowler Avenue to South of Bruce B. Downs Boulevard in Hillsborough County
US 41, from SWFWMD Entrance to Powell Road, Hernando County
US 98, from Suncoast Parkway to US 19, Hernando and Citrus Counties
SR 44, from US 41 to CR 470, Citrus County

District I
I-75 (SR 93) PD&E Study, from SR 951 to Collier/Lee County Line, Collier County
I-75 (SR 93) *Design/Build*, I-from South Colonial Boulevard to South of SR 82, Lee County
I-4 *Design-Build* (Section 2), from East of US 98 to East of CR 557, Polk County
I-75 (SR 93) *Design/Build*, from North of Golden Gate Parkway to South of SR 80 including Immokalee Road and Daniels Parkway Interchanges, Lee and Collier Counties
I-75 (SR 93) *Design/Build*, at SR 70 and US 301 Interchanges, Manatee County
SR 80, from Birchwood Parkway to Dalton Lane, Hendry County
SR 80, from Dalton Lane to Indian Hills Drive, Hendry County
SR 80, from West of Clark Street to East of Birchwood Parkway, Hendry County
SR 82, from Lee Boulevard to Shawnee Road, Lee County
SR 82, from Alabama Road to South of Homestead Road, Lee County
I-4 (Section 4), from East of SR 33 to East of SR 559, Polk County
I-4 at US 98 Interchange, Polk County
I-4 and US 27 Interchange, Polk County
SR 70 Bridge Replacements, Sarasota County
SR 70, from Tara Boulevard to Lakewood Ranch Boulevard, Manatee County
Metro Parkway from Winkler Avenue to North of SR 82, Lee County
I-75 (SR 93) and Corkscrew Road Interchange, Lee County
I-75 (SR 93), from North of SR 80 to North of SR 78, Lee County
I-75 (SR 93), from South of Bonita Beach Road to South of Corkscrew Road, Lee County
I-75 (SR 93), from North of Daniels Pkwy to South of Colonial Boulevard, Lee County
I-75 (SR 93), from North of River Road to North of SR 681, Sarasota County
I-75 Cable Barrier Installation from South of Jones Loop Road to North of Airport Road, Charlotte County
I-275 Cable Barrier Installation from I-75 to the Skyway Bridge, Manatee County

District II
I-10 Rest Area Replacement, Duval County
Old Kings Road/9 Mile Creek Bridge Replacement, Duval County

Florida's Turnpike Enterprise
HEFT from US 1 to SR 874, Miami-Dade County
Sawgrass Expressway *Design-Build* from Atlantic Avenue to Coral Ridge Drive, Broward County
I-75/Turnpike – Wildwood Interchange Modification *Design-Build*, Sumter County
Veteran's Expressway Widening from North of Memorial Highway to South of Gunn Highway, Hillsborough County
Turnpike Mainline Widening from Beulah Road to SR 50, Orange County
Suncoast Parkway 2, Section 1 from US 98 to North of Cardinal Street, Hernando and Citrus Counties
Suncoast Parkway 2, Section 2 from North of Cardinal Street to North of CR 486, Citrus County

FDOT District V
SR 15, from North of Ponce De Leon Boulevard to North of SR 40, Volusia County
SR 44 (CR 44B), from SR 500 to SR 44, Lake County

FDOT District III
Niceville High School Pedestrian Bridge, Okaloosa County

SECTION 4

FIRM QUALIFICATIONS AND SERVICES

Firm Qualifications and Services

Established in 1966, Pennoni is a multidisciplinary firm that employs over 1,150 professional, technical, and administrative personnel in offices strategically located to best serve our growing list of clients around the world.

Pennoni provides services to local, state, and federal governments and private, commercial, industrial, and construction clients, as well as to other professional firms. We specialize in working with stormwater, roadways, utilities, providing civil engineering, structural design services and construction management.

Pennoni currently offers a broad range of professional services including: transportation, stormwater, traffic operations, parks, water / wastewater, water quality, survey and geomatics, structural, geotechnical, civil / site, environmental, landscape architecture, planning, MEP, design-build and construction services. Pennoni takes pride in remaining on the forefront of innovative technology and having the ability to respond to the ever-changing needs of clients in the engineering and construction industry.

As a dedicated professional engineering and environmental consulting firm, our team has the technical expertise and personnel capabilities to take on the management demands associated with any Town of Belleair project assignment, as well as an in-depth understanding of the ever-changing and complex regulations that are applicable to your projects.

Pennoni Services Capabilities for Town of Belleair

- **Roadway and Intersection Design**
- **Sidewalk, Trail and Complete Streets Design**
- **Stormwater Analysis, Modeling and Design**
- **Floodplain and Watershed Modeling**
- **Flood and Erosion Control**
- **ADA Assessments – Pedestrians and Bicyclists**
- **Grants and Funding**
- **Utility Relocation, Coordination and Design**
- **Structures / Bridge Analysis and Design**
- **Traffic Engineering, Traffic Studies, Traffic Calming**
- **Permitting (Stormwater and Environmental)**
- **Signal Design and ITS**
- **Low Impact Development (LID)**
- **Survey and Mapping (3D Scanning)**
- **Visualization, 3D Rendering and GIS**
- **Parking Lot Design and Evaluation**
- **Preliminary Engineering and PD&E**
- **Master Planning Services**
- **Value Engineering and Cost / Benefit**
- **Seawall and Marine Structures**
- **Water Quality Modeling and Analysis**
- **Public Involvement**
- **Constructability and Biddability Reviews**
- **Construction and Post Design Services**

- **Our firm has been in business for over 50 years (founded in 1966)**
- **We have over 75 staff in Florida and over 1,150 staff company-wide**

Bayview Drive Improvements

Osceola Road Improvements

Roebling Road Improvements

Projects completed for the Town of Belleair

Similar Services to Florida Municipal Clients

Peter Nikolov and Pennoni have managed and performed civil engineering, transportation and drainage related services for many clients in Florida.

Some of the local municipal clients include:

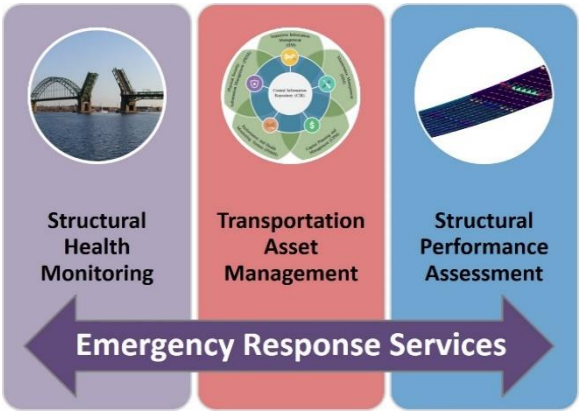
Florida Municipal Clients

- Town of Belleair
- City of Largo
- City of Clearwater
- City of Safety Harbor
- City of Oldsmar
- City of Belleair
- City of Belleair Beach
- City of Pinellas Park
- City of St. Petersburg
- City of Lakeland
- City of South Pasadena
- City of Madeira Beach
- City of Redington Beach
- City of St. Pete Beach
- City of Seminole
- City of Treasure Island
- City of Marco Island
- City of Tarpon Springs
- City of Dunedin
- City of Ft. Myers
- City of Tampa
- City of Haines City
- City of Tallahassee
- Town of Lake Hamilton
- City of Winter Haven
- City of Mulberry
- City of Bowling Green
- City of Eagle Lake
- Town of Dundee
- Pinellas County
- Hillsborough County
- Manatee County
- Sarasota County
- Collier County
- Hernando County
- Pasco County
- Polk County
- Marian County
- Sumter County
- Lee County

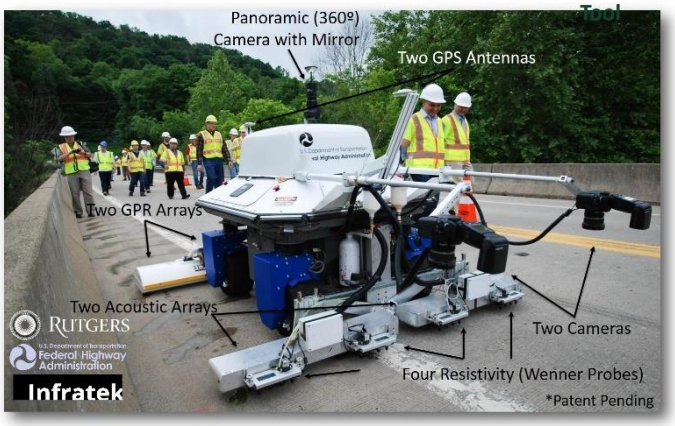
Pennoni provided various engineer of record services to the above clients similar to what will be provided to the Town of Belleair.

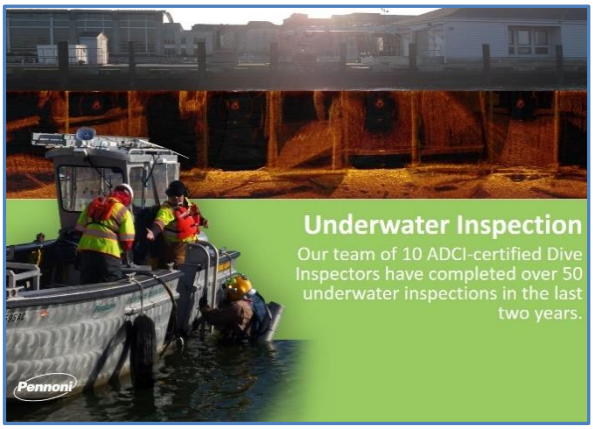
Our list of services and capabilities are listed on the following pages in this section.

Specialty Services



Emerging NDE Technologies
RABIT™ Bridge Deck Assessment Tool





General Civil Engineering Services

Planning

Grants and Funding

Parking Lot Design

Streetscape Design

Feasibility Analysis

Codes and Regulations

Cost Estimating

Value Engineering

Quantity Takeoffs

Constructability Reviews

Biddability Reviews

Specifications

Bidding Services

Limited Construction Services

Post Design Services

Transportation Services

Preliminary Engineering

Field Investigations / Assessments

Route Analysis / Evaluation

Feasibility Analysis / Studies

Minor Roadway Design

Major Roadway Design

Interstate / Interchange Design

RRR Design

Complete Streets Design

Sidewalk and Trail Design

Intersection Design

Multimodal / Shared Used Path Design

Access Management

Signing and Pavement Markings

Traffic Control Plans & Phasing

Railroad Engineering & Design

Local Agency Program (LAP)

Public Involvement

Traffic Engineering

Brick Street Design

Roundabout Design

Traffic Calming Design

Utility Analysis and Design

Traffic Signal Design

Construction Cost Estimating

Traffic Engineering & Operations Services

- Traffic Studies
- Parking Studies
- Road Safety Audits
- Traffic Impact Studies
- Complete Streets Planning
- Multi-modal Planning
- Emergency Response Assessments
- Highway Occupancy Permits
- Traffic Calming Design
- Traffic Signal Design
- Policy Publications & Development
- Policy Training & Delivery
- Walkable Communities
- Work Zone Safety & Mobility Procedures
- Capital Improvement Plans
- Feasibility Studies
- Access Management Studies
- Corridor Studies
- Point of Access Studies
- Toll Revenue Studies
- Transit Access Studies
- Transportation Impact Fee Studies
- Context Sensitive Design
- Signs, Signals & Pavement Markings
- Traffic Management Plans

Stormwater and Drainage Services

Drainage Analysis / Studies

Hydrologic / Hydraulic Modeling

Watershed Analysis and BMPs

Watershed Management Plans

Preliminary & Final Designs

Flood Control

Stormwater Conveyance

Box Culvert Design

Channel Erosion

Swale, Ditch and Channel Design

Inlet System Design

Bridge Hydraulic Analysis

Scour Analysis

Stormwater Permitting

Water Quality Analysis

Water Quality Sampling

Mitigation Design

Floodplain Evaluation

Pond Siting

Cooperative Grant Funding

Bridge & Structural Engineering Services

Bridge Replacement & Rehabilitation

Highway Bridge Design

Historic Bridge Preservation

Pedestrian Bridge Design

Boardwalk Design

Retaining Wall & Seawall Design

Hydrologic & Hydraulic Studies

Load Ratings & Structural Analysis

Structure Evaluation & Risk Assessment

Bridge Repair Design

Abutment Design

Bridge & Box Culvert Design

Multi-Span Design

Feasibility Studies

Alternative Analysis

Structural Analysis

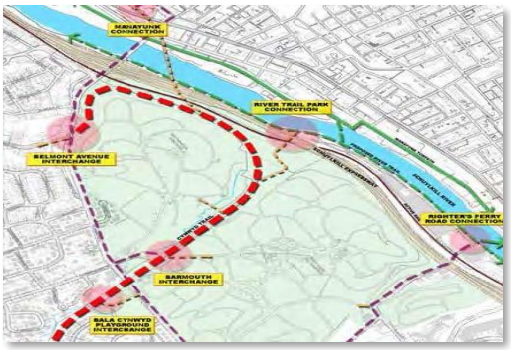
Bridge Maintenance Design

Temporary Structures & Shoring Design

Sign Structure Design & Inspection

Design Build & Value Engineering

Planning Services



Municipal & Comprehensive Planning

Recreation & Open Space Planning

Trails / Greenways Feasibility Studies

Transportation planning

Transit-Oriented Development

Planning Policy Analysis

Zoning Ordinance Writing & Revisions

Revitalization & Economic Development

Project Visioning

Public Consensus Gathering

Prioritizing Implementation Strategies

Estimating Costs

Regulatory Process Assistance

Telecommunications

Environmental planning

Site Planning

Grant Writing

Landscape Architecture Services

Site Feasibility Studies

Site Analysis & Evaluation

Visual Impact Analysis

Master Site Planning

Site Layout, Grading & Detail Design

Campus Planning & Design

Park & Recreation Planning & Design

Athletic Facility Planning & Design

Landscape Master Planning & Design

Streetscape Design

Urban Design

Sustainable Design

Site Amenities Selection

Aesthetics & Functional Design

Grants and Funding Preparation

Color Illustrative & 3-D Graphics

Water / Wastewater Services

Preliminary Engineering

Field Investigations / Assessments

Route Analysis / Evaluation

Feasibility Analysis / Studies

Water Supply & Treatment

Water Distribution Systems

Surface Water Supplies

Groundwater Supplies

Storage Tanks

Booster Stations

Wastewater Collection & Treatment

Inflow & Infiltration Programs

Spray Irrigation

Water Reuse

Industrial Wastewater Treatment

Pumping Stations

Rate Studies & Appraisals

Tapping Fee Determinations

Financing

Value Engineering

Construction Cost Estimating

Construction Services

Survey & Geomatic Services

Boundary & Topographic Surveys

- *Contour Mapping*
- *Digital Terrain Models*
- *Hydrographic*
- *Planimetrics*
- *Route Surveys*
- *ALTA / ACSM Land Title Surveys*
- *Boundary Surveys*
- *Cadastral Surveys*

Construction Stakeout Services

- *Construction Stakeouts*
- *Record Plans*
- *Subdivision Services*
- *Utility Locations*

Control Surveys

- *Geodetic Surveys*
- *Global Positioning Surveys*
- *Photogrammatic Control*

GIS

- *Base Mapping*
- *Land Use Planning*
- *Facilities Management*
- *Orthophoto*

High Def Surveys & Laser Scanning

- *Architectural Elevations & Floor Plans*
- *Engineering Record Plans*
- *Environmental Surveys*
- *Monitoring Well Surveys*
- *Hazardous Site Surveys*
- *Wetland Location Surveys*
- *Park Site Surveys*
- *Treatment Plant Surveys*

Bridge / Structure Inspection Services

NBIS Bridge Inspections

Fracture Critical Member Inspections

Structural Evaluations

Damage Inspections

Routine Inspections

Load Ratings & Structural Analysis

Structural Repair & Remediation

Underwater Inspections

Non-Destructive Material Testing

Sign Structure Inspections

Seismic Evaluations

Scour Evaluations

Repair / Replacement Designs

Plans and Sketches

Database Preparation

Maintenance Plan Development

Construction Services

Underwater Inspection Services

Underwater Structural Inspections

Bridge Scour Investigations

Hydrographic Investigations

Underwater Video & Photography

Marine Construction Inspection

Utility Location & Inspection

Non-Destructive Material Testing

Computer Aided Design & Drafting

Environmental Sampling

Marine Structure Design

Analysis of Existing Structures

Environmental permitting

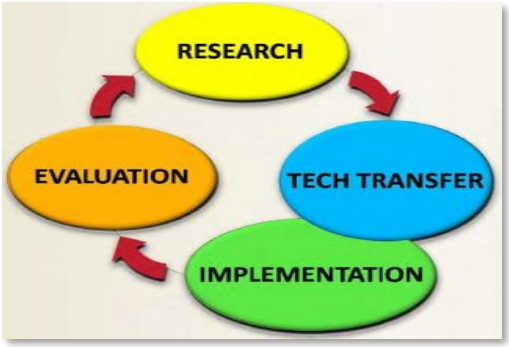
Feasibility Studies

Construction Services

Bridge Scour & Countermeasures

Cost Estimates

Research & Technology Transfer Services



Research & Investigation

- ***Policy***
- ***Regulatory***
- ***Guidelines***
- ***Products***
- ***Techniques***
- ***Traffic Safety***

Training Development

- ***Safety Courses***
- ***Maintenance Courses***
- ***Workshops***
- ***Curriculum Development***
- ***Municipal Government***
- ***State Government***
- ***Consultants and Contractors***

Training Delivery

- ***Workshops***
- ***Roadshows***
- ***Conferences***
- ***Webinars***

Technical Assistance

- ***On-site Assistance***
- ***Telephone Assistance***
- ***Research Assistance***

Environmental Services

Brownfield Redevelopment

Chemical Site Compliance & Permitting

Industrial Site Compliance & Permitting

Ecological & Wetland Services

Threatened and Endangered Species

NEPA Environmental Studies

Environmental Impact Statements

Compliance Audits

Phase I, II Assessments / Remediation

Landfill Investigations

Landfill Closures

Industrial Hygiene

Remediation System Design / Operation

Solid Waste Management

Hazardous Waste Management

Storage Tank Management

Feasibility Assessments

Air Quality Studies

Expert Witness / Litigation

Agency Coordination / Negotiations

Transaction Related Services

Geotechnical Services

Dam Review & Analysis

Dewatering Systems

Forensic Studies

Geophysical Surveys

Geotechnical Instrumentation

Ground Modification

Infiltration Testing

Laboratory Testing of Soils

Liquefaction Analysis

Pavement Design

Preliminary & Feasibility Studies

Retaining Structure Design

Seepage Analysis

Embankment Stability

Sinkhole Evaluation & Stabilization

Sitework & Foundation Design

Subsurface Explorations

Test Borings & Cone Penetration Tests

Pressure Meter Tests & Test Pits

Construction Field Monitoring

Construction Services

Railroad Engineering Services

Track Design

Track Inspections

Highway Grade Crossing Design

Bridge & Underwater Inspections

Railroad Pipe Crossing Design

Specialty Projects

Project Management

Planning Services

Railroad Technical Specifications

Programming & Phasing

Operation & Maintenance

Grant Assistance

Traffic Signal Pre-emption

At-Grade Traffic Signal Timings

Constructability Reviews

Construction Services

SECTION 5

REPRESENTATIVE PROJECTS

Representative Projects

Town of Belleair Experience

Our project Manager Peter Nikolov has been working in the Tampa Bay area for over 30 years and has worked on Town of Belleair projects for over 25 years.

He has worked on many of the roadway, stormwater and utilities related projects for the Town of Belleair including:

- **Ponce De Leon Blvd and Shirley Avenue Intersection Improvements**
- **Orlando Road Storm Assessment and Rehabilitation**
- **Bayview Drive Roadway and Drainage Improvements**
- **Manatee Road Roadway and Drainage Improvements**
- **Osceola Road Roadway and Drainage Improvements**
- **Roebling Road Drainage Improvements**
- **Pine Road and Bayview Drive Intersection Drainage**
- **Garden Circle Roadway and Drainage Improvements**
- **Eagles Nest Drive Roadway and Drainage Improvements**
- **Pine Circle Roadway and Drainage Improvements**
- **Sunset Drive Roadway and Drainage Improvements**
- **Community Center Stormwater Permit**
- **Bayview-Ponce-Oleander Drainage Improvements**
- **Traffic Calming - Woodlawn Avenue**
- **Traffic Calming - Wildwood Way**
- **Traffic Study -Belleview Biltmore**
- **Rosery-Laurel-Ponce Roadway and Drainage Improvements**
- **Town NPDES**

Ponce De Leon Blvd and Shirley Avenue Intersection Improvements

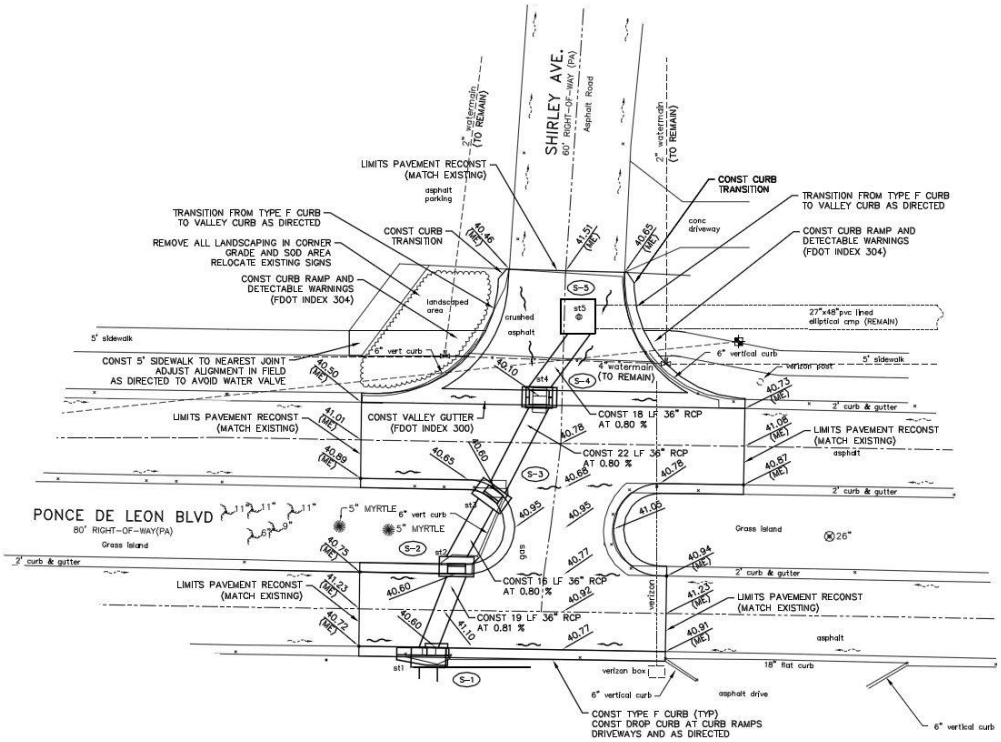
Town of Belleair, Florida (Keith Bodeker, 727-408-4860)

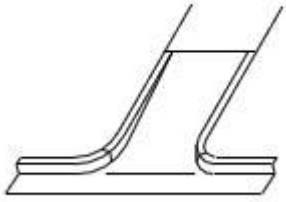
Pennoni is completing the roadway, drainage and intersection improvements for the Town of Belleair.

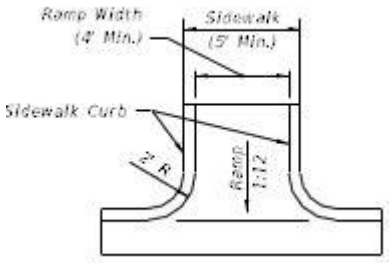
The project also entails drainage improvements due to pipe joint failure, inlet replacements, new Type F curb, new valley gutter and asphalt surface course, base and stabilization replacement. The project also included drainage evaluation, probable construction costs and plans.

There is also a sidewalk on the north side that does not meet ADA requirements. The sidewalk on the NW corner will be realigned at the intersection. New ADA ramps will be designed in accordance to current standards.

Budget Compliance: Project was completed on-budget and cost.
Construction cost: ~$100k (at the estimated cost)
Schedule: Project was completed ahead of schedule.







Storm, Sidewalk and Intersection Improvements

Orlando Road Storm Assessment and Rehabilitation

Town of Belleair, Florida (Keith Bodeker, 727-408-4860)

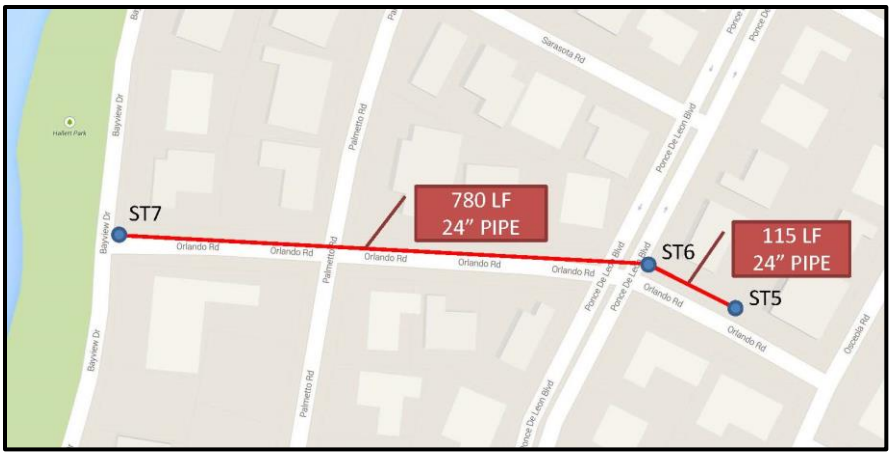
The project involved basin drainage analysis to determine flows and conveyance capacities for a storm system that drained a depressed area discharging through a storm system along Orlando Road that discharged into the intercoastal waterways west of Bayview Drive in the Town of Belleair.

The project also involved analysis and alternative analysis for pipe rehabilitation methods of the existing storm system. The existing storm pipe was a large clay storm pipe that had longitudinal cracks and joint failures causing depressions along the ground surface.

Basin parameterization was completed and runoff was calculated for the 10-year and 25-year storm events including the storage in the depressed area.

Project included the following scope items:

- Field data collection
- Topographic survey
- Basin drainage analysis
- Basin modeling
- Storm tabulations
- Storm pipe condition assessment
- Alternative analysis for pump station and liner options
- Design and plans preparation
- Probable construction cost estimate
- Specifications
- Coordination with stakeholders.



Storm System Rehabilitation

Also assisted in the coordination and tie-ins with the Bayview roadway improvement project currently under construction.

The project had the following goals:

- Determine basin and pipe conveyances.
- Check and verify adequate storm pipe conveyance capacities.
- Determine best storm rehabilitation alternative for pipe failures.

Budget Compliance: Project was completed on-budget and cost.
Construction Cost: ~$110k (under the estimated cost of $113k)
Schedule: Project was completed ahead of schedule.

Manatee Road, Osceola Road and Bayview Drive Storm Drainage Improvements

Town of Belleair, Florida (Keith Bodeker, 727-408-4860)

This project is located in the Town of Belleair, involving many utilities, roadways, intersections and an outfall into the intercoastal.

The project entailed roadway and storm culvert improvements along Manatee Road, Osceola Road and Bayview Drive with a major outfall design into the intercostal waterways. The area has many overhead and underground utilities that were considered during design.

The stretch along Bayview Drive had multiple outfalls discharging to the intercoastal waterways. These outfalls caused significant erosion along the bluff and the Town wanted to reduce and eliminate this erosion. As part of a SWFWMD cooperative grant, the outfalls were eliminated and combined into one major 72-inch outfall to the intercoastal waterways.

A drainage analysis was completed for the basin and contributing drainage areas and a new storm system was designed along Bayview Drive and Manatee Road to convey the runoff. The drainage analysis indicated a series of storm culverts ranging in size from 24 to 72 inches were necessary to convey the runoff. A special manhole baffle system was designed to dissipate the flow energy before discharging into the intercoastal waterways. The outfall pipe and bank was protected a multi-layer rubble rip-rap design.

Roadway, Drainage and Utility Improvements

The project had over 30 storm structures, special baffle boxes, and over 3000 LF of 18, 24, 30, 36, 42, 60 and 72-inch culverts. The 18 to 72-inch pipes were generally3 to 10 feet deep. The project was permitted through SWFWMD and the plans were submitted prior to the 60-percent plans in order to expedite the permit.

There were many utilities including water and sewer within the project limits. Utility coordination was done along with a utility matrix. This information was used in the alignment evaluation before a final storm culvert route selection was made. The purpose was to minimize utility impacts.

A MOT plan and notes were prepared for the project. The MOT included lane closures, lane shifts, intersection traffic control and pedestrian safety requirements.

Budget Compliance: Project was completed on-budget and cost.
Construction cost: ~$1.9M (under the estimated cost of $2M)
Schedule: Project was completed ahead of schedule.

Roebling Road Drainage and Roadway Improvements

Town of Belleair, Florida (Keith Bodeker, 727-408-4860)

Peter Nikolov was the Project Manager and Principal for this drainage and roadway improvement project in the Town of Belleair.

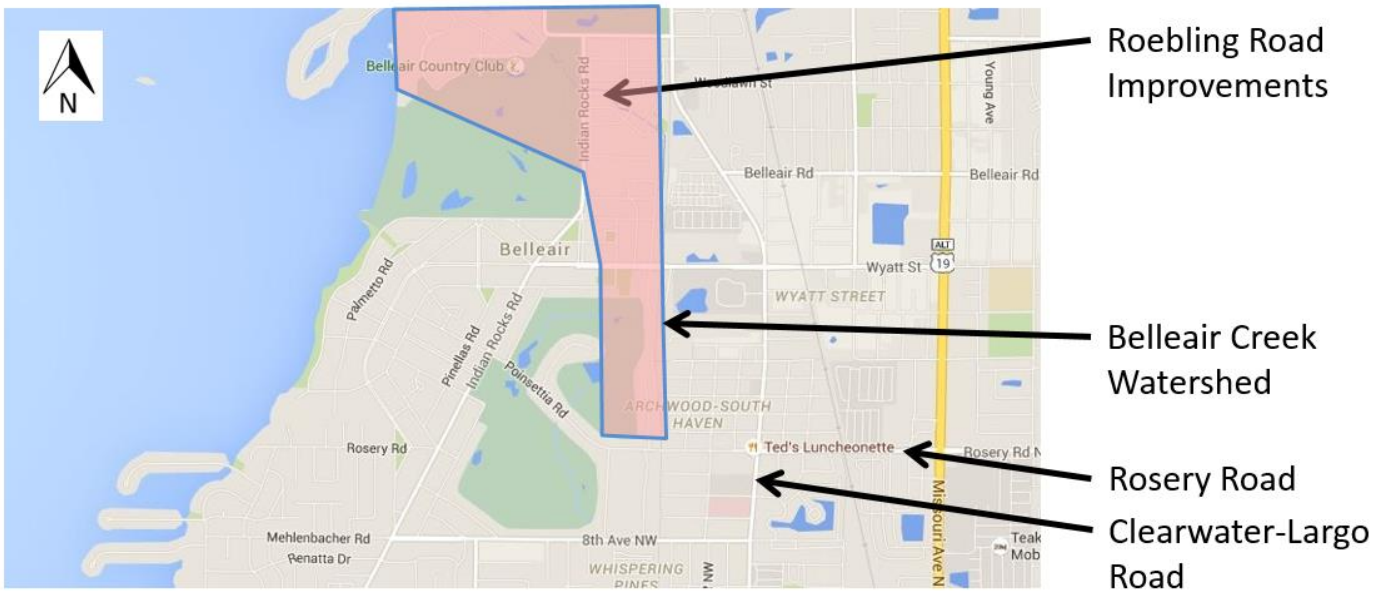
The area upstream of the Roebling Road crossing was experiencing severe flooding. The contributing watershed was the Belleair Creek watershed. Drainage modeling was completed for the Belleair Creek watershed to determine various storm event impacts in the Town.

The project involved:

- Basin, junctions, reaches delineation
- Hydrologic/hydraulic modeling using ICPR
- Water surface profiles generation and analysis
- Analysis and development of BMPs
- Alternative analysis and probable costs
- Public involvement

Some the BMPs included and implemented included:

- Channel widening
- Erosion protection
- Culvert replacements
- High and low flow culverts
- Roadway Restoration

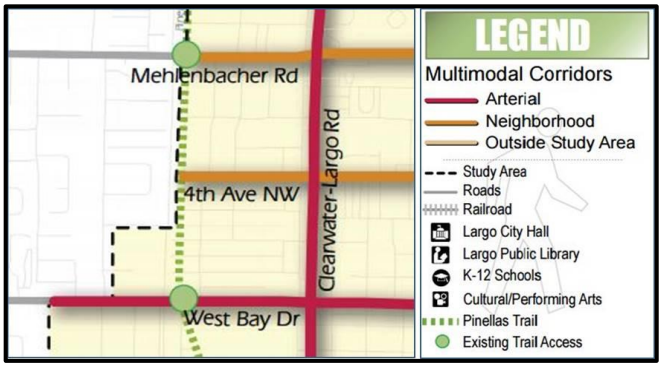


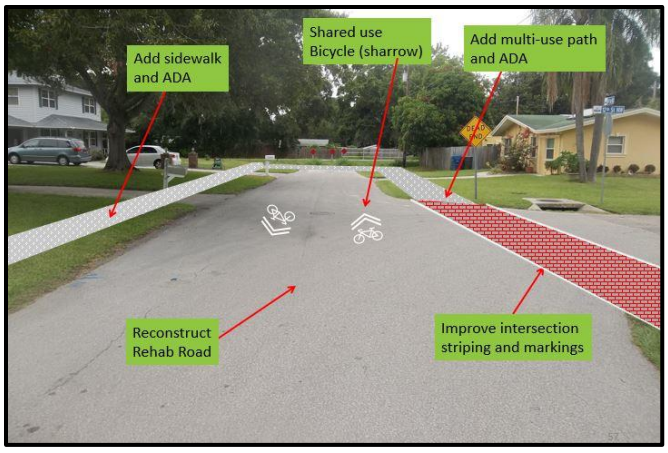
Budget Compliance: Project was completed on-budget and cost.
Construction Cost: ~600k (at the estimated cost)
Schedule: Project was completed ahead of schedule.

Clearwater-Largo Road Roadway, Sidewalk and Drainage Improvements

City of Largo, Florida (Rafal Cieslak, 727-587-6713)

This project involved roadway, sidewalk, multimodal and drainage improvements. The roadway improvements included milling and resurfacing of Clearwater-Largo Road from West Bay Drive to 8th Avenue. This segment of roadway is a 5-lane segment with over 25,000 vehicles per day. The improvements also included cross-slope and curb-line profile corrections to improve drainage flows. The project also included over 3-miles of local street improvements. These improvements included street reconstruction, street reclamation, milling/resurfacing and microsurfacing. A portion of the project is located in a multimodal zone. Therefore, a multi-use path, sidewalks and high emphasize intersection cross-walks were designed to promote pedestrian usage and improve safety.





Roadway, Drainage, and Safety Improvements

The Largo Multimodal Plan is a vision for the future that shifts focus from the automobile to mobility through walking, biking, or taking transit by completing the network of sidewalks and bicycle facilities. For the sidewalks, all existing gaps were closed, an 8-foot and 10-foot multi-use path was designed along 4th Avenue from the Pinellas Trail. Additional sidewalks were designed at various locations to provide additional connectivity and improved safety. The project also added bicycle facilities shared with vehicles on the neighborhood corridors, connection/access to the Pinellas Trail, high visibility stamped asphalt cross-walks to provide the necessary high visibility for increased safety.

Due to the concern of speeding and cut-through traffic, a traffic calming analysis was completed for the neighborhood area. Traffic counts were collected, and the data analysed for speeding and the volume of traffic. Several areas met the threshold for implementing traffic calming measures using speed tables.

The project had the following goals:

- Improve pedestrian access and safety in the multimodal area.
- Construct 8-foot and 10-foot multi-use paths for pedestrians.
- Add sharrow markings to provide continuity of travel for bicyclists.
- Mill and resurface Clearwater-Largo Road
- Rehabilitate the local streets through reconstruction, reclamation, mill/resurfacing and microsurfacing
- Improve the drainage through additional storage and pipe conveyance
- Implement traffic calming for speed and cut-through traffic

Budget Compliance: Project is currently on-budget.

Construction Cost: ~$3.7M (under the estimated cost of $4M)
Schedule: Project is on schedule.

SECTION 6

MANAGEMENT, SCHEDULE AND BUDGET

Management, Schedule and Budget

Pennoni has experience working with smaller communities and understands what is required to complete your projects on schedule and budget.

We have developed an effective project approach that has been successfully used on small to large scale projects.

Our project approach benefits the Town in providing a systematic set of specific steps and work elements to successfully complete your projects within your defined technical scope requirements, schedule and budget.

We will use a 6-step project approach for project design and permitting.

BENEFITS TO THE TOWN:

- **Consistent project approach**
- **Continually planning ahead**
- **Continually monitoring progress**
- **Budget and cost control measures**
- **Schedule monitoring**
- **Alternative analysis for cost savings**
- **Quality control plan adherence**

Our main project approach goals are to develop a project scope that is concise, with the main project objectives discussed with the Town beforehand and expectations set.

We will assign appropriate staffing for the project, develop a work plan and open communications through scheduled progress meetings, phone conferences and emails at frequencies set by the Town.

We understand the importance of progress monitoring, progress reporting and quality control and we give you our commitment to their implementation.

Project Manager Peter Nikolov has worked with the Town for over 25 years. Our team understands the Town's expectations when it comes to the proper design, permitting and citizen interaction.

Our team is committed to meeting your project budgets and schedules.

1

PROJECT UNDERSTANDING & SCOPE

- Identify project goals and objectives
- Visit site and review scope requirements
- Collaboration meeting with Town
- Review scope and provide refinements

2

WORK PLAN & COMMUNICATIONS

- Define team members for project needs
- Define roles and responsibilities
- Define project obligations and deliverables
- Develop open communication protocol

3

PROJECT EXECUTION

- Data collection and survey
- Preliminary engineering
- Alternative analysis / cost saving options
- Stakeholders coordination
- Design, permitting and specifications

4

BUDGET & COST CONTROLS

- Accounting tracking system
- Weekly budget reviews
- Weekly team coordination / meetings
- Constructability reviews

5

SCHEDULE CONTROLS

- Develop upfront schedule
- Track critical path and milestones
- Weekly team status meetings
- Implement recovery plan if off-track

6

QUALITY CONTROL & ASSURANCE

- Prepare a QA/QC plan
- QC every deliverable to Town
- Biddability / Constructability reviews
- Conduct independent QA audits
- Follow-up with Town performance survey

Project Management

Our approach to project management requires that we develop a close working relationship with the Town. We have carefully assigned the responsibility for performance of work and have developed clear lines of communication to successfully complete any project assignments for the Town. The members for each project task will be assigned specific responsibilities and will serve the project from inception to completion. Successful accomplishment of this program is based on the quality of the people and the management structure with which the team functions. Our experience has shown that the most effective way to manage projects of this type is by designating one individual our Project Manager, Peter Nikolov as the primary point-of-contact for the Town.

Approach to Schedule and Budget Management (Control Systems)

The key to successful schedule and budget management is to follow a consistent approach that incorporates the following elements.

- **Assign the required necessary resources for the project assignment**
- **Complete initial field investigations and data collection**
- **Prepare a scope of services to meet the Town's budget**
- **Prepare a project workplan, schedule and budget**
- **Prepare a QA/QC plan for project deliverables**
- **Complete preliminary planning, cost estimating and layouts for your projects**
- **Communicate with the stakeholders and residents**
- **Initiate early analysis and coordination with the permitting agencies**
- **Hold design confirmation meetings with the Town**
- **Hold weekly production team meetings and schedule tracking**
- **Develop probable construction cost estimates to assure project construction budget compliance**
- **Implement a recovery plan if schedule or budget gets off-track**
- **Provide continuous communication with the Town throughout the life of the project**

Meeting Time and Budget Requirements:

An essential part of providing complete, quality technical services to the Town is providing those services in a cost-effective manner, which requires consistent detailed tracking of effort and expenses. Tight internal tracking of personnel time in comparison to a project budget will be continually accomplished with Pennoni's BST timesheet and budget tracking software, which is tied together with all company offices via the internet and cloud storage / access. On a weekly basis after timesheet completion, a series of detailed budget, variance, and other related reports are generated, provided to, and reviewed with management staff on a weekly basis.

We recognize the importance of maintaining project budgets for each project scope task and will do so with our BST budget and project management system. We will establish task costs, supplemented by a total project man-hour estimates, with task hours assigned to each staff category as specified in our rate schedule. We will also provide a breakdown for the Town's work items. Our Project Manager will be responsible for maintaining the budget for each task and will make sure that the project is tracked and billed in accordance with the actual physical percentage complete. Any applicable client status update reports will provide a concise summary of the project's expenditures to date, including any reimbursable direct expenses, to ensure the project stays on track with regard to budget and schedule.

Our approach for this project will be to meet with Town staff to establish a clear understanding of the schedule, expectations, and milestones. Town's requirements, policies and preferences will be communicated to all the team members as detailed in our project management / approach section. Our Project Manager, Peter Nikolov will be responsible for communication with the Town and will be available on-call by mobile phone.

The key factors that enhance our ability to successfully provide professional engineering and related services in the required time and within budget are:

- Experienced Project Manager, Peter Nikolov that has completed numerous similar type projects
- Capabilities and prior experience in the work to be performed (small to large projects)
- Allocation of sufficient technical resources; understanding of roles and responsibilities
- Key staff organized around functional task units and capable of handling a wide range of planning, permitting and engineering tasks
- Our similar project experience, knowledge to resolve your engineering requirements and registered professionals who are licensed / accredited within their disciplines
- Closely monitored costs and schedule requirements throughout the life of each project

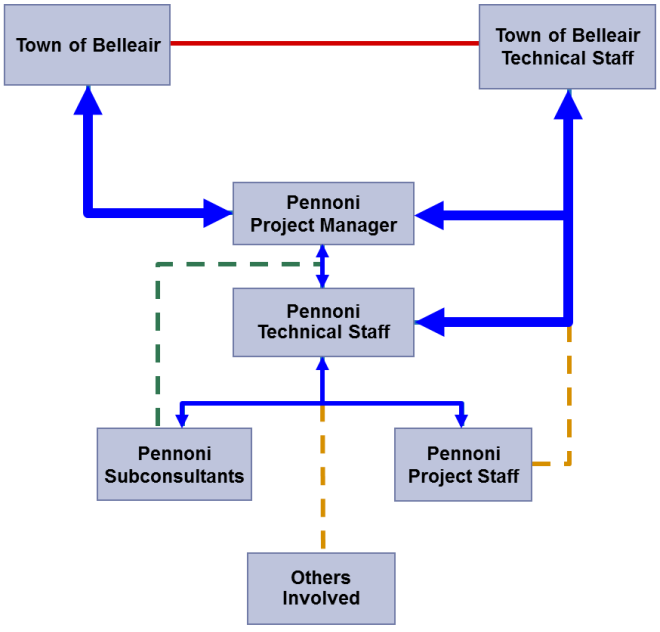
Our approach to project execution has been successfully used on many similar type projects. We have a proven record on completing projects on schedule and within budget.

Continuous Effective Communications

The primary key to a successful project is to have continuous communication throughout the life of the project. We believe that outstanding communications is necessary to achieve a quality and successful project.

Our Project Manager, Peter Nikolov will be your direct link and will be responsible for making sure proper communications occurs and issues are resolved quickly. He has successfully worked on many other Town projects.

We will have early coordination with the Town and on-going weekly design and status meetings with the Town and staff to make sure the project is on schedule and budget.



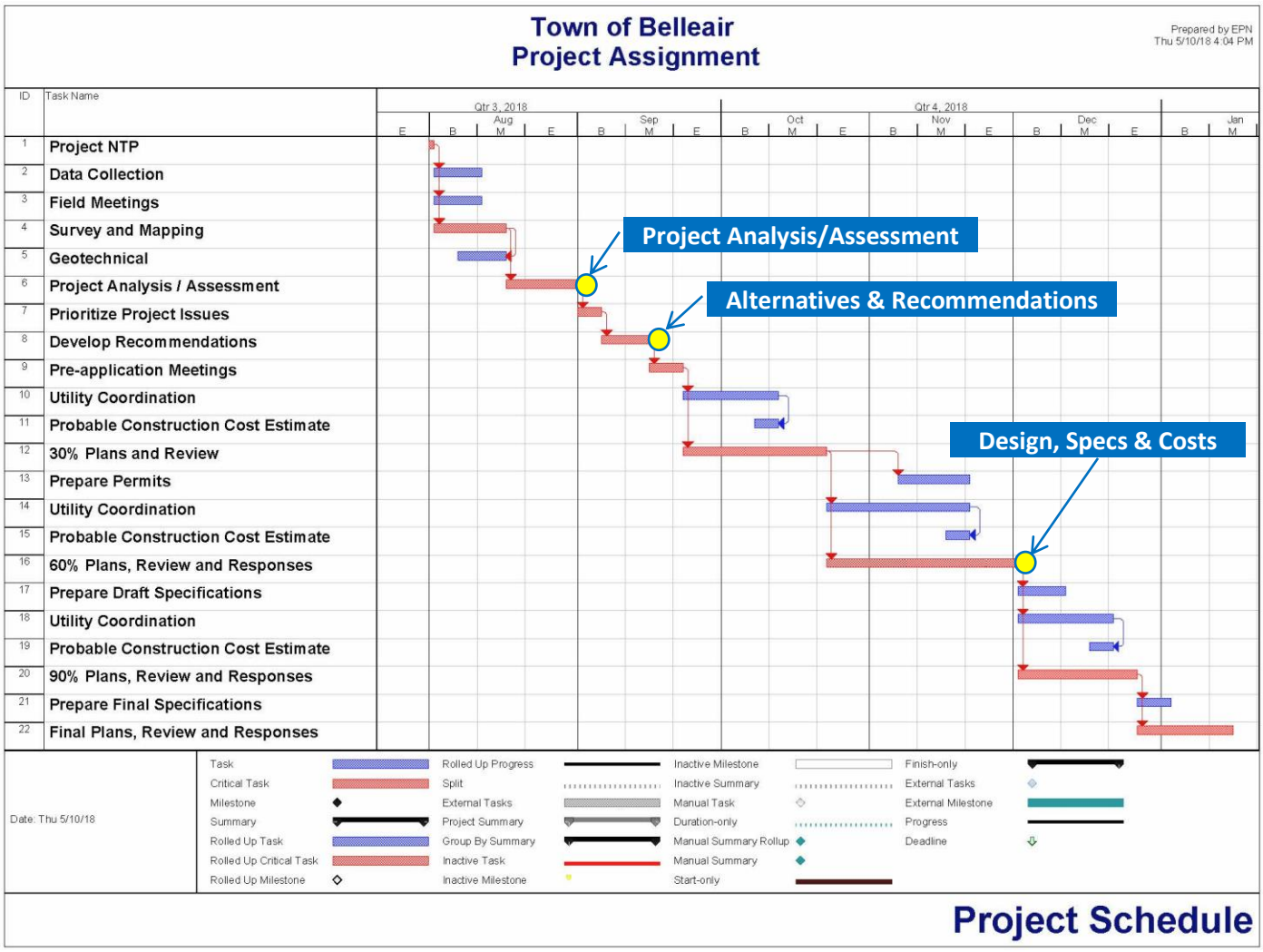
PROCESS:

- **Early coordination**
- **Weekly status meetings**
- **Design / Field meetings**
- **Collaboration website**
- **Grading of sub's performance**
- **Email / Phone / FTP**

Outstanding communication is necessary to achieve a quality project

Schedule and Tasks

We will work with the Town to prepare a project schedule. Schedules will outline all critical path items and their durations. The task managers will monitor and update the schedule on a weekly basis. If necessary, we will adjust the assigned staff as required to meet established submission and completion dates. Schedule updates for each active task order will be included with Pennoni's status reports. Here is an example project schedule.



Budget

An essential part of providing complete, quality design services to the Town is providing those services in a cost-effective manner. We will prepare a project man-hour estimate, with task hours assigned to each staff category. Each task manager will be responsible for maintaining the budget for each project using BST enterprise management system software to monitor costs on a daily and weekly basis.

All labor charges by individual and other direct costs (expenses, subconsultants, etc.) are entered into the BST system which allows for the project specific data to be extracted, reviewed and compared to the overall budget. The Project Manager will identify any deviation from the budget and will use the system for necessary corrective actions, if required.

Work Plan for Project Assignments

Our team will prepare a project work plan for your project assignments.

The plan provides a detailed plan of every aspect of the project and includes items such as:

- Project name and number
- Town project number and information
- Type of project
- Project description including project purpose, issues and constraints
- Project team staffing
- Project subconsultants
- Scope of services discussion
- Project schedule and milestones
- Progress report requirements
- Permitting requirements
- Signing and sealing requirements
- Plans requirements

PROJECT WORK PLAN
MEETING DATE / TIME

Project Name	Ponce De Leon Boulevard Improvements
Project Number	Belleair-1801
Client Name	Town of Belleair
Client's Project No.	
Type of Project [Check applicable]	☒ Design and Permitting ☐ Study / Report ☐ Construction Services ☐ Other:
Project Description: [Include purpose, issues and constraints] Purpose: Design and Permitting Issues: Roadway, Drainage and Utilities Constraints: Existing Pavement Conditions, Groundwater, Existing Drainage, Outfall Conveyance	

Project Team:	**Team Members**	**Assignments**
[List Team Members]	Peter Nikolov, PE	Project Manager
	Ron Leder, PE	Design and Plans Preparation
	Mike Henderson, PE	Design and Plans Preparation
	Mike McCarthy, PE	Structural Analysis and Design
	Kriss Kaye, PE	Drainage Analysis and Design
	Steve Shealey, PE	Constructability and Value Engineering
	Roger Homann, PE	Utilities Design
	Kelly Cranford, PE	Permitting
	Jill Riebel	Technical Assistance
Subconsultants:	☐ Survey	Select as needed for project
[List Sub Names]	☒ Environmental	Select as needed for project
	☒ Geotechnical	Select as needed for project
	☐ Other:	
	☐ None	

Scope of Services	Bring copy and discuss at Kick-off Meeting.
Schedule	Bring copy and discuss at Kick-off Meeting.
Deliverables	Bring copy and discuss at Kick-off Meeting.
Progress Reports	Use Pennoni Report unless client has a required format.

PENNONI WORKPLAN (PARTIAL PLAN SHOWN)

Project Issues and Resolutions

Our Team is very familiar with potential and typical project issues and their resolutions. Here is our approach:

Typical Issue	Approach for Resolution
• Incomplete project understanding	Define goals and objectives with the Town, visit site and refine scope.
• Construction budgets	Prepare probable construction cost estimates at each phase and let the Town know of any major deviations from the CIP allotted funds.
• Project schedules	Prepare an upfront schedule and track carefully. Communicate with the Town.
• Upset citizens	Work with the Town to develop a public outreach program to communicate the design and construction schedules as well as impacts to the neighborhood.
• Design and permitting issues	For Town projects, groundwater, drainage and utilities need to be carefully reviewed and incorporated into the project design. Resolve permitting requirements early so there are no surprises later in the design.

Commitment to Perform

Pennoni values our long-term relationship with the Town of Belleair and will do whatever it takes to complete the Town's projects on time and within the negotiated budget.

The key team members identified in this proposal are currently available to start work as soon as we are authorized to do so by the Town.

With a staff more than 75 local, technical, and administrative personnel to draw from, the project team has the in-house resources to complete your project assignments in a cost efficient and timely manner.

Our current workload will permit us to begin work as-needed by the Town and meet any reasonable set project schedule. We have successfully completed many similar types of projects and have demonstrated the ability to provide the required services on time and within established budgets.

As taxpayers and consultants who frequently provide engineering services to local government entities, we recognize the limitations of your funds and understand the difficulties involved with budget overruns. We described in our proposal that our approach to successfully completing your project assignments includes a rigorous budget/schedule management process that assures that we keep your project on track and allows us to complete the agreed to scope of services within the approved budget and schedule.

Given the size of our team and combined resources, the Pennoni team is prepared to meet the challenges of your projects. As demonstrated in earlier sections of this proposal, the key factors that enhance our ability to successfully accomplish task assignments within schedule and budget are:

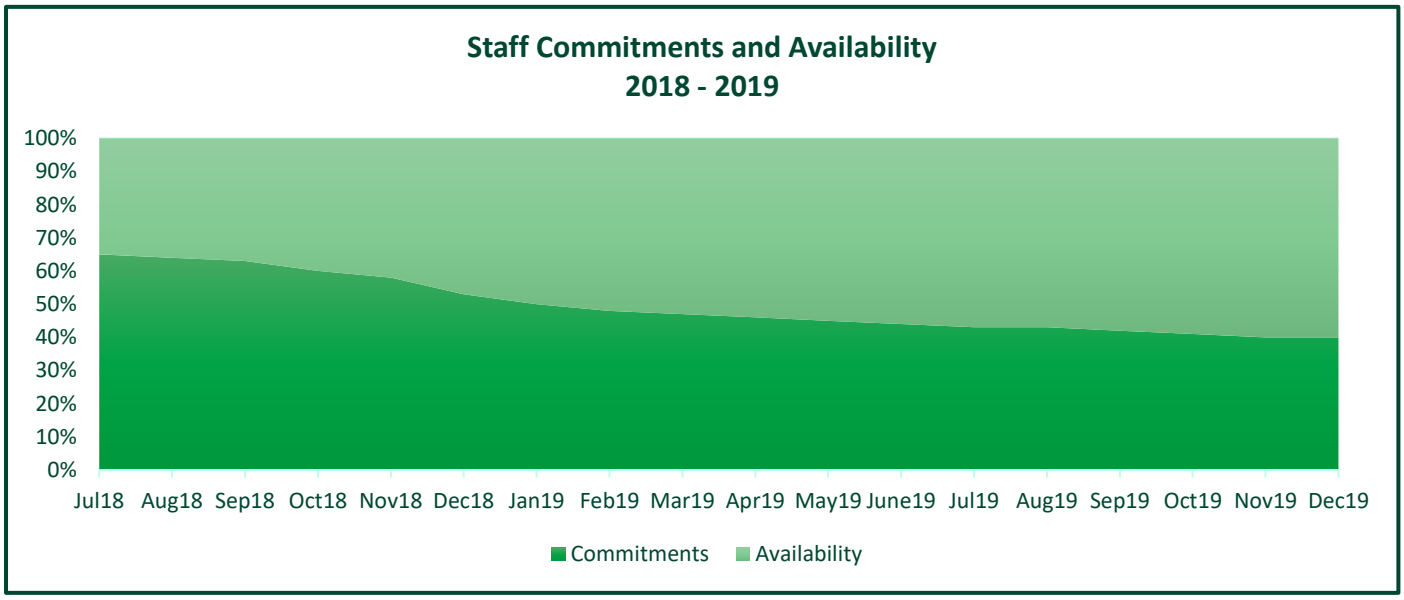
- Capabilities and prior experience in the work to be performed (small to large projects)
- Allocation of sufficient technical resources
- Understanding of roles and responsibilities
- Key staff organized around functional task units capable of handling a wide range of engineering tasks
- Experience with similar projects and the required knowledge to resolve the engineering requirements
- Registered professionals, who are licensed and accredited within their disciplines
- Closely monitored costs and schedule requirements throughout the life of each project

In all of these factors, our project team offers demonstrable evidence of possessing these qualities and a record of consistently accomplishing work in the required time and within budget.

Key Staff Current and Projected Workload

Our current workload will permit us to begin work as-needed by the Town for your project assignments. We have successfully completed similar types of projects and have demonstrated the ability to provide the required services on time and within established budgets.

Pennoni has substantial capacity to take on additional work in 2018 and 2019; therefore, we can meet the Town's required project deadlines. The chart below shows the current projected workload for 2018 - 2019.



At the current time, our engineering staff, including the key team members identified in this proposal, is approximately 67% billable leaving considerable staff time available for the Town's projects.

By July, we anticipate our overall utilization rate will be around 65% for our local staff, leaving approximately 700 hours per week (2,800 hours per month) available. That is more than enough available time to complete the necessary project tasks in a timely manner.

In addition to our local staff, we have over 1,150 staff company-wide in the event additional resources or expertise is required by the Town. Our ability to call on the experience and specialized expertise of our colleagues when needed will provide the Town with the local experience and personalized approach, together with the additional staff capacity when the Town requires it.

Summary: Pennoni has substantial local and company-wide staff capacity / depth to provide all needed services required by the Town of Belleair. We have the capacity and availability to begin work as-needed for your projects. You have our commitment for staff resources and meeting your budget and schedule requirements.

Quality Assurance/Quality Control (QA/QC)

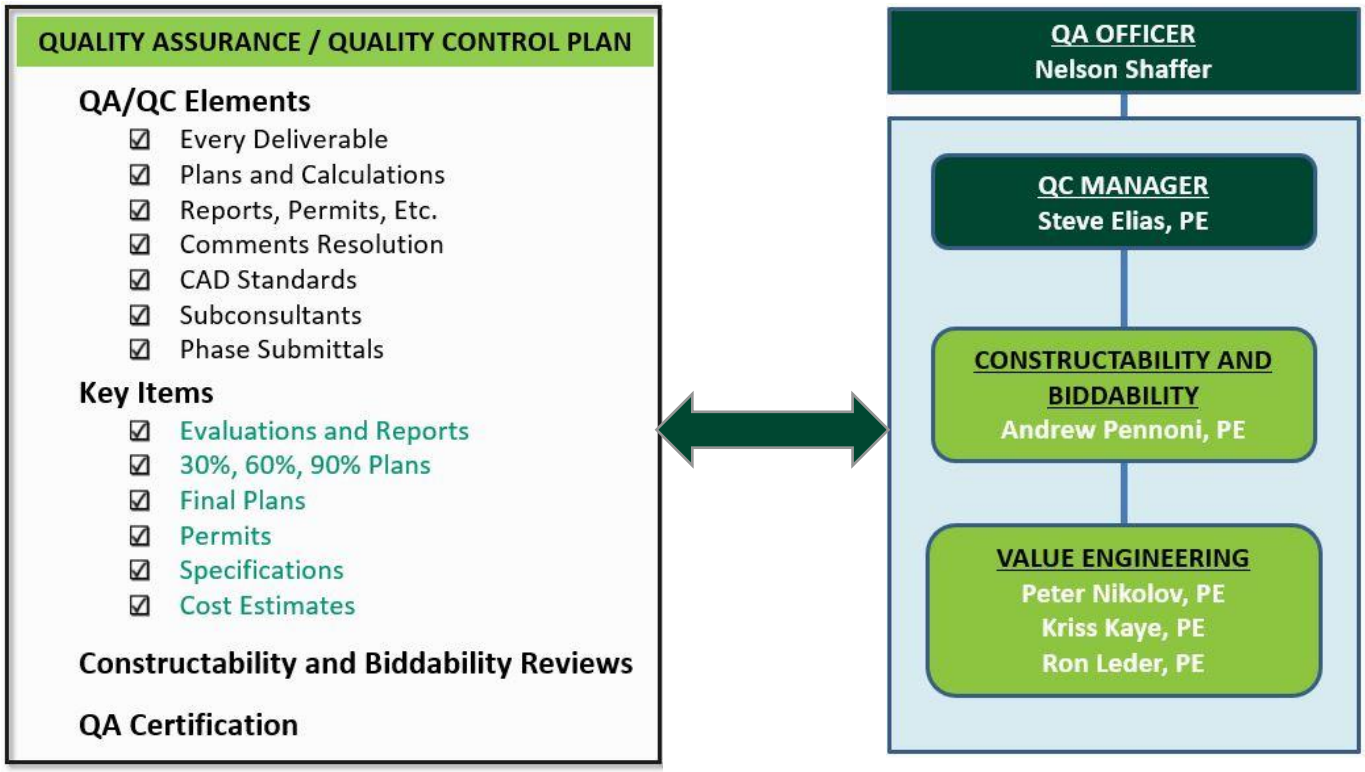
Pennoni fosters an environment where quality is a way of life each and every day. Our Quality Assurance and Quality Control Plan is clearly defined by firm policy, effective procedures, and up-to-date standards of practice. This plan will help our team achieve the objective of providing design services on time and within budget. Our experience has shown us that proper and consistent maintenance of design schedules is the most efficient method to keep projects on target, as well as minimizing "scope creep," which can expand both design budgets and schedules. To aid in the overall management of the contract, our team will maintain project schedules using the latest software and will provide frequent updates to the client. We will create a project schedule based on practical task durations and review times. These schedules will list major deliverables, quality control milestones, and anticipated submission dates.

The QA/QC plan provides for a detailed approach for each task, including developing a method to communicate specific project issues to interested parties, maintaining compliance with design criteria throughout the project, regularly updating cost estimates, and monitoring project approvals, budgets, and schedules.

PENNONI QUALITY CONTROL TRACKING STAMP		
PHASE I II III IV FINAL PHASE 30 60 90 100 FINAL	INITIAL	DATE
INITIATE QC (REP)		
QC REVIEW (QCR) YELLOW = OK, RED = CORRECTION		
CONCURRENCE (REP) BLUE CHECK = OK, BLUE X-OUT = NO CHANGE		
CHANGES MADE ORANGE OVER RED		
VERIFIED (QCR) GREEN CHECK = OK, GREEN CIRCLE = FIX		

RESPONSIBLE ENGINEER OR PROFESSIONAL = (REP), QC REVIEWER = (QCR)

Work is reviewed on a regular basis so that project budgets and schedule goals are met. Reviews are done by the Project Manager with staff members required to crosscheck their own work prior to management review. Close supervision by an experienced professional and strict adherence to well-established quality assurance procedures are primary requirements of all our projects. Pennoni believes that successful projects result from a collaborative effort, working as a team throughout the process. **Other key elements of our QA/QC plan include: Independent Senior Staff Review, Technical Competence, Scheduling, Feedback, Communications, Project Planning, Administrative Procedures and Final Quality Review.**



SECTION 7

CLIENT REFERENCES

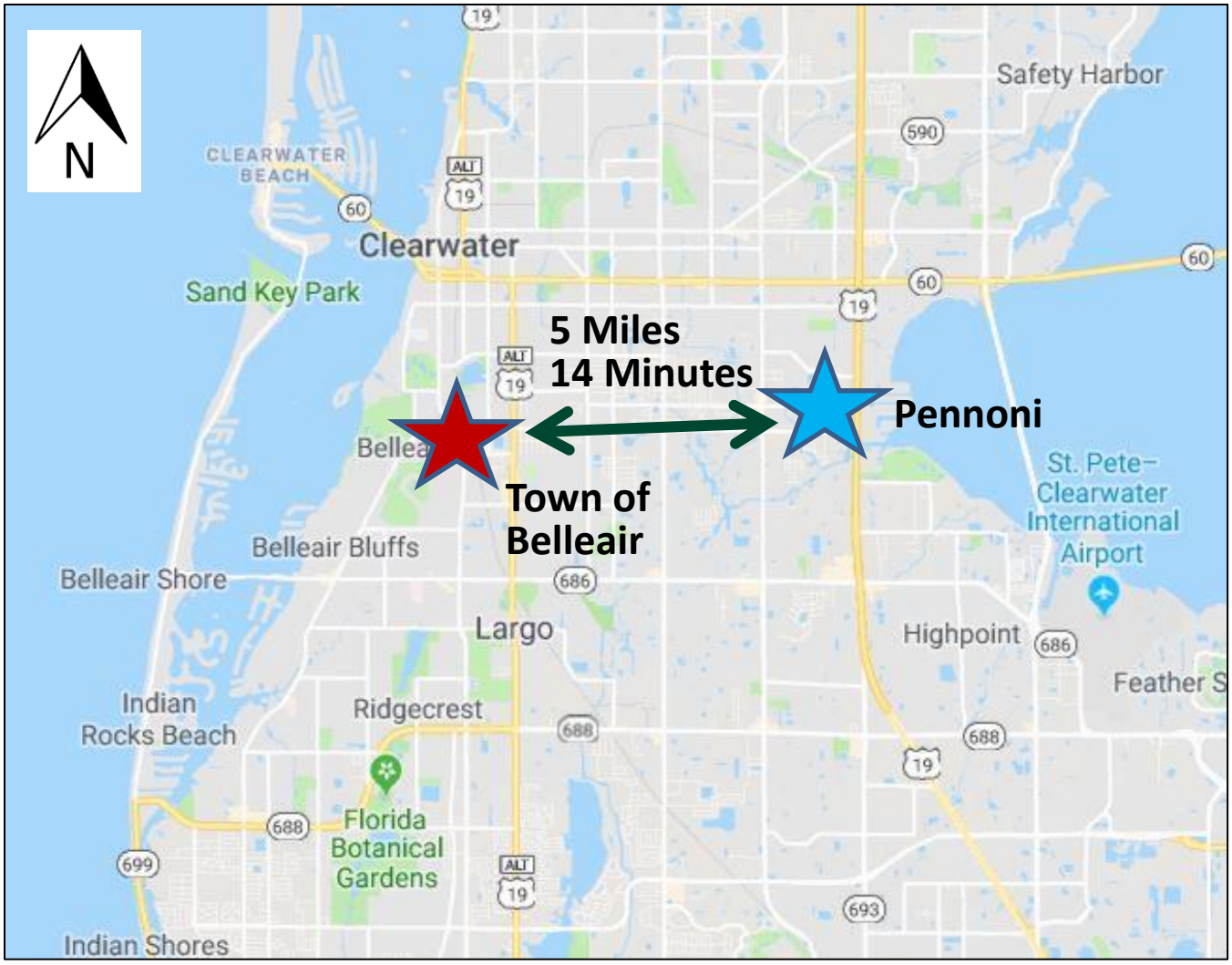
Client References

Name/Address	Phone	Email
Jorge Quintas **City of Dunedin** **737 Louden Avenue** **Dunedin, FL 34698**	727-298-3175	jquintas@dunedinfl.net
Bruce Wirth **City of Dunedin** **737 Louden Avenue** **Dunedin, FL 34698**	727-298-3000	bwirth@dunedinfl.net
Nancy McKibben **Pinellas County** **14 S. Ft. Harrison Ave., 6th Floor** **Clearwater, FL 33756**	727-464-4812	nmckibben@pinellascounty.org
Bart Diebold **City of Pinellas Park** **6051 78th Avenue** **Pinellas Park, FL 33781-2242**	727-369-5670	BDiebold@pinellas-park.com
David Abbaspour **City of St. Petersburg** **One 4th St N** **St. Petersburg, FL 33701**	727-892-5382	David.Abbaspour@stpete.org
Ivan Fernandez **Pinellas County** **14 S. Ft. Harrison Ave., 6th Floor** **Clearwater, FL 33756**	727-464-3654	ifernand@pinellascounty.org
Michelle Giuliani **City of Safety Harbor** **750 Main Street** **Safety Harbor, FL 34695**	727-724-1555	mgiuliani@cityofsafetyharbor.com
Keith Bodeker **Town of Belleair** **901 Ponce de Leon Blvd.** **Belleair, FL 33756**	727-408-4860	kbodeker@townofbelleair.net
Ralph Cieslak **City of Largo** **201 Highland Avenue** **Largo, FL 33779-0296**	727-587-6713 ext. 4421	rcieslak@largo.com
Carol Stricklin **City of Largo** **201 Highland Avenue** **Largo, FL 33779-0296**	727-586-7490	cstrickl@largo.com
John Ranon **City of Tampa** **306 E. Jackson Street** **Tampa, FL 33602**	813-231-5255	john.Ranon@tampagov.net
Greg James **City of Lakeland** **228 S. Massachusetts Ave** **Lakeland. FL 33801-5086**	863-834-6040	greg.james@lakelandgov.net

SECTION 8

OFFICE LOCATION

Pennoni Florida Office



Pennoni Associates is located at
2555 Nursery Road in Clearwater
(5 miles and 14 minutes from the Town)

SECTION 9

ADDENDA, INSURANCE, REGISTRATION AND LICENSES

ADDENDUM 1

FOR REQUEST FOR QUALIFICATIONS

ADM18-1: ENGINEER OF RECORD

The ADM18-1 ADDENDUM 1 is issued by the Town of Belleair through the Town's Website. The ADDENDUM SHALL BE MADE A PART OF THE BID DOCUMENTS AND SPECIFICATIONS.

ADDENDUM 1

ADDENDUM COVERING CHANGE IN SPECIFICATIONS AND/OR SCOPE OF SERVICES

Date Issued: May 23, 2018

Addendum No.: 1

RFQ Number: ADM18-1: ENGINEER OF RECORD

Procurement Officer: Keith Bodeker

INTENT

1. Issuance of this addendum is intended to modify Request for Qualifications (RFQ) No. ADM18-1.

2. Questions and Answers are enclosed.

Addendum 1: Request for Qualifications ADM 18-1 Questions and Answers

Q1: Our understanding of requirement #11 is that you would like proposers to provide a final product of a past project as an example of our quality/type of work. Is this correct? If yes, in which format would you like the final product – as a hard copy or electronic (jump drive or CD)?

A1: As described on page 4 the consultant is to provide five hard copies and one electronic format. The example of the project would be included in the submittal. The format and manner in which "the project that typifies the product of your firm" is presented is at the discretion of the applicant.

Q2: Is the Town's intent to select one or multiple firms?

A2: The Engineer(s) of Record may vary between disciplines depending on the outcome of the selection process.

Q3: If multiple, how many per type of work?

A3: Undetermined.

Q4: What are the points associated with the evaluation criteria (sections VII, page 10 of 16)?

A4: The scoring used at all stages in the process will be based on the same criteria listed in section VII. There will be a maximum of 100 points to be allocated from the following maximum scores for each criterion:

A: 5 points

B: 15 points

C: 15 points

D: 25 points

E: 10 points

F: 5 points

G: 15 points

H. 5 points

I. 5 points

Q5: Is there any page limitation for the response?

A5: There is no page limitation.

Q6: How many consultants is the Town of Belleair planning to select for this RFQ?

A6: Unknown at this time

Q7: Is it the Town's desire for all submittals to cover all the disciplines listed in the RFQ?

A7: It is not required.

Q8: Who is/are the incumbent firm(s) on this multi-year service agreement?

A8: Bayside Engineering, Cardno Engineering, CPH, Deuel & Associates, DKS Associates, DRMP Inc., HSW Engineering, Mckim & Creed, PSI Engineering, RS & H, VHB, Wade Trim.

Insurance, Registration and Licenses

Pennoni

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 5/18/2018

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

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

PRODUCER	CONTACT NAME: Lisa Huttman	
Arthur J. Gallagher Risk Management Services, Inc. 40 W. Front St. Media PA 19063	PHONE (A/C, No, Ext): 610-548-5108	FAX (A/C, No): 610-566-0147
	E-MAIL ADDRESS: Lisa_Huttman@ajg.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Zurich American Insurance Company	16535
INSURED	INSURER B : New Hampshire Insurance Company	23841
Pennoni Associates Inc. 1900 Market Street, Suite 300 Philadelphia, PA 19103	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** 2070211455 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT X LOC OTHER:	Y		GLO9264405-08	5/1/2018	5/1/2019	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$1,000,000 $300,000 $15,000 $1,000,000 $2,000,000 $2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY / SCHEDULED AUTOS X HIRED AUTOS ONLY / X NON-OWNED AUTOS ONLY	Y		BAP9264406-08	5/1/2018	5/1/2019	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$1,000,000 $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 0	Y		AC[illegible]8-04	5/1/2018	5/1/2019	EACH OCCURRENCE AGGREGATE	$1,000,000 $1,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N / N/A If yes, describe under DESCRIPTION OF OPERATIONS below			WC6249892[illegible]	5/1/2018	5/1/2019	X PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $1,000,000 $1,000,000 $1,000,000
A	Professional Liability Environmental/CPL			EOC534632613	5/1/2018	5/1/2019	Each Claim Aggregate	1,000,000 1,000,000

SPECIMEN

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

RE: Professional Engineering Services for the Town of Belleair, Florida
Town of Belleair, a municipal corporation of the state of Florida and all associated, affiliated and subsidiary entities of Town, now existing or hereafter created, and their respective officers, boards, commissions, councils, employees, agents and consultants are additional insured under GL Endorsement U-GL-1175-F CW (04/13) and on the Automobile Liability and Umbrella policies above, on a primary/noncontributory basis, per the policy terms and condition, with respect to the insured's operations. 30 days notice of cancellation will be provided to the insured. The policy has no cross suits exclusion; it includes a standard Severability of Interests clause.

CERTIFICATE HOLDER	CANCELLATION
Town of Belleair 901 Ponce de Leon Blvd. Belleair FL 33756	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Deidre L. Frederick

ACORD 25 (2016/03) The ACORD name and logo are registered marks of ACORD

State of Florida
Department of State

I certify from the records of this office that PENNONI ASSOCIATES INC. is a Pennsylvania corporation authorized to transact business in the State of Florida, qualified on July 23, 1997.

The document number of this corporation is F97000003836.

I further certify that said corporation has paid all fees due this office through December 31, 2018, that its most recent annual report/uniform business report was filed on January 4, 2018, and that its status is active.

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

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Fourth day of January, 2018

Ken Detzner

Secretary of State

Tracking Number: CC6893222082

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

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

Department of State / Division of Corporations / Search Records / Detail By Document Number /

Detail by Entity Name

Foreign Profit Corporation
PENNONI ASSOCIATES INC.

Filing Information

Document Number	F97000003836
FEI/EIN Number	23-1683429
Date Filed	07/23/1997
State	PA
Status	ACTIVE
Last Event	CANCEL ADM DISS/REV
Event Date Filed	10/27/2006
Event Effective Date	NONE

Principal Address

1900 MARKET STREET
SUITE 300
PHILADELPHIA, PA 19103

Changed: 10/03/2017

Mailing Address

1900 MARKET STREET
SUITE 300
PHILADELPHIA, PA 19103

Changed: 10/03/2017

Registered Agent Name & Address

BATCHLETT, NANCY
C/O 1698 INDIGO AVENUE
THE VILLAGES, FL 32162

State of Florida

Board of Professional Engineers

Attests that

Pennoni Associates, Inc.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201905004 R

CA Lic. No:
7819

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LB8126**
Expiration Date February 28, 2019

Professional Surveyor and Mapper Business License

Under the provisions of Chapter 472, Florida Statutes

PENNONI ASSOCIATES, INC.
3001 MARKET ST STE 200
PHILADELPHIA, PA 19104-2847

ADAM H. PUTNAM
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

State of Florida

Board of Professional Engineers

Attests that

Elian Peter Nikolov , P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201915990 R

P.E. Lic. No:
38766

State of Florida

Board of Professional Engineers

Attests that

Ronald James Leder Jr., P.E.

FBPE

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

Expiration: 2/28/2019
Audit No: 228201925621 R

P.E. Lic. No:
68160

DISPLAY THIS CERTIFICATE PROMINENTLY • NOTIFY AGENCY WITHIN 10 DAYS OF ANY CHANGE

Commonwealth of Pennsylvania
Department of State
Bureau of Professional and Occupational Affairs
PO BOX 2649 Harrisburg PA 17105-2649

18 0141413

License Type
Professional Engineer

MICHAEL CAMERON HENDERSON
3612 BERKSHIRE STREET
New Port Richey FL 34652

License Status
Active

Initial License Date
02/08/2008

Expiration Date
09/30/2019

License Number
PE075338

Commissioner of Professional and Occupational Affairs

Signature

ALTERATION OF THIS DOCUMENT IS A CRIMINAL OFFENSE UNDER 18 PA.C.S.S. 4911

State of Florida

Board of Professional Engineers

Attests that

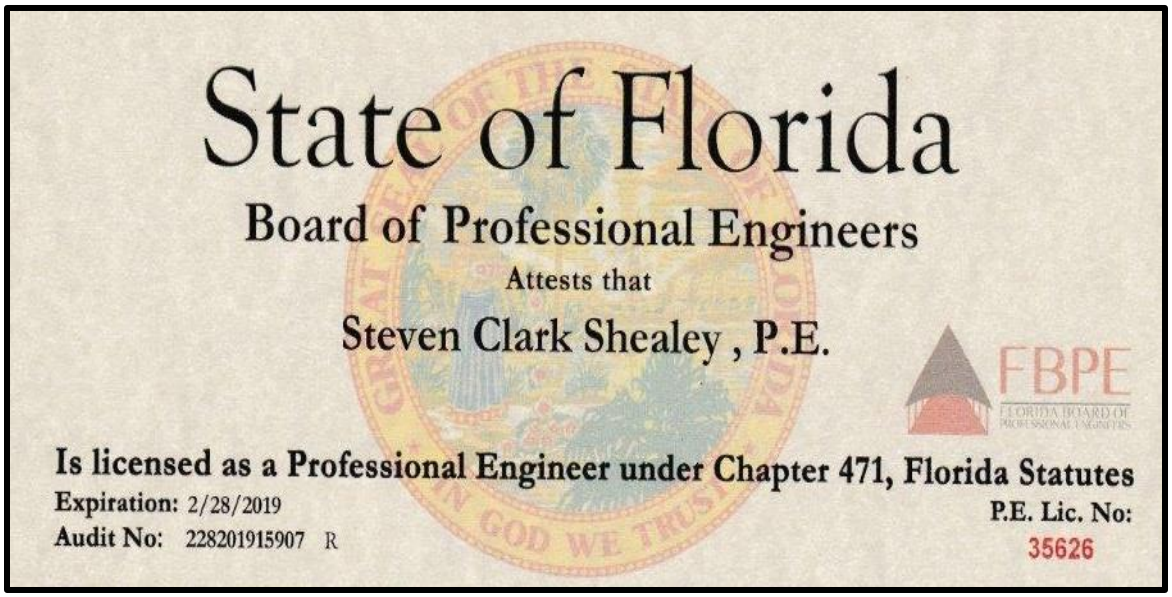
Kriss Y. Kaye , P.E.

FBPE

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

Expiration: 2/28/2019
Audit No: 228201916504 R

P.E. Lic. No:
50607



State of Florida

Board of Professional Engineers

Attests that

Steven Clark Shealey , P.E.

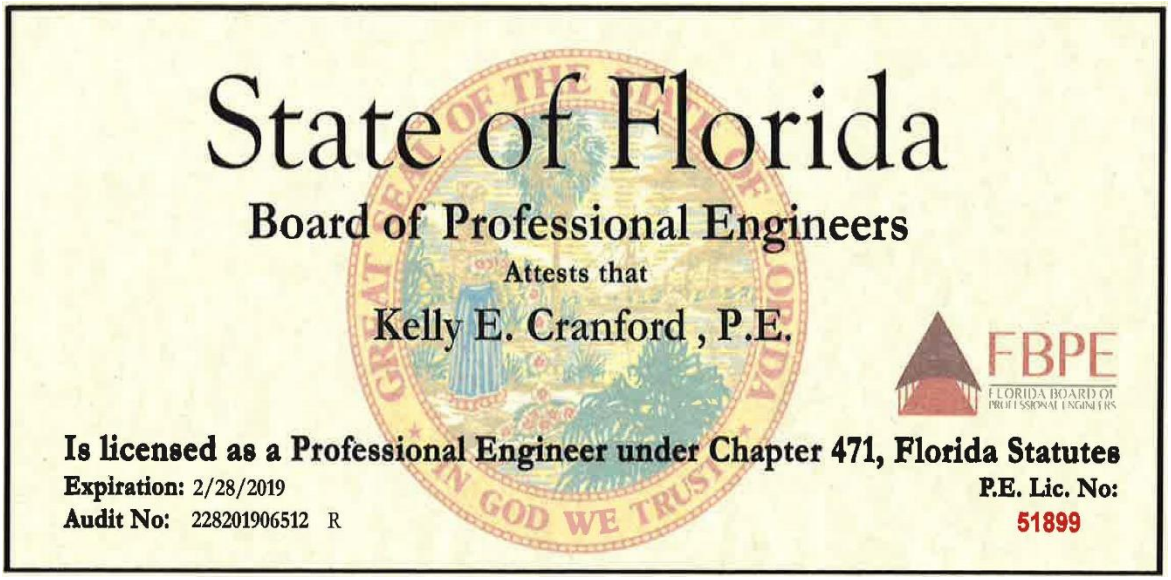
FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019

Audit No: 228201915907 R

P.E. Lic. No: 35626



State of Florida

Board of Professional Engineers

Attests that

Kelly E. Cranford , P.E.

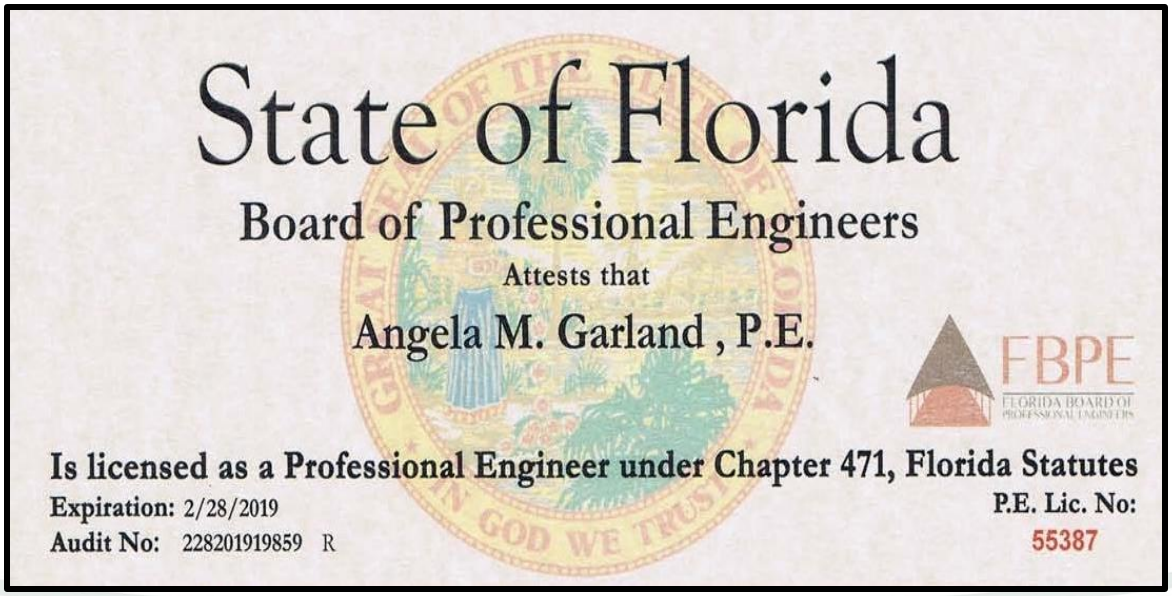
FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019

Audit No: 228201906512 R

P.E. Lic. No: 51899



State of Florida

Board of Professional Engineers

Attests that

Angela M. Garland , P.E.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019

Audit No: 228201919859 R

P.E. Lic. No: 55387

State of Florida

Board of Professional Engineers

Attests that

Anthony Joseph Castellone , P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201922758 R

P.E. Lic. No:
42506

LICENSE NO. S6-0000731

STATE OF DELAWARE
DIVISION OF PROFESSIONAL REGULATION
861 Silver Lake Blvd.
Cannon Building, Suite 203
Dover, DE 19904-2467

NOT TRANSFERABLE

PROFESSION: Professional Land Surveyor

EXPIRATION DATE: 06/30/2019

ISSUED TO: Carl Wayne Sweikert

MAILING ADDRESS
Carl Wayne Sweikert
8700 Jamestown Drive
Winter Haven FL 33884

PROFESSIONAL LICENSE

THIS CERTIFIES THAT THE PERSON NAMED IS HEREBY LICENSED TO CONDUCT OR ENGAGE IN THE PROFESSION INDICATED ABOVE. THIS DOCUMENT IS DULY ISSUED UNDER THE LAWS OF THE STATE OF DELAWARE.

Carl Wayne Sweikert
LICENSEE SIGNATURE

523366

AICP

BETHANY L. HIGGINS

HAS QUALIFIED AS A
MEMBER
AMERICAN INSTITUTE OF CERTIFIED PLANNERS

JULY 1994
DATE OF MEMBERSHIP

Joanne Jarrett
PRESIDENT

EXECUTIVE DIRECTOR

Beth Evans

State of Florida

Board of Professional Engineers

Attests that

Steven Lee Elias , P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201928701 R

P.E. Lic. No:
50734

STATE OF GEORGIA
Brian P. Kemp, Secretary of State
State Board of Engineers and Land Surveyors
Professional Engineer

License No. PE029583 Status: Active

Roger L Homann
72 Lake Link Circle SE
Winter Haven FL 33884

Expires: 12/31/2018
Issued: 6/3/2004

Real-time license verification is available at sos.georgia.gov/PLB

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LS5293**
Expiration Date February 28, 2019

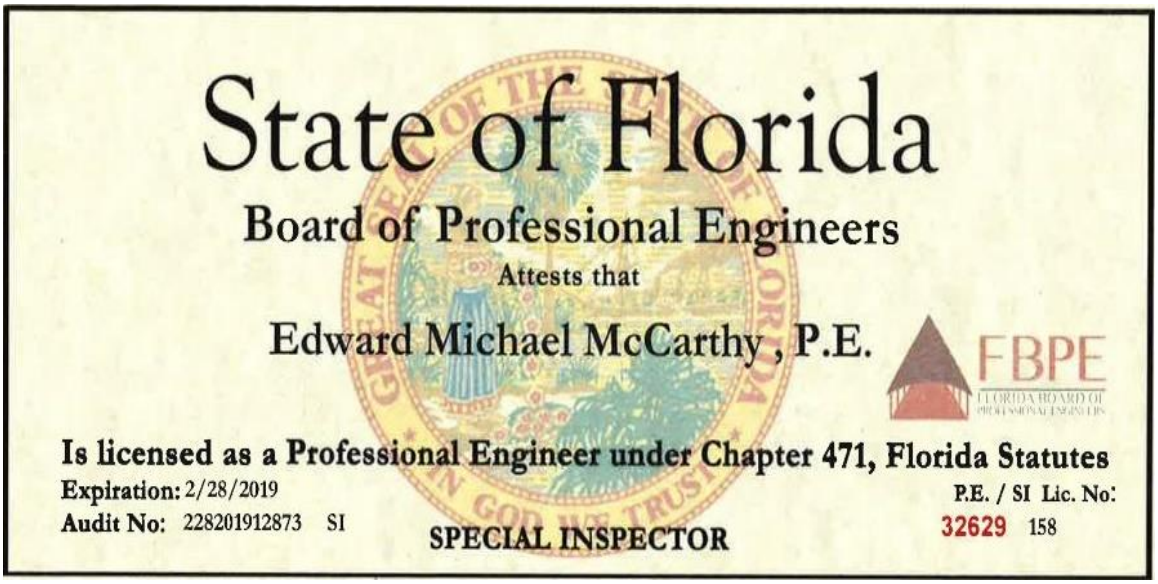
Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

ROBERT F DU BOIS
11 CRYSTAL WATERS DR
WINTER HAVEN, FL 33880-4955

ADAM H. PUTNAM
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.



State of Florida

Board of Professional Engineers

Attests that

Edward Michael McCarthy , P.E.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

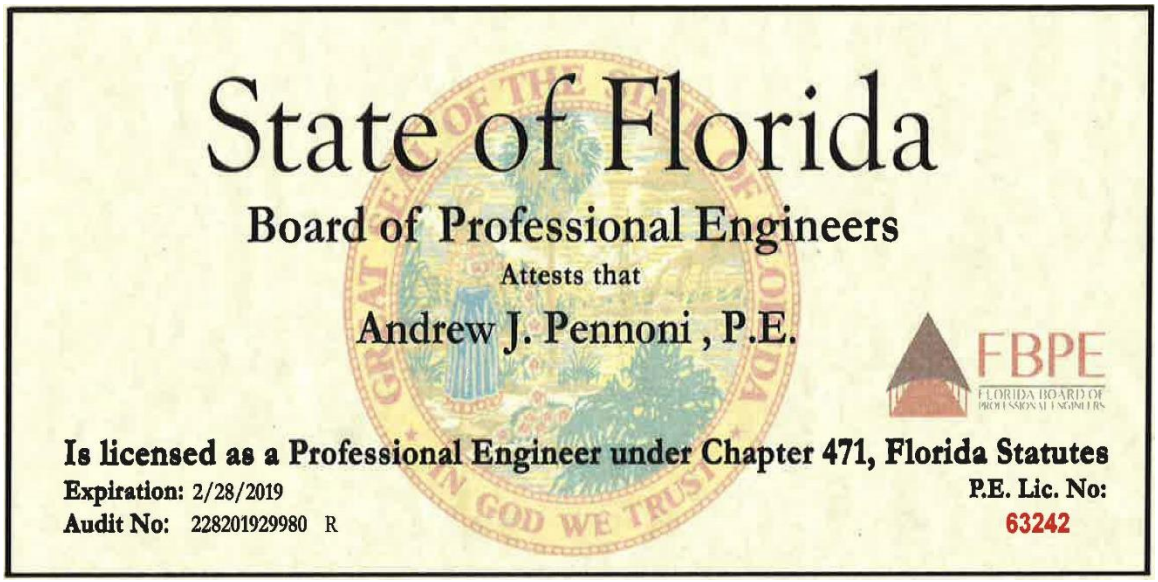
Expiration: 2/28/2019

Audit No: 228201912873 SI

SPECIAL INSPECTOR

P.E. / SI Lic. No:

32629 158



State of Florida

Board of Professional Engineers

Attests that

Andrew J. Pennoni , P.E.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019

Audit No: 228201929980 R

P.E. Lic. No:

63242

State of Florida

Board of Professional Engineers

Attests that

Jeremy Michael Case , P.E.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Do not alter this document in any form.

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

Expiration: 2/28/2019

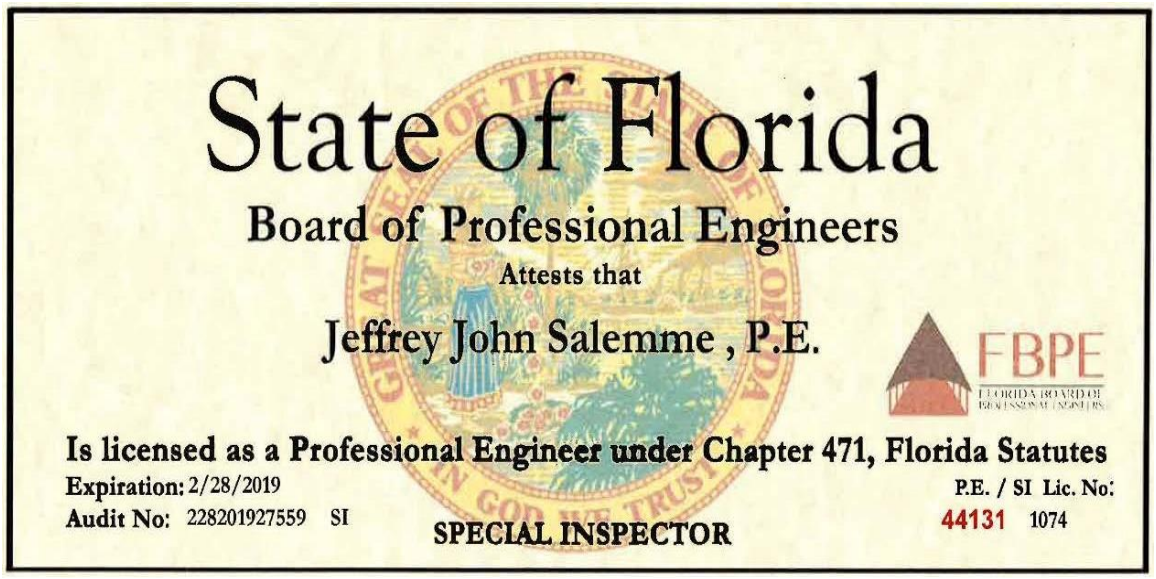
Audit No: 228201935578 I

P.E. Lic. No:

83972

-Always verify licenses online at MyFloridaLicense.com-

This is your license. It is unlawful for anyone other than the licensee to use this document.



State of Florida

Board of Professional Engineers

Attests that

Jeffrey John Salemme , P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

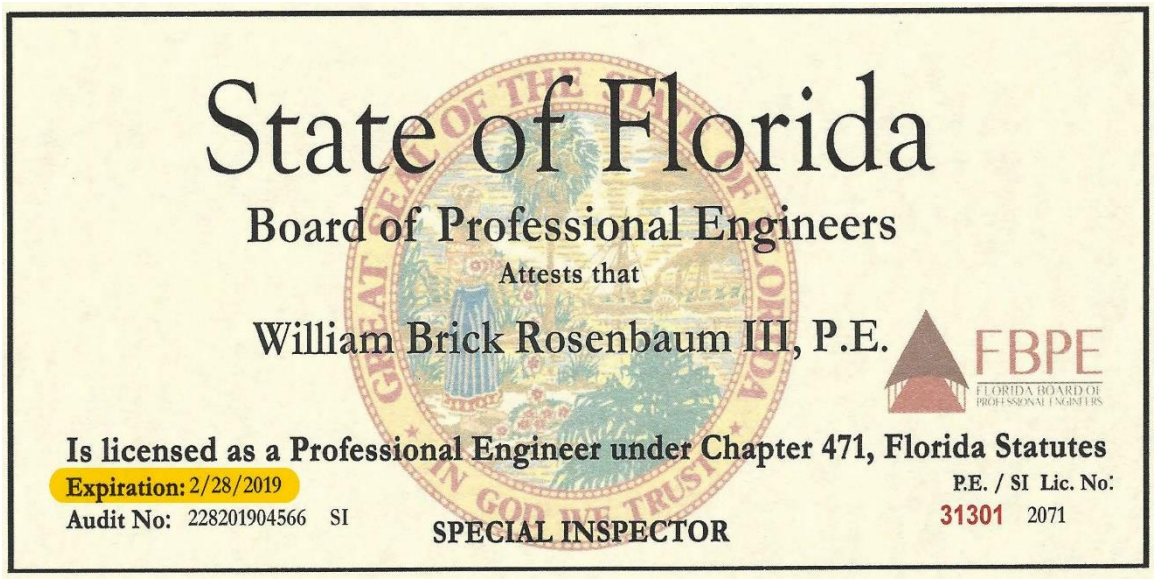
Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2019

Audit No: 228201927559 SI

SPECIAL INSPECTOR

P.E. / SI Lic. No:
44131 1074



State of Florida

Board of Professional Engineers

Attests that

William Brick Rosenbaum III, P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019

Audit No: 228201904566 SI

SPECIAL INSPECTOR

P.E. / SI Lic. No:
31301 2071

Arcadis

State of Florida
Department of State

I certify from the records of this office that ARCADIS U.S., INC. is a Delaware corporation authorized to transact business in the State of Florida, qualified on February 26, 1998.

The document number of this corporation is F98000001104.

I further certify that said corporation has paid all fees due this office through December 31, 2018, that its most recent annual report/uniform business report was filed on April 10, 2018, and that its status is active.

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

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Tenth day of April, 2018

Ken Detzner

Secretary of State

Tracking Number: CC9965121065

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

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

Department of State / Division of Corporations / Search Records / Detail By Document Number /

Detail by Entity Name

Foreign Profit Corporation
ARCADIS U.S., INC.

Filing Information

Document Number	F98000001104
FEI/EIN Number	57-0373224
Date Filed	02/26/1998
State	DE
Status	ACTIVE
Last Event	NAME CHANGE AMENDMENT
Event Date Filed	01/04/2007
Event Effective Date	NONE

Principal Address

630 PLAZA DRIVE
HIGHLANDS RANCH, CO 80129

Changed: 05/04/2016

Mailing Address

ATTN: KIM LASNICKI
110 West Fayette St.
Suite 300
SYRACUSE, NY 13202

Changed: 04/30/2017

Registered Agent Name & Address

C T CORPORATION SYSTEM
1200 SOUTH PINE ISLAND ROAD
PLANTATION, FL 33324

State of Florida

Board of Professional Engineers

Attests that

ARCADIS U.S., Inc.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201902636 R

CA Lic. No:
7917

State of Florida

Board of Professional Engineers

Attests that

David A. O'Connor , P.E.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201911496 R

P.E. Lic. No:
56803

State of Florida

Board of Professional Engineers

Attests that

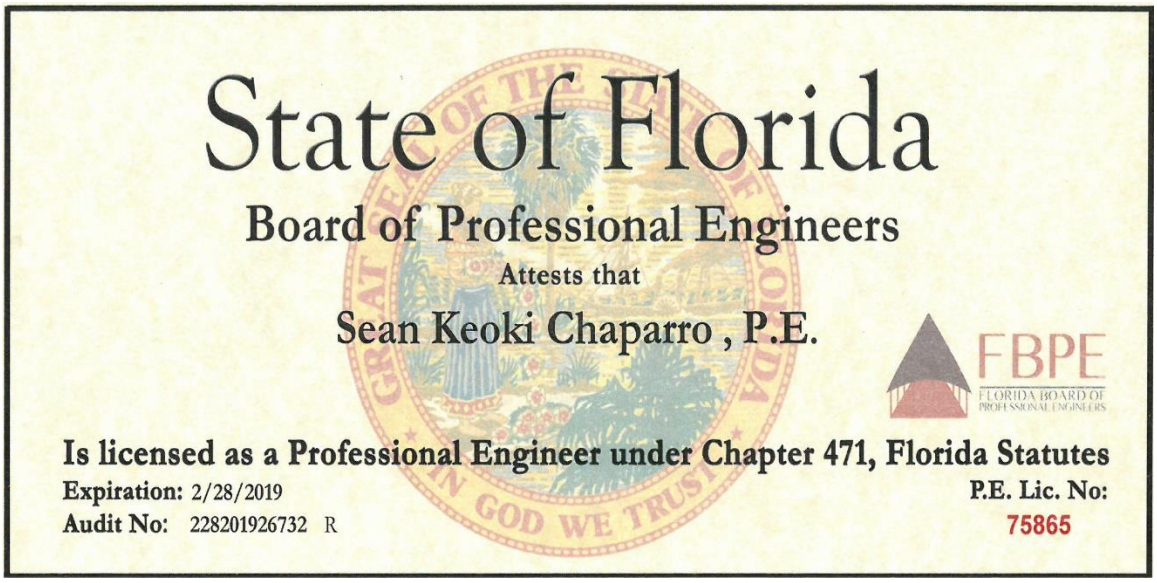
Christopher P. Hill , P.E.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201909990 R

P.E. Lic. No:
66933



State of Florida

Board of Professional Engineers

Attests that

Sean Keoki Chaparro , P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019

Audit No: 228201926732 R

P.E. Lic. No:
75865

ESA Scheda

State of Florida
Department of State

I certify from the records of this office that ESA SCHEDA CORPORATION is a corporation organized under the laws of the State of Florida, filed on August 7, 1992.

The document number of this corporation is V56874.

I further certify that said corporation has paid all fees due this office through December 31, 2018, that its most recent annual report/uniform business report was filed on March 6, 2018, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Nineteenth day of April, 2018

Secretary of State

Tracking Number: CU3020706773

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

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

Department of State / Division of Corporations / Search Records / Detail By Document Number /

Detail by Entity Name

Florida Profit Corporation
ESA SCHEDA CORPORATION

Filing Information

Document Number	V56874
FEI/EIN Number	59-3137163
Date Filed	08/07/1992
State	FL
Status	ACTIVE
Last Event	AMENDMENT AND NAME CHANGE
Event Date Filed	05/08/2017
Event Effective Date	NONE

Principal Address

5892 EAST FOWLER AVENUE
TAMPA, FL 33617

Changed: 02/04/2004

Mailing Address

5892 EAST FOWLER AVENUE
TAMPA, FL 33617

Changed: 02/04/2004

Registered Agent Name & Address

CT CORPORATION SYSTEM
1200 SOUTH PINE ISLAND ROAD
PLANTATION, FL 33324

QUALIFIED
STORMWATER MANAGEMENT
INSPECTOR

The undersigned hereby acknowledges that

Brandon Gray

has successfully met all requirements necessary to be fully certified through the Florida Department of Environmental Protection Stormwater Erosion and Sedimentation Control Inspector Training Program

Heather Ritchie

February 2, 2009
Inspector Number 21163

John Abendroth

NTS

NATIONAL TRENCH SAFETY

CERTIFICATE

This card confirms that

Brandon Gray

has attended the
Excavation Safety Competent Person Seminar

July 22, 2016
Date

Mario Vasquez
Instructor

This card expires three years from date of issue
Issued by: NTS Mikedon

"THE TRENCH AND TRAFFIC SAFETY SPECIALISTS"

QUALIFIED STORMWATER MANAGEMENT INSPECTOR

The undersigned hereby acknowledges that

Bradford Young

has successfully met all requirements necessary to be fully certified through the Florida Department of Environmental Protection Stormwater Erosion and Sedimentation Control Inspector Training Program

Hal Lunsford

Hal Lunsford

May 12, 2009
Inspector Number 21640

Heather Ritchie

Heather Ritchie

INTERNATIONAL SOCIETY OF ARBORICULTURE

CERTIFIED ARBORIST™

Bradford Young

Having successfully completed the requirements set by the Arborist Certification Board of the International Society of Arboriculture, the above named is hereby recognized as an ISA Certified Arborist®

Jim Skiera, Executive Director
International Society of Arboriculture

Skip Kincaid

Certification Board, Chair
International Society of Arboriculture

FL-6558A	19 Sep 2013	31 Dec 2019
Certification Number	Certified Since	Expiration Date

Tierra

State of Florida
Department of State

I certify from the records of this office that TIERRA, INC. is a corporation organized under the laws of the State of Florida, filed on November 20, 1992.

The document number of this corporation is P92000006561.

I further certify that said corporation has paid all fees due this office through December 31, 2018, that its most recent annual report/uniform business report was filed on January 5, 2018, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Fifth day of January, 2018

Ken Detzner

Secretary of State

Tracking Number: CC2471863820

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

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

Department of State / Division of Corporations / Search Records / Detail By Document Number /

Detail by Entity Name

Florida Profit Corporation
TIERRA, INC.

Filing Information

Document Number	P92000006561
FEI/EIN Number	59-3154723
Date Filed	11/20/1992
State	FL
Status	ACTIVE
Last Event	AMENDMENT
Event Date Filed	05/12/2014
Event Effective Date	NONE

Principal Address

7351 TEMPLE TERRACE HWY.
TAMPA, FL 33637

Changed: 07/15/2008

Mailing Address

7351 TEMPLE TERRACE HWY.
TAMPA, FL 33637

Changed: 07/15/2008

Registered Agent Name & Address

CT CORPORATION SYSTEM
1200 SOUTH PINE ISLAND
PLANTATION, FL 33324

State of Florida

Minority Business Certification

Tierra, Inc.

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

11/20/2017 to 11/20/2019

Erin Rock, Secretary
Florida Department of Management Services

office of supplier DIVERSITY

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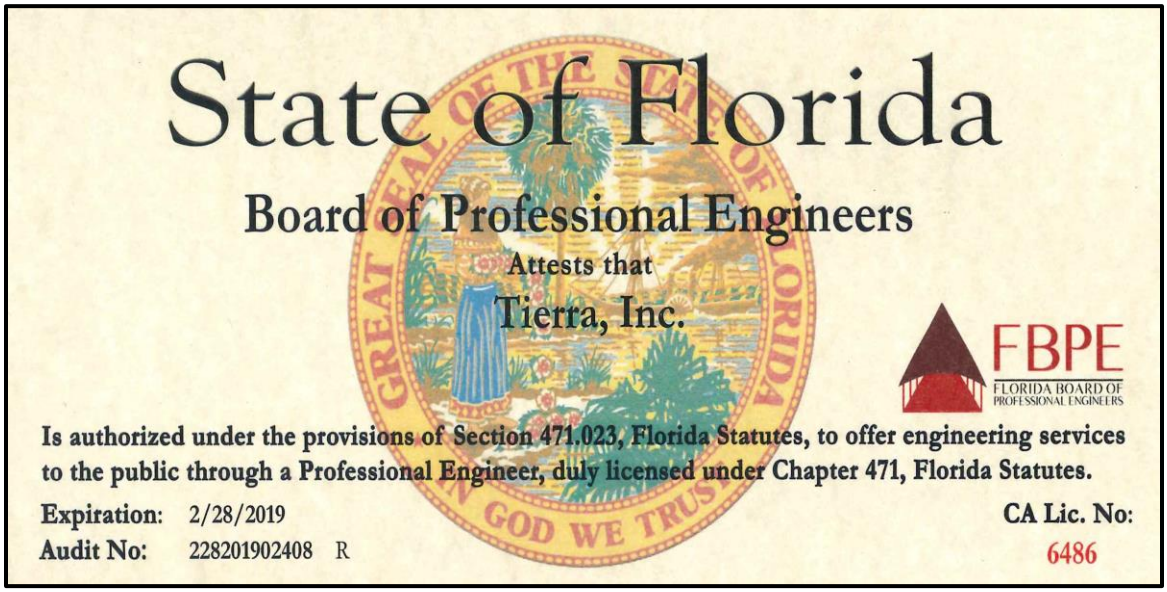

State of Florida

Board of Professional Engineers

Attests that

Tierra, Inc.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201902408 R

CA Lic. No:
6486

State of Florida

Board of Professional Engineers

Attests that

Henri V. Jean , P.E.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201923950 R

P.E. Lic. No:
55420

State of Florida

Board of Professional Engineers

Attests that

Larry Paige Moore , P.E.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201916371 R

P.E. Lic. No:
47673

State of Florida

Board of Professional Engineers

Attests that

Kevin Wei-Kuo Lo , P.E.

FBPE FLORIDA BOARD OF PROFESSIONAL ENGINEERS

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

Expiration: 2/28/2019
Audit No: 228201929255 R

P.E. Lic. No:
56959

Pennoni
2555 Nursery Road, Suite 104
Clearwater, FL 33764
727-420-2487

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