



Continuing Contract for Professional  
Engineering and Consulting Services  
for the  
**Municipal Air Park**  
Request for Letter of Interest L-54-16

Prepared by

**Kimley»Horn**



Continuing Contract for Professional  
Engineering and Consulting Services  
for the  
**Municipal Air Park**  
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*Proposer:*

**Kimley-Horn and Associates, Inc.**

600 North Pine Island Road  
Suite 450  
Plantation, FL 33324  
(954) 535-5100

*Contact:*

**Cody Parham, P.E.**

August 8, 2016



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## Section 1. Letter of Interest

August 8, 2016

Purchasing Office  
City of Pompano Beach  
1190 N.E. 3rd Avenue, Building C (Front)  
Pompano Beach, Florida 33060

*Submitted Electronically*

**Re: Continuing Contract for Professional Engineering  
and Consulting Services for the Municipal Air Park —  
Request for Letters of Interest: L-54-16**

Dear Members of the Evaluation Committee:

The City of Pompano Beach desires and deserves a general consultant that is experienced, responsible, and has the knowledge needed to help the City meet the challenges of maintaining and developing the Air Park.

**Kimley-Horn and Associates, Inc. (Kimley-Horn)** has worked closely with you over the past 11 years providing quality, responsive service to the City. We have performed a variety of tasks large and small. Understanding that this contract will be a continuation of the services we are currently providing, our team is comprised of firms familiar with the Pompano Beach Air Park and offers the City the following distinct advantages:

**Experienced Project Manager.** As project manager, I have over 13 years of experience in airport planning and engineering, including both general aviation and air carrier airports. I have worked with Steve Rocco and his staff at the Air Park for six years on a variety of airside and landside projects. I have a thorough understanding of the Air Park facilities, as well as goals and objectives of the City related to the Air Park. I am supported by a team that has worked successfully for the Air Park for many years and is already familiar with its technical aspects and administrative procedures.

**Exceptional Staff.** Our team is comprised of qualified, highly-respected individuals who bring unique skill sets to the challenges the City faces at the Air Park. **Michael Carey, P.E.** is the Principal-in-Charge and also responsible for the Quality Assurance Program and internal Quality Control. **Michael has over 30 years of experience at the Air Park, including 11 years as its General Engineering Consultant with**

### Kimley»Horn

**Kimley-Horn and Associates, Inc.**

*Federal Tax Identification Number:*  
560885615

600 North Pine Island Road  
Suite 450  
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*Contact: **Cody Parham, P.E.**  
Project Manager  
cody.parham@kimley-horn.com*



*Kimley-Horn staff participate in the 2016 5K Run for the Angels at Pompano Beach Air Park*



**Kimley-Horn. Tom O'Donnell, P.E.**, will support the team by providing FAA airspace analysis and review of proposed developments. Tom has analyzed hundreds of developments and submitted dozens of airspace determination requests to the FAA, including several projects within the City of Pompano Beach. **Carlos Maeda, P.E.**, as a former FAA Orlando Airport District Office employee, has extensive relationships with the administration and will be a valuable asset in the pursuit of discretionary funding. **David Rickerson** is a highly-qualified airport planner who has extensive experience in the development of airport master plans, business and capital improvement plans, as well as noise studies and mitigation work. **Michael Albert** with KB Environmental Sciences specializes in preparing airport-related noise and air quality assessments. His experience ranges from large Part 139-certified airports to regional general aviation airports in South Florida. **The benefits of this qualified and experienced team working on your behalf are real. Just last week, the FDOT notified the Air Park that the Relocation of Taxiway G project (design and grant assistance by Kimley-Horn) had secured \$1.7 million in District Intermodal Funds.**

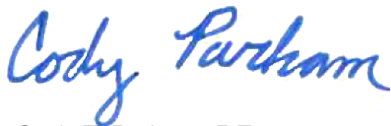
**Local Project Office.** A key ingredient to successful client service is a local office. Our Fort Lauderdale office is just minutes from the Air Park, and is the home to me and 52 other Kimley-Horn employees based in Broward County. As we have during our current contract, we will be a responsive partner to you and your needs.

**Qualified Subconsultants.** We have teamed with highly-qualified subconsultants to support our in-house services and address additional key services that may be needed by the City. We have an excellent working relationship with all of our subconsultants and each of them has airport experience. Our team includes **Hillers Electrical Engineering, Inc.** (MBE-certified by the state of Florida) for electrical design support; **AWN Design & Consulting Group, Inc.** for surveying services; **Tierra South Florida, Inc.** (MBE-certified by the State of Florida and SBE-certified by South Florida Water Management District) for geotechnical engineering; **Beacon Consulting Engineers** (MBE-certified by the State of Florida and SBE-certified by Palm Beach County) for mechanical, electrical, and plumbing engineering; **KB Environmental Sciences, Inc.** (MBE-certified by the state of Florida) for noise abatement and mitigation; and **Kenneth R. Carlson - Architect, P.A.** for architectural services.

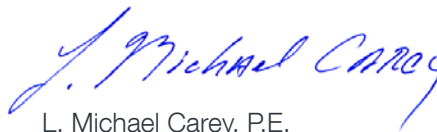
**Summary.** Our local knowledge, experience, and responsive service—coupled with the resources of a national leader in the aviation consulting industry—make the Kimley-Horn team the best candidate for this assignment. We offer unmatched client service from our local Fort Lauderdale office, broad experience in airport design and planning, exceptional resources, commitment to quality, and knowledge of our goals. We welcome the opportunity to continue our partnership with the Pompano Beach Air Park.

Very truly yours,

**KIMLEY-HORN AND ASSOCIATES, INC.**



Cody T. Parham, P.E.  
Project Manager



L. Michael Carey, P.E.  
Principal-in-Charge/Vice President

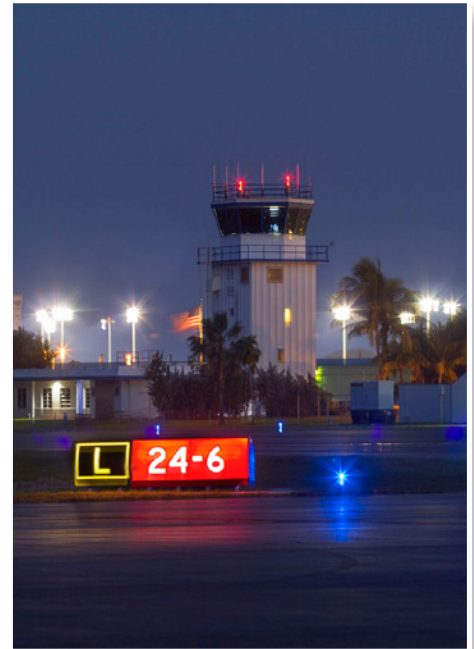
## Section 2. Technical Approach

An experienced qualified general consultant must have expertise and capabilities in a wide range of aviation and non-aviation related areas. The consultant must be well versed in all aspects of airport development and operation and must be current with the latest Federal Aviation Administration (FAA) advisory circulars, rules, and procedures. Further, the consultant must be well versed in the City of Pompano Beach development procedures and local market conditions. The consultant must have a keen understanding of the climate at the Air Park both from a business and political perspective, as well as an understanding of the engineering challenges unique to the Air Park.

The staff at the Air Park does an excellent job of running the Air Park on a day-to-day basis. The staff maintains the facility and operates the Air Park much in the way a private business would. The facility covers its operating cost and contributes its share to the overall City of Pompano Beach operating budget. The City's Public Works Department provides technical support to the Air Park for capital improvement project implementation including contract administration. Other departments in the City provide support as well. The consultant will support all of these functions by providing specific technical expertise beyond the comfort zone of City staff, and will be asked to perform a variety of on-call tasks. **Kimley-Horn and Associates, Inc. (Kimley-Horn) has served the City of Pompano Beach in this capacity for the past 11 years and in doing so, has provided all of these essential requirements.**

Our approach to serving you as your consultant is detailed in the following selected types of projects:

- Review and update of the Air Park Master Plan and Capital Improvement Plan
- Review and/or preparation of noise abatement/mitigation studies
- Complete design and construction phase services for Air Park Capital Improvement Projects
- Review of plans and projects submitted to Air Park for private developments to ensure compliance with all appropriate FAA Advisory Circulars and Regulations
- Preparation or review of plats that may be periodically required or processed for specific on-site developments
- Grant support services
- Stormwater/Drainage improvement projects and NPDES compliance
- Civil and Structural projects (i.e., structures, fencing, roofing, on-site water and sewer, pavements, etc.)
- Preparation and submittals of Air Space Study Checklists and FAA Form 7460 (Notice of Proposed Construction or Alterations) for required airport construction projects.



### Review and Update of the Air Park Master Plan and Capital Improvement Plan

The City last completed a master plan update in 2008. Kimley-Horn provided vital support for that update and continues to support the Air Park with minor revisions to the plan. The master plan update included both a Capital Improvement Plan and an Airport Layout Plan (ALP) set. Kimley-Horn has the CADD files of all the plans in the ALP set and can efficiently update the plans to reflect new improvements to the facility or new planned activities. As projects are completed, the ALP can be updated and new projects added should funding or demand dictate. Kimley-Horn recently completed a minor revision to the ALP and Business Plan to reflect recent development at the Air Park. **The update was completed in only a few weeks because Kimley-Horn was the designer of record for most of the projects and already had the design files available.**

## Preparing Noise Abatement and Other Studies and Reports

The Air Park strives to be a good neighbor to the community while serving noise-producing traffic such as helicopters and flight training. Part of being a good neighbor is implementing procedures that affect the traffic patterns around the Air Park. Helicopter operations have been problematic to nearby residents due to the noise and flight patterns over residential areas. Kimley-Horn has experience in developing flight training and noise abatement procedures, thereby minimizing the impact to the local neighborhoods. Our noise pollution experience in south Florida includes working with the City of Fort Lauderdale, City of Miami, and the City of Naples to alleviate neighbor concerns and develop procedures to minimize aircraft traffic impacts. Given this relevant experience, Kimley-Horn provides the most capable team to address noise abatement. Our most recent success involved an update to the Airport Layout Plan for the Watson Island Air Transportation Facility for the City of Miami. As part of this task, Kimley-Horn developed new aircraft (primary helicopter) operating procedures into and out of the facility. **We coordinated with other aviation facilities in the area to ensure flight patterns did not overlap and stayed out of residential areas.** We look forward to bringing this coordinated and community-facing approach to your Air Park.

## Design and Construction Phase Services for Air Park Capital Improvement Projects

Over the next several years the Capital Improvement Plan calls for several projects to be completed including:

1. Construct parallel Taxiway G
2. Fire Station #24
3. Air Park Pavement Maintenance

In addition, there are other projects which may or may not be constructed depending on funding sources and demand for services. These include:

1. Remodeled general aviation terminal/ administration building.
2. Airfield erosion control
3. Parcel YY development
4. Runway 24 approach safety enhancements
5. Runway incursion mitigation (RIM) program
6. Airfield geometric compliance updates
7. Airfield signage and marking compliance updates
8. Stormwater detention at Runway 33 approach
9. Conventional hangars and t-hangars with associated aprons and ramps



Over the past several years, Kimley-Horn has gained extensive experience in developing properties within the City and the Air Park. As part of the Runway 15-33 project, Kimley-Horn obtained the first Environmental Resource Permit (ERP) for the Air Park in many years which initiates the installation of a backbone drainage system at the Air Park. **Building on the relationships with the permitting agencies we have established, we will continue the implementation of the Stormwater Master Plan at the Air Park.** Kimley-Horn is uniquely qualified to implement the infrastructure improvements recommended in the Master Drainage Plan.

As part of the Runway 15-33 project, Kimley-Horn worked closely with the City and provided an Environmental Assessment for the runway extension portion of the project. We were successful in obtaining a Finding of No Significant Impact (FONSI) for the project. Kimley-Horn worked with Broward County and ultimately negotiated a tree removal permit which required a variance, along with obtaining permits to relocate gopher tortoise and burrowing owls. Kimley-Horn has an extensive amount of experience in all aspects of your Air Park's environmental issues.



Should the City choose to develop new buildings or rehabilitate existing ones, the architectural firm of **Kenneth R. Carlson - Architect, P.A.** is on the team and has the experience to do any municipal project. We have a long working relationship with Ken's firm and are currently working on several projects with him. Ken is currently working with Sheltair at the Air Park renovating several of their buildings.

Regardless of the project, Kimley-Horn has extensive experience in the development of construction documents for public advertisement. Our project approach to civil construction projects addresses the following key areas.

### Pre-design Geotechnical Testing

In order to validate the existing conditions, our geotechnical consultant, **Tierra South Florida, Inc.** (Tierra SF) will perform in-field and laboratory tests of the existing conditions. These tests will be in general accordance with FAA Advisory Circular 150/5320-6E, Airport Pavement Design and Evaluation. Tierra SF has worked with Kimley-Horn on the Runway 15-33 Rehabilitation, the Relocation of Taxiway Kilo, and the Extension of Taxiway G. Tierra has a very good understanding of the unique geotechnical characteristics of the Air Park.

### Pre-design Surveys and Platting

Team member **AWN Design & Consulting Group, Inc.** (AWN) will be responsible for survey and mapping. AWN brings their knowledge of the Air Park and its survey control grid. In addition, should the property require platting, **Steve Watts, PSM** of AWN is well suited to perform these services as he was instrumental in the development of the original Air Park plat.

### Meetings and Presentations before Stakeholder Groups, Advisory Boards, and Elected Officials

Stakeholder meetings are critical in the successful implementation of any project. For larger more complicated projects Kimley-Horn recommends stakeholder meeting be held with Air Park tenants and user groups to receive input on the impact of possible construction phasing options and to explore possible solution to minimize negative impacts.

Upon your request Kimley-Horn will prepare and brief the City Commission regarding the status of any project or plan.

### Preparing Construction Documents

Construction documents for airside projects should be consistent with FAA Advisory Circulars, in particular FAA Advisory Circular 150/5300-13, Airport Design. Technical specifications must be based on FAA Advisory Circular 150/5370-10, FAA standards for Specifying Construction of Airports. We have prepared construction documents for a number of projects at your Air Park which comply with these rigorous standards. Our subconsultant, **Hillers Electrical Engineering**, will prepare the plans and specifications related to power, data, lighting, and signage. **Hillers has been Kimley-Horn's sole electrical subconsultant at the Air Park for the past eleven years.**

Once we complete the technical specifications and the construction documents, the front end documents are prepared by the City of Pompano Beach with input from Kimley-Horn. The front end documents will contain required FAA language, such as Davis-Bacon wage provisions and Buy American procurement rules.

### Preparing Opinions of Probable Construction Cost

Kimley-Horn is sensitive to the cost of construction and the need to have accurate estimates of probable construction cost. All projects are reviewed internally by independent staff. They are tasked with looking at ways to do the work in a shorter time and for lower cost. We take a unique approach to costs, breaking them down into units of work, then even further by phase of work. This ensures that we can monitor costs in real time as construction progresses, no surprises at the end.

Kimley-Horn will use the full power of its regional and national experience to ensure the estimated cost reflects the current market in the South Florida area.

## Bid and Award Assistance

Once all the construction documents are complete and the project is ready for advertisement, the Kimley-Horn team will assist the City in advertisement and award. Kimley-Horn will support the City with:

- Attendance at the pre-bid conference
- Response to any questions and, if necessary, work with the City issuing required addenda
- Evaluation of apparent low bidder, checking references, and making recommendations regarding award
- Preparation of bid tabulations

Kimley-Horn has successfully worked with the City to procure construction many times as part of its current engineering contract and will continue to provide the expert and responsive service the City has come to expect.

## Construction Phase Services

As deemed appropriate by the City, we will provide construction phase services. Task to be provided under these services include:

- Prepare for and chair preconstruction conference
- Attend periodic progress meetings
- Respond to requests for information (RFI)
- Review monthly payment request and recommendation regarding payment
- Review request for change orders and recommendations to the City
- Review shop drawings
- Review progress of work to determine if it is in substantial conformance with construction documents
- Review geotechnical test results for conformance with contract documents
- Perform a substantial completion inspection and create a punch list
- Perform a final completion inspection
- Deliver record drawings, certifications, and closeout documents.
- Provide a part time or full time Resident Project Representative (RPR)



Kimley-Horn has provided Construction Phase Services for several projects at the Air Park, including the fillet widening, Taxiway N, Runway 15-33, and Taxiway K construction projects.

Kimley-Horn's subconsultants will also be heavily involved during the construction process. **Hillers Electrical Engineering** will be onsite whenever airfield electrical systems are being modified. Certified technicians from **Tierra South Florida** will provide on-site quality assurance testing and plant control observations at the paving contractor's batch plant. **AWN Design** will be available to provide horizontal or vertical control whenever necessary. Should buildings be involved, **Kenneth R. Carlson - Architect, P.A.** will provide periodic and threshold inspections.

We are confident that our experienced project team will make a seamless transition from design to construction.

## Review of Development Plans for Private/Public Development on the Air Park

Occasionally, development is proposed on the Air Park by sponsors other than the Air Park Staff. Examples include the fixed base operators (FBOs) along NE 10th Street and the Goodyear Blimp hangar. The proposed development will need

to be reviewed to ensure that they are compliant with the Airport Layout Plan, City development regulations, and FAA regulations. It will be critical to work with the project developers to ensure that the goals and objectives of the development are met while protecting the interest of the Air Park. Kimley-Horn is perfectly suited to assist the City in evaluating possible new water hazard locations, building and structure locations, locations of public assembly, and other improvements that could, if not properly planned, have a negative impact on the Air Park. **Our familiarity with the ALP and FAA regulations means that we can identify non-compliant design sooner, allowing a mutually beneficial solution to be reached before the projects progress too far.**

## Preparation or Review of Plats That May Be Periodically Required or Processed for Specific On-site Developments

**AWN Design & Consulting Group** has been providing surveying and mapping services to the Pompano Air Park either directly through the Airport Manager or as a surveying sub-consultant to Kimley-Horn since 2007. Any major construction project during that time, i.e., lengthening of Runway 15-33 or the Relocation of Taxiway Kilo has been based on as design survey by AWN. Their experience with Air Park procedures, existing survey control and the relationship with Kimley-Horn provide a very seamless design project from surveying to engineering. AWN has also performed survey and mapping services for 17 parcels at the Air Park, including the plat of FBOs and creation of the Air Park Property Map.

## Grant Support Services

With the City now eligible for federal and state grants; cost estimating, scheduling, and other support services will be necessary to position itself for not only entitlement but discretionary funding. Kimley-Horn has an excellent working relationship with the FAA Orlando District Office (ADO) as well as the FDOT District 4 office, and can work with the City in positioning the Air Park for future facility funding. Kimley-Horn has supported the City with funding requests for the Runway 15-33 rehabilitation, Taxiway K relocation, and the Extension of Taxiway G.

## Stormwater/Drainage Improvement Projects and NPDES Compliance

Kimley-Horn has a long resume of regional and local stormwater projects in south Florida. The region has some of the most complex and demanding stormwater treatment criteria in the country. The City's consultant must have both the technical knowledge of the regulations and the relationships with regulatory agencies to execute a successful project.

The project manager and principal-in-charge both have experience developing and implementing the Air Park's Stormwater Master Plan. However, we have added aviation stormwater expert **Jon Martin, P.E.** to the team as an additional resource to the City. Jon has designed, permitted, and constructed master drainage systems at several airports in Florida and is intimately familiar with the South Florida Water Management District (SFWMD) regulations.

With our combination of local and regional stormwater expertise, we are well equipped to guide the City through Stormwater Master Plan modifications and NPDES compliance requirements. Our approach starts with early communication between the City and regulatory agencies. Airports are a unique land use and the





regulations must be interpreted correctly and agreed to by all parties. Though the Air Park contains a lot of open space, much of it is designated safety area for aircraft overruns. We will balance the regulatory requirements with the need for airfield safety.

The Air Park has unique soil conditions that make the establishment of sod difficult. Pond banks can become unstable and erode during storm events. **Kimley-Horn has worked with the City to create specialized sod installation procedures and slope stabilization methods to minimize erosion.** This directly saves the City money by not having to divert labor to maintaining eroding slopes.

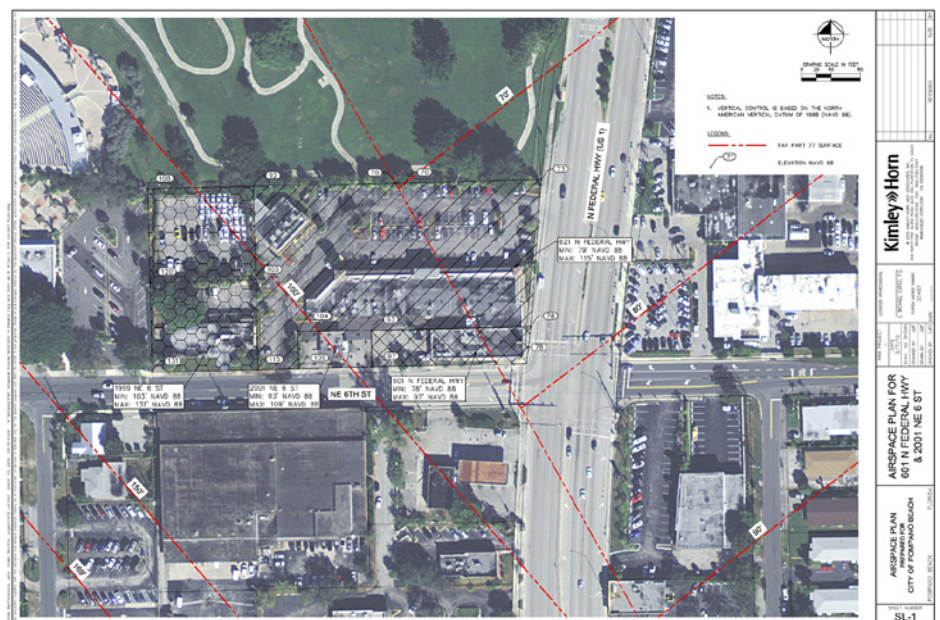
## Preparation and Submittals of Air Space Study Checklists and FAA Form 7460 (Notice of Proposed Construction or Alterations) for Required Airport Construction Projects

Kimley-Horn has a thorough understanding of the Obstruction Evaluation process. Using computer modeling similar to the FAA's, Kimley-Horn has the ability to model airspace above subject properties for Federal Air Regulation Part 77 surfaces, airport traffic pattern surfaces, and Terminal Instrument Procedure surfaces. With this information, Kimley-Horn can study the subject property's airspace and determine the most stringent imaginary surfaces, and advise clients as to limitations on vertical development. In addition to modeling capabilities, Kimley-Horn can also assist with filing FAA Form 7460-1 Notice of Proposed Construction or Alteration. With Kimley-Horn, you get a Firm who understands how the FAA's process works, which will help expedite review times, and if needed, help negotiate for additional vertical clearance.

As your consultant, one of the primary duties we will perform is the preparation or review of airspace studies. As part of its current contract with the City, Kimley-Horn has performed numerous studies and has been successful in obtaining approvals to install high mast lighting in Community Park and next to the Air Park maintenance facility. Kimley-Horn has successfully worked with obtaining airspace approvals for a fixed based operator (FBO) development on Parcel BB, beachside high rises, and commercial developments on all sides of the Air Park. In each of these cases, Kimley-Horn completed the airspace study, submitted the on-line application on behalf of the City, and obtained determinations. Based on current trends, the City will need a knowledgeable consultant who can work with a variety of entities to obtain determinations.

### *Assisting City Planning Department in Review of Properties within the Air Park Overlay District*

In addition to the airspace studies performed on behalf of the City, Kimley-Horn has stepped into the role of advisor to the City in evaluating the heights of proposed buildings within the City's Airport Overlay District. Under its General Engineering Contract with the City, Kimley-Horn has evaluated the heights of proposed buildings both on the mainland and the barrier island. They proposed elevations are compared to the applicable FAA Part 77 surfaces and aircraft departure paths. Kimley-Horn provides opinions to the City as to whether the development complies with the terms of the Air Park Overlay District and provides recommendations for further review by the FAA or FDOT.





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for the  
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Section 3  
**Project Team Form**

**COMPLETE THE PROJECT TEAM FORM ON THE ATTACHMENTS TAB IN THE EBID SYSTEM. PROPOSERS ARE TO COMPLETE FORM IN ITS ENTIRITY AND INCLUDE THE FORM IN YOUR PROPOSAL THAT MUST BE UPLOADED TO THE RESPONSE ATTACHMENTS TAB FOR THE RLI IN THE EBID SYSTEM.**

**PROJECT TEAM**

RLI NUMBER \_\_\_\_\_

Federal I.D.# \_\_\_\_\_

**PRIME**

Role	Name of Individual Assigned to Project	Number of Years Experience	Education, Degrees
Principal-In-Charge	_____	_____	_____
Project Manager	_____	_____	_____
Asst. Project Manager	_____	_____	_____
Other Key Member	_____	_____	_____
Other Key Member	_____	_____	_____

**SUB-CONSULTANT**

Role	Company Name and Address of Office Handling This Project	Name of Individual Assigned to the Project
Surveying	_____ _____	_____ _____
Landscaping	_____ _____	_____ _____
Engineering	_____ _____	_____ _____
Other Key Member	_____ _____	_____ _____
Other Key Member	_____ _____	_____ _____
Other Key Member	_____ _____	_____ _____
Other Key Member	_____ _____	_____ _____

(use attachments if necessary)



**Project Team - Continued**

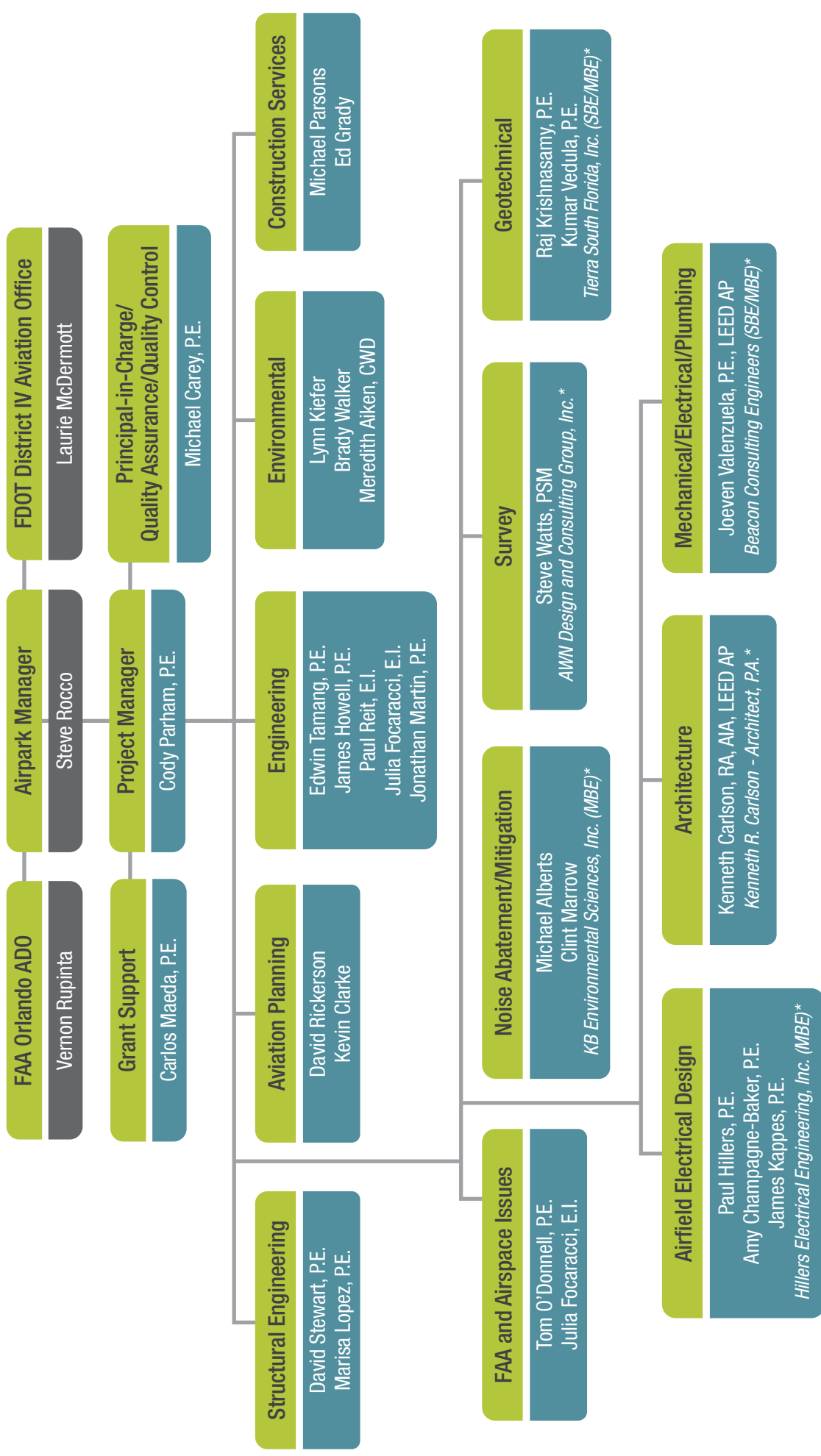
<b>Role</b>	<b>Name of Individual Assigned to Project Experience</b>	<b>Number of Years</b>	<b>Education, Degrees</b>
Environmental	Meredith Aiken, CWD	3	BS/MS Wildlife Ecology
Aviation Planning	Kevin Clarke	19	BS Aviation Management
Engineering/FAA And Airspace Issues	Julia Focaracci, E.I.	3	BS Civil Engineering
Construction Services	Ed Grady	32	BS Civil Engineering Technology
Engineering	James Howell, P.E.	3	BS/MS Civil Engineering
Environmental	Lynn Kiefer	25	BS Marine Biology/MS Oceanography
Structural Engineering	Marisa Lopez, P.E.	11	BS Civil Engineering
Engineering	Jonathan Martin, P.E.	22	BS Civil Engineering
FAA and Airspace Issues	Tom O'Donnell, P.E	16	BS Civil Engineering
Construction Services	Michael Parsons	15	N/A
Engineering	Paul Reit, E.I.	3	BS Civil Engineering
Structural Engineering	David Stewart, P.E.	38	BS/MS Civil Engineering
Engineering	Edwin Tamang, P.E.	10	BS Civil Engineering
Environmental	Brady Walker	12	BS Biology

**SUB-CONSULTANTS**

<b>Role</b>	<b>Company Name and Address of Office Handling This Project</b>	<b>Name of Individual Assigned to the Project</b>
Noise Studies	KB Environmental Sciences 9500 Koger Blvd N, Suite 211 St. Petersburg, FL 33702	Michael Alberts

## Section 4. Organizational Chart

*Our Team Organizational Chart is provided on the following page.*





## Section 5. Statement of Skills and Experience of Project Team

**Kimley-Horn** is a nationally recognized leader the aviation consulting community. The firm has a long history of successfully serving clients as an on-call general consultant on multi-year programs. Firmwide, we currently hold more than 60 on-call contracts covering 265 airports ranging in size from small, one runway non-controlled general aviation facilities to large air carrier facilities.

Founded in 1967 in Raleigh, North Carolina, Kimley-Horn began providing aviation consulting services in North Carolina and Florida in the early 1970's and now have grown to be rated in the top 10 *Engineering News-Record* ranking of aviation design firms.

Our experience with projects funded locally and though federal and state agencies includes:

- Airport planning
- Engineering design and construction administration
- Pavement management/maintenance services
- Part 150 noise studies
- Environmental assessments
- Grant administration
- GIS services
- Air industrial parks
- Airfield security systems
- Airport/heliport licenses
- Site selection
- FBO facilities design

Kimley-Horn has provided aviation consulting services to over 30 airports in Florida. Similar size and function airports include:

- Fort Lauderdale Executive Airport
- Vero Beach Airport
- North Perry Airport
- St. Lucie County International Airport
- Naples Municipal Airport
- Lakeland-Linder Regional Airport
- Jacksonville-Craig and Cecil Fields
- Belle Glade Municipal Airport

This is in addition to Pompano Beach Air Park, which Kimley-Horn has served for eleven years!

*The table on the following page summarizes our Florida aviation experience.*



## Florida Aviation Experience

GENERAL AVIATION	Master Plans	Airport Layouts	Capital Improvement Plans	Business Plans	Noise Abatement/Mitigation Studies	Airfield Improvements	Airfield Signs, Lights & Navigation	RPR/Inspection Services	Geotechnical & Construction Testing	3rd Party Plan and Review	Preparation of Surveys and Plats	Grant Support Services	Stormwater Design & Permitting	Utility Infrastructure/Sanitary and Water Systems	Security Improvements	FAA Airspace Studies	Airfield Hangar Development	Environmental Plant & Assessments (NEPA)	Environmental Compliance and Cleanup	Landside Facilities
Pompano Beach Air Park		→	→	→		→	→	→	→	→	→	→	→	→		→	→	→	→	→
Fort Lauderdale Executive Airport	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→			→	→
St. Lucie County International Airport						→	→	→	→	→	→	→	→							
Naples Municipal Airport						→	→	→	→	→	→	→	→	→				→	→	
Lakeland-Linder Regional Airport														→			→			→
Miami Executive Airport	→	→	→		→	→										→		→		→
Belle Glade Municipal Airport	→	→	→	→		→	→					→	→					→	→	→
Opa-Locka Airport				→	→	→							→	→						→
<b>AIR CARRIER AIRPORTS</b>																				
Miami International Airport					→	→	→								→	→	→			→
Southwest Florida International Airport	→				→	→		→					→		→	→				→
Fort Lauderdale-Hollywood International	→					→	→	→	→				→	→	→	→	→			→
Orlando International					→	→		→	→	→	→									
Tallahassee Regional Airport		→			→	→		→	→		→						→			→
Sarasota-Bradenton International Airport		→			→		→	→	→		→							→		
Destin-Fort Walton Beach Airport								→						→	→					→
Daytona Beach International Airport														→		→	→			

## Specific Project Related Experience

**Kimley-Horn** has a distinguished history of successfully completing projects, task assignments and providing sound advice to our aviation clients. Our success is due to a combination of effective project management, strong technical expertise, and a steadfast quality control program. With our depth of experience come lessons learned in airport design and construction. We focus on providing detailed plans, specifications and studies while being innovative in our project approaches. *We believe the sampling of projects and task summarized below (ongoing or completed within the past five years) best illustrate our team's qualifications and experience relevant to the City of Pompano Beach's RLI # L-54-16.*

### Fort Lauderdale Executive Airport General Consulting Services

Kimley-Horn was selected by the City of Fort Lauderdale as their general consultant for the Fort Lauderdale Executive Airport (FXE). FXE is a high traffic general aviation airport located in close proximity to the Fort Lauderdale-Hollywood International Airport (FLL). Our aviation specialists utilize their nationwide expertise to assist the airport for a variety of improvement projects and studies. Under this contract Kimley-Horn has recently provided the following services:

#### Airport Perimeter Fiber Optic System

Kimley-Horn prepared construction plans and provided construction phase services for a fiber optic loop system around FXE. The system included a new central computer system and database to control 28 vehicle gates around the airport. The system is Ethernet/IP based and includes the flexibility for future modifications, including security cameras and data exchange. Approximately six miles of fiber optic cable was installed, and the system is now complete and fully functional. Initially, FXE hired Kimley-Horn to provide an airfield safety, security, and access study to develop a plan that improved airport safety and reduced surface incidents by implementing an improved access control and security system into the FXE airside area. To achieve that goal, Kimley-Horn completed the following steps: Collected data/took inventory, including condition of existing equipment, existing signing and marking, traffic volumes, and interviews with FBOs and FXE staff Evaluated/analyzed existing airport conditions Researched various technologies that could help reduce the surface incident rate Developed four implementation packages; an opinion of probable costs for each implementation package; and a concept plan for recommended approach

Based on FXE's objectives, Kimley-Horn recommended an approach to minimize labor requirements for operation and provide the infrastructure to allow future upgrades at a minimum cost. In addition, the system flexibility provided opportunities not only to address tenant needs and requirements, but also to incorporate existing operating procedures.

#### U.S. Customs and Border Protection Facility

Kimley-Horn provided professional services for the design of a one-story facility to house the Airport's US Customs and Border Protection operations. The project design consisted of approximately 7,900 sq. ft. of gross building area and 5.4 acres of associated site work. Our team provided civil engineering design and redesign services including:

- Design of new aircraft ramp
- Employee and visitor site parking
- Access roads and entrances
- Demolition and modifications to the existing east perimeter road including underground utilities relocation
- New road and airfield signage and pavement markings
- Drainage and utilities design including drainage, sewer, and stormwater calculations for permitting applications



*Ft. Lauderdale Executive Airport – U.S. Customs & Border Protection Facility*



- Removal of existing fencing and design of new fencing
- Design and modifications to existing fiber optic connections
- Demolition of existing buildings
- Developing civil plans to revised site plan
- Providing permitting applications
- Completion of LEED online scorecard
- Bidding phase services

This project is a Silver LEED registered facility.

*Approximate construction cost:* \$4.8 million

### Relocation of Taxiway G

This project was for the design of the relocation of the portion of Taxiway Golf from its connection with the Runway 31 approach to its intersection with Taxiway Charlie. This portion of Taxiway Golf is currently 50 feet wide and is located 250 feet north of and parallel to Runway 13-31. The taxiway is within the Runway 13-31 Runway Safety Area, and operations on the taxiway are therefore limited.

Kimley-Horn was retained to provide design services for the relocation of the existing approximately 1,165 linear feet of Taxiway Golf between Runway 31 and Taxiway Charlie to provide a 300-foot separation from Runway 13-31. The new length of the relocated Taxiway Golf is approximately 1,250 feet, and the taxiway width of 50 feet will be maintained. The new pavement design accommodates Group III aircraft. Additionally, pavement rehabilitation was designed on Taxiway Charlie from its hold bar location at Runway 13-31 to just north of its intersection with Taxiway Golf.



*Ft. Lauderdale Executive Airport – Taxiway G*

The project consisted of the following elements:

- Demolition of the existing Taxiway Golf
- Earthwork, clearing, grubbing, and erosion control
- Construction of the relocated Taxiway Golf pavement
- Milling and overlaying the existing bituminous pavement on Taxiway Charlie
- Grading to promote sufficient surface drainage
- Pavement markings
- Lighting and signage improvements for the relocated taxiway
- Permanent erosion control through the application of hydroseed

The project's safety and operations plan, as well as the phasing plans, were of particular importance to minimize the impact of operations on Runway 13-31 and the airport's taxiway system.

*Total project cost:* \$2.3 million (estimated)



## FDOT Aviation and Spaceport Office Statewide Airfield Pavement Management Program System Update

Kimley-Horn performed as lead consultant to the FDOT in the update of the statewide airfield pavement management program for the past four years. Duties included personal inspection of 96 public airfield facilities throughout the seven FDOT districts in accordance with ASTM 5340 and the Federal Aviation Administration Advisory Circular 150/5380-6C. Utilized USACE MicroPAVER to perform condition analysis, future pavement performance, and major maintenance/rehabilitation (M&R) for the statewide airports. Developed detailed capital improvement budget plans for each airport assessed. Developed pavement network definition maps utilizing GIS and GPS applications for field navigation. Developed pavement rehabilitation policies and performed a cost analysis for major construction projects. Developed pavement performance prediction curves based off cumulative historic construction and inspection data for airports in the State of Florida. Development of multiple and statewide airport capital improvement project plans on the magnitude of \$2.52 billion dollars. Also supported the FDOT, Aviation Office Airfield Pavement Inspection Training Program as an instructor and in the preparation of training seminars on the pavement inspections for airport personnel in the State of Florida including operations personnel, airport engineers, airport consultants, and personnel from the FAA Orlando Aviation District Office.



### Subconsultants

Kimley-Horn's emphasis on dynamic teamwork and quality performance serves as the foundation from which we select our subconsultants for each distinct project effort. We work diligently to pursue firms who are revered and accomplished in their respective fields and demonstrate enthusiasm to be a part of our team. When looking for team partners, we focus on three key areas:

1. **Qualifications** – First and foremost, Kimley-Horn focuses on team member who are experts in their respective fields. These firms must have the resumes and the reputations as the best at what they do.
2. **Location** – A key ingredient in responsive service is location. Kimley-Horn focuses on firms in the local area who can respond quickly.
3. **Pompano Beach Air Park Experience** – Kimley-Horn also looks for firms whom we have worked with before but also who have worked for the City or at the Air Park.

We have responsibility to provide the best possible customer service to the City of Pompano Beach and expect the same level of commitment from each of our subconsultants. **These team members operate as a seamless addition to our staff**, providing superior technical skills with a balanced focus on client needs, goals, and concerns. We are proud to recognize the following outstanding subconsultant firms as partners in this endeavor:

**KB Environmental Sciences, Inc.** – Noise Abatement and Mitigation

**AWN Design & Consulting Group, Inc.** – Survey and Mapping

**Hillers Electrical Engineering, Inc. (HEE)** – Airfield Electrical Design

**Tierra South Florida, Inc. (TSF)** – Geotechnical Investigation, Quality Assurance Testing

**Kenneth R. Carlson - Architect, P.A.** – Architectural Services

**Beacon Consulting Engineers** – Building Mechanical, Electrical, and Plumbing Services

Nearly all of our subconsultants have recent, relevant experience at the Pompano Beach Air Park and are familiar with the facility and its operating procedures. Our recently added subconsultants have been selected based on their stellar reputations and history of quality work in South Florida aviation.

*Additional experience from our subconsultant partners includes:*

## Beacon Consulting Engineers

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### Sarasota International Airport Office Building Construction (2011)

Mr. Valenzuela provided electrical engineering design for new construction of employee office building for Sarasota International Airport with Hanson Professional Services.

### City of Pompano Fire Station #11 (2013)

Mr. Dennis Mikulski and Mr. Angelo da Silva provided electrical and plumbing engineering design, respectively, for City of Pompano Fire Station #11 when they were employed with another firm. The Architect of Record was Currie, Sowards and Aguila Architects.

### City of Pompano Fire Station #103 (2012)

Mr. Dennis Mikulski and Mr. Angelo da Silva provided electrical and plumbing engineering design, respectively, for City of Pompano Fire Station #103 when they were employed with another firm. The Architect of Record was Currie, Sowards and Aguila Architects.

## Hillers Electrical Engineering

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### Opa-Locka Executive Airport Site Improvement Project

Hillers Electrical Engineering (HEE) provided design services for the Site Improvement Project at Opa-Locka Executive Airport. Project included demolition of existing site and roadway lighting systems, relocation of existing FP&L overhead distribution systems, relocation of existing AT&T and Comcast communication systems, new FP&L, AT&T and Comcast underground ductbank systems, new lift station, and new road lighting systems.

#### Project Highlights:

- Relocate 1 mile of existing FP&L, AT&T and Comcast overhead distribution systems to facilitate the new development.
- Design 2 miles of new underground FP&L, AT&T and Comcast ductbank systems to support future Hangar and Terminal developments.
- Design 1 mile of new roadway lighting systems per Miami-Dade County and Illuminating Engineering Society (IES) Standards.
- Design new duplex lift station with standby generator per MDWASD Standards.

*Total Estimated Electrical Cost: \$2,643,000*

### Proposed Design Services for the FLL Expansion of New 8,000 Ft. Runway 10R/28L & Parallel Taxiway

Design Tasks include:

- All design shall be per FAA and BCAD standards.
- Provided Engineers Design Reports
- Provided Project Specifications, Bid Line Items, Quantities.

- Designed all temporary electrical systems during construction for all airfield lighting & signage & FAA NAVAIDS systems directly affected by the project.
- Designed new BCAD main & secondary duct banks systems, junction plaza's and cabling systems for existing electrical duct banks systems directly affected by project that served the completed airfield: Runways, Taxiways, Apron lighting & signage systems and NAVAIDS circuits that are directly affected by the project.
- Designed new FAA Interconnection Duct bank Systems for FAA fiber-optic cabling system between all proposed new FAA NAVAIDS and Existing FAA ATC and FLL Airfield Lighting Vault. (Fiber-Optic cabling system design & installed by FAA)
- Designed Runway 31 Threshold Relocation lighting & signage & PAPI systems relocations per current FAA standards.
- Designed Runway 10R/28L edge lighting & signage equipment layouts, cable & conduit systems, duct bank systems, CCR regulators power & control systems and airfield lighting computer controlled system modifications.
- Designed Runway 10R/28L Runway Guard lighting(RGL) system equipment layouts, cable & conduit systems, duct bank systems, CCR regulators power & control systems and airfield lighting computer controlled system modifications
- Designed new Runway 10R/28L Touch Down Zone (TDZ) lighting system equipment layouts, cable & conduit systems, duct bank systems, CCR regulators power & control systems and airfield lighting computer controlled system modifications.
- Designed new Runway 10R and 28L Lighted Wind Socks equipment layouts, cable & conduit systems, duct bank systems, airfield vault 480V power & control systems and airfield lighting computer controlled system modifications.
- Designed new Runway 10R and 28L PAPI Systems equipment layouts, cable & conduit systems, duct bank systems, airfield vault 480V power & control systems and airfield lighting computer controlled system modifications.
- Designed new Parallel taxiway and associated 10R/28L taxiway(s) & Apron edge lighting & signage equipment layouts, cable & conduit systems, duct bank systems, CCR regulators power & control systems and airfield lighting computer controlled system modifications.

## Palm Beach International Airport Chiller Replacement

Hillers Electrical Engineering provided design and construction services for replacement of three 400-ton Chillers and four Cooling Tower electrical distribution systems, 480V Motor Control Center and 4160V Switchboard. The existing 480V motor starter locations did not meet the current National Electrical Code and the existing 4160 Switchboard was out of date and beyond its reliable life span. The distribution system was replaced while maintaining power to the existing chiller plant.

### Project Highlights:

- Designed 4160V double ended switchboard with main-tie-main. Switchboard was installed in same location as existing without power interruption to chiller plant.
- Designed 480V Motor Control Center (MCC). The existing location for the 480V motor starters and panel boards did not meet the current National Electrical Code (NEC) for dedicated space above electrical equipment and proper working clearances in front of equipment. In order to comply with NEC, the new MCC was installed on the opposite side of the existing Chiller Plant without power interruption.

*Total Electrical Cost:* \$1,000,000





## **Palm Beach International Airport, Construct Golfview Infrastructure, Phase 1 Project**

Hillers Electrical Engineering provided design services for the Construct Golfview Infrastructure, Phase 1 Project at Palm Beach International Airport (PBI). Project included relocation of existing FP&L underground and overhead distribution systems, new FP&L distribution systems, relocation of existing AT&T, Comcast and FP&L Fibernet communication systems, new lift station, and new road lighting systems.

### **Project Highlights:**

- Relocate 4,200 feet of existing FP&L underground ductbank to facilitate the Golfview development.
- Relocate 800 feet of existing FP&L, AT&T, Comcast and FP&L Fibernet overhead distribution systems to facilitate new turn lane on Military Trail.
- Design 1.5 miles of new underground FP&L ductbanks to repower existing PBI Airfield Lighting and Navigational Systems and support future Hangar and Terminal developments.
- Design 2.5 miles of AT&T, Comcast, FP&L Fibernet and Airport Communication ductbank systems to support future Hangar and Terminal developments.
- Design 3,900 feet of new LED roadway lighting systems per Palm Beach County and Illuminating Engineering Society (IES).
- Design new duplex lift station per Palm Beach County Standards.

*Total Estimated Electrical Cost: \$2,160,000*

## **Palm Beach International Airport, Lighting Control System Replacement**

Hillers Electrical Engineering provided design and construction services for replacement of the existing Main Terminal, Concourses and Parking Garage lighting control system. The existing lighting control system was out of date and beyond its reliable life span.

### **Project Highlights:**

- Research the existing lighting control schedules and verified the existing lighting circuits through the Main Terminal, three Concourses and one Parking Garage. Created a new lighting control schedule identifying each circuit with timed on/off functions, photo control functions and occupancy sensors functions for the new lighting control system.
- New lighting control system was installed prior to the demolition of the existing lighting control system. Operation of lighting circuits was maintained at all times during construction.

*Total Electrical Cost: \$1,000,000*





## Kenneth R. Carlson - Architect, P.A.

### Goodyear Hangar, Pompano Beach, FL

Kenneth R. Carlson Architect remodeled the existing 44,784 Airship Storage Facility and a new 760 sf hazard storage building. Also modified associated paving by adding mooring circle, expanded airside ramp, and adjusted northern property line by adding an additional 0.65 acres to the existing parcel.

*Professional Services:* 2011

*Construction:* 2012

*Construction Cost:* \$3 million



### Pompano Air Park, Pompano Beach, FL



Kenneth R. Carlson and his consulting landscape architect designed and developed architectural and landscape documents as required to receive site plan approval. The firm and the client's consulting civil engineer and environmental engineer jointly represented the client in generating a master site plan. The Architect jointly represented the Client and his civil consultant at the Airport Authority meetings. He coordinated the team in generating a master plan for Airport Authority approval.

*Professional Services:* 2009-2016

*Construction:* 2015-2016

*Construction Cost:* \$5 million

### Sheltair, Pompano Beach FBO, Pompano Beach, FL

Kenneth R. Carlson Architect remodeled Sheltair's existing Pompano Beach FBO Facility, aided in hardening and enhancing the building, update parking lot, and designed new monument sign at south entry gate accessing airport.

*Professional Services:* 2010-2012

*Construction:* 2011-2012

*Construction Cost:* \$500,000



## **Banyan Air Service, Fort Lauderdale Executive Airport**

The Banyan Air Service Fixed Base of Operations (F.B.O.) at Ft. Lauderdale Executive Airport intertwines Old Florida and Key West styles. Designed by Kenneth Carlson, this exciting structure features a whimsical entry



tower, stirring the emotions of aviation enthusiasts while becoming Banyan Air's trademark. The project consists of a 25,000 s.f. aviation terminal and operations-related offices housed on the second story, and a 20,000 s.f. maintenance hangar. The Architect chose to create a unique air side entry feature simulating a traditional control tower with



a wind sock. *To date, the building has received the City of Fort Lauderdale's Community Appearance Board Award for Best Special Project Design (2007) and the Developer's and Builder's Alliance Community Advancement Award for Transportation Project of the Year (2008).*

*Professional Services:* 2006

*Construction:* 2006

*Construction Cost:* \$4 million

## **Tierra South Florida (TSF)**

### **Relocation of Taxiway Kilo – Pompano Beach Air Park, Pompano Beach, FL**

Provided geotechnical engineering services for the project which involved the relocation of Taxiway Kilo by 30 feet south of the existing Taxiway. Field work consisted of Standard Penetration Test (SPT) borings and pavement cores. California Bearing Ratio (CBR) tests were also performed on the field via a Dynamic Cone Penetrometer (DCP). Provided a geotechnical report discussing the subsurface conditions found, groundwater conditions at the site, and CBR and pavement core test results. Provided material testing and inspection services for the relocation of Taxiway Kilo. Services included providing engineering technician to pick-up samples for Proctor, sieve analysis, Atterberg Limit tests and organic content tests. Provided senior soil inspector during earthwork operations to test for compaction and monitor operations. Provided concrete testing during installation of lighting fixtures (cans) and provided asphalt inspections at the plant and in the field for compliance with FAA asphalt requirements.

### **Taxiway Echo Rehabilitation Project – Fort Lauderdale Executive Airport, Fort Lauderdale, FL**

Performed geotechnical exploration, pavement cores and laboratory testing for the rehabilitation which included reconstruction or milling and resurfacing of Taxiway Echo and connectors. Field study consisted of Standard Penetration Test (SPT) borings, BoreHole Permeability (BHP) tests, field CBR tests – Kessler Method, and pavement cores. Performed limited laboratory testing on selected soil samples, including grain size analysis, organic content, and Modified proctor Tests. Also performed laboratory CBR tests (ASTM D1883). Provided subsurface information, soil profiles, and test results.

### **Taxiway Delta & Charlie Rehabilitation Project – Fort Lauderdale Executive Airport, Fort Lauderdale, FL**

Performed geotechnical services for the milling and resurfacing of Taxiway Delta & Charlie. Performed Standard Penetration Test (SPT) borings and pavement cores. Provided a geotechnical services report discussing the subsurface conditions found, groundwater conditions at the site, and pavement core test results.

### **Taxiway Bravo Rehabilitation Project – Fort Lauderdale Executive Airport, Fort Lauderdale, FL**

Performed a geotechnical study for the rehabilitation of Taxiway Bravo. The project was approximately 2 miles long. The rehabilitation included widening of Taxiway Charlie, Mike and November and milling and resurfacing Taxiway Bravo. Performed Standard Penetration Test (SPT) borings along Taxiway Bravo and exit ramps as well as pavement cores. Provided geotechnical report summarize findings as well as geotechnical recommendations regarding excavations, ground water control and pavement design. During construction, provided material testing and inspection services for the taxiway rehabilitation. Performed laboratory testing including LBRs, Proctors, and concrete breaks. Provided earthwork and concrete inspections during subgrade and base construction. During asphalt pavement rehabilitation (milling and resurfacing), provided field asphalt inspectors to observe placement of test strip, tack placement, and surface and leveling courses. TSF inspectors were also in charge of tracking all tonnage, waste quantities, tack and prime quantities, and based on those numbers the inspectors verified pay applications. Also provided all asphalt plant inspections prior to and during all asphalt field activities.

### **Terminal 2 Modernization, Fort Lauderdale-Hollywood International Airport, Broward County, FL**

Performed a geotechnical engineering study for the Terminal 2 Modernization, which consists of remodeling of the existing interior of the Terminal 2 building. The project also includes an addition to the middle section of the building on the north end. The proposed addition design consists of an expanded roof and a mezzanine level on the north side. Field work included Standard Penetration Test (SPT) borings. Evaluated the use of shallow and deep foundations for support of the building addition. Provided geotechnical recommendations for shallow foundation design, alternate deep foundation (auger cast pile foundation) design option, ground floor slab, utilities, dewatering/excavations, and site preparation.

### **Terminal 3 Modernization, Fort Lauderdale-Hollywood International Airport, Broward County, FL**

Performed a geotechnical engineering study for the Terminal 3 Modernization, which consists of remodeling at 18 separate areas. Performed Standard Penetration Test (SPT) borings. Evaluated the use of shallow and deep foundations for support of the proposed building addition. Provided geotechnical recommendations for shallow foundation design, alternate deep foundation (auger cast pile foundation) design option, ground floor slab, utilities, dewatering/excavations, passenger loading bridge foundation design, and site preparation.

## **Management Plan**

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Based on the needs we anticipate for this assignment, Kimley-Horn has assembled a team of experts with experience in the key areas cited by the City of Pompano Beaches RLI # **L-54-16**. The organizational chart found in Section 4 shows our team structure and defines relationships among disciplines and tasks.

## **Management Plan Philosophy**

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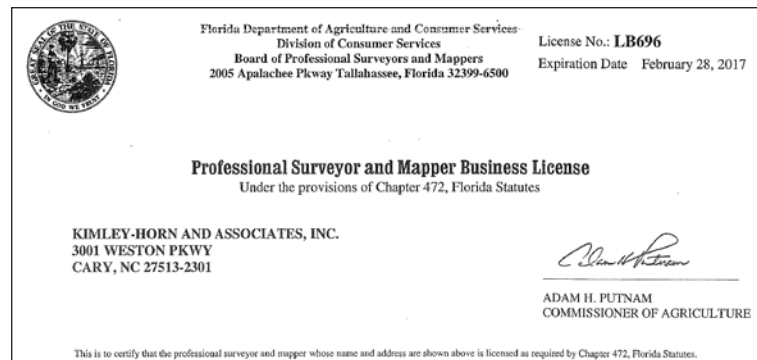
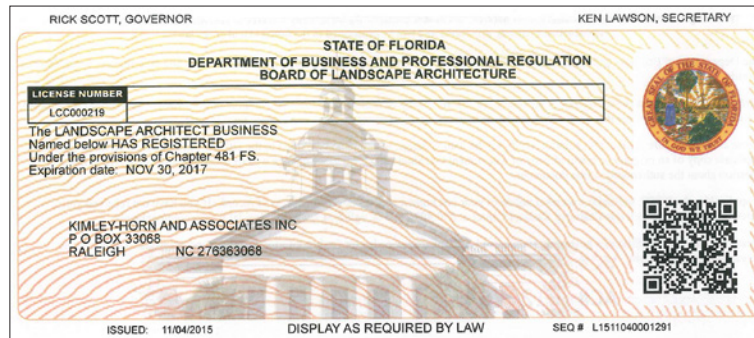
Ultimately, it is the people, the professionals who serve you, who are most important to the successful completion of any project. We know the importance of providing the City with quality personnel, responsive local accessibility, and services tailored specifically to the Air Park's individual needs. The Kimley-Horn team offers the technical staff necessary to bring your project to fruition on your terms: we combine the flexibility and "availability on demand" commitment that is essential to fostering a unified working relationship.

Kimley-Horn recognizes the importance of establishing a proven staffing plan at the project onset. Our local office in Plantation is within minutes of the Air Park; this proximity greatly enhances our capacity to meet tight deadlines and allows us to be actively involved and have a positive impact on your project. Our plan is structured to offer the highest level of responsiveness and personal service to the City. Our local project manager, **Cody Parham, P.E.**, will work alongside the Air Park to ensure smooth project coordination.

**Our tight-knit team has close working relationships with one another, which strengthens our ability to produce fast results.** With our collaborative approach, the City's staff will be an integral part of the team. We will be available to serve as a reliable partner to you, and the synergy from your participation on the team will guarantee successful progress and a high quality deliverable.



## Professional Licenses



## *State of Florida Department of State*

I certify from the records of this office that KIMLEY-HORN AND ASSOCIATES, INC. is a North Carolina corporation authorized to transact business in the State of Florida, qualified on April 24, 1968.

The document number of this corporation is 821359.

I further certify that said corporation has paid all fees due this office through December 31, 2016, that its most recent annual report/uniform business report was filed on January 28, 2016, 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 Eighteenth day of May, 2016*



*Ken Reifner*  
**Secretary of State**

Tracking Number: CU4949004970

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

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





## Subconsultant's Licenses

### AWN Design & Consulting Group, Inc.

Florida Department of Agriculture and Consumer Services  
 Division of Consumer Services  
 Board of Professional Surveyors and Mappers  
 2005 Apalachee Pkwy Tallahassee, Florida 32399-6500  
 License No: **LB7260**  
 Expiration Date February 28, 2017

**Professional Surveyor and Mapper Business License**  
 Under the provisions of Chapter 472, Florida Statutes

**AWN DESIGN & CONSULTING GROUP INC**  
 227 GOOLSBY BLVD  
 DEERFIELD BEACH, FL 33442-3068

*Adam H. Putnam*  
 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.

**BROWARD COUNTY LOCAL BUSINESS TAX RECEIPT**  
 115 S. Andrews Ave., Rm. A-100, Ft. Lauderdale, FL 33301-1895 - 954-831-4000  
 VALID OCTOBER 1, 2015 THROUGH SEPTEMBER 30, 2016

DBA: AWN DESIGN & CONSULTING GROUP, INC  
 Business Name: ALL OTHERS ((LAND SURVEYOR))  
 Receipt #: 319-261576  
 Business Type: SURVEYOR

Owner Name: STEVEN M WATTS  
 Business Location: 227 GOOLSBY BOULEVARD  
 DEERFIELD BEACH  
 Business Phone: 954-481-9682

Business Opened: 10/15/2009  
 State/County/Cert/Reg: DEERFIELD BEACH  
 Exemption Code:

Rooms: \_\_\_\_\_ Seats: \_\_\_\_\_ Employees: 2 \_\_\_\_\_ Machines: \_\_\_\_\_ Professionals: \_\_\_\_\_

For Vending Business Only		Vending Type:		Collection Cost		Total Paid
Tax Amount	Transfer Fee	NSF Fee	Penalty	Prior Years	Collection Cost	Total Paid
3.00	0.00	0.00	0.00	0.00	0.00	3.00

**THIS RECEIPT MUST BE POSTED CONSPICUOUSLY IN YOUR PLACE OF BUSINESS**

**THIS BECOMES A TAX RECEIPT**  
 WHEN VALIDATED

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

Mailing Address:  
 STEVEN M WATTS  
 2611 NE 50TH STREET  
 LIGHTHOUSE POINT, FL 33064

Receipt #1CP-14-00019864  
 Paid 09/04/2015 30.00

**2015 - 2016**

Florida Department of Agriculture and Consumer Services  
 Division of Consumer Services  
 Board of Professional Surveyors and Mappers  
 2005 Apalachee Pkwy Tallahassee, Florida 32399-6500  
 License No: **LS4588**  
 Expiration Date February 28, 2017

**Professional Surveyor and Mapper License**  
 Under the provisions of Chapter 472, Florida Statutes

**STEVEN MICHAEL WATTS**  
 2611 NE 50TH STREET  
 LIGHTHOUSE POINT, FL 33064

*Adam H. Putnam*  
 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.

**Business Tax Office**  
 150 NE 2nd Ave.  
 Deerfield Beach, FL 33441  
 Phone: (954)480-4333  
 E-mail: web.btr@deerfield-beach.com

**Business Tax Receipt**  
 2015-2016  
 Receipt Number: 16-00027060  
 Date Issued: 9/1/2015  
 Expires: 9/30/2016

**AWN DESIGN & CONSULTING GROUP**  
 STEVEN M. WATTS  
 2611 NE 30 ST  
 LIGHTHOUSE POINT FL 33064-7037

Classification: SURVEYOR  
 Business Location: 227 GOOLSBY BLVD  
 Applicant: LAND SURVEYING CONSULTING SRVC  
 Control Number: 0190910

Tax Amount \$ 117.60	Add Fees \$ 0.00	Penalty \$ 0.00	Total Amount Paid \$ 117.60
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Notice: This Tax Receipt becomes NULL and VOID if ownership, business name, or address changed. Business owner must apply to Business Tax Office for Transfer.

### Beacon Consulting Engineers

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 A&T Delinquent  
 Invoice & Activity  
 List Search

**Licensee Details**

**License Information**

Name: BEACON CONSULTING ENGINEERS, LLC (Primary Name)  
 Main Address: 100 NE 6TH STREET  
 UNIT 102  
 BOYNTON BEACH Florida 33435  
 County: PALM BEACH  
 License Mailing:  
 License Location:

**License Information**

License Type: Certificate of Authorization  
 Rank: Cert of Auth  
 License Number: 29530  
 Status: Current  
 License Date: 05/16/2011  
 Expires: 02/28/2017

**Special Qualifications**  
 Qualification Effective

**Alternate Names**

View Related License Information  
 View License Complaint

**State of Florida**  
**Minority, Women & Florida Veteran Business Certification**

**Beacon Consulting Engineers LLC**

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

**01/02/2016 to 01/02/2018**

**management SERVICES**  
 Florida Department of Management Services

Office of Supplier Diversity • 4050 Esplanade Way, Suite 380 • Tallahassee, FL 32399 • 904-487-0125 • www.osd.state.fl.us



Hillers Electrical Engineering, Inc.





## KB Environmental Sciences, Inc.

### Florida UCP DBE Directory Vendor Profile

As Of: 07/27/2016

Vendor Name: KB ENVIRONMENTAL SCIENCES INC

Certification: DBE/MBE

Former Name:

Business Description: CONSULTING TRANSPORTATION RELATED AIR QUALITY AND NOISE HAZARDOUS MATERIALS

**Mailing Address:**

9500 KOGER BLVD STE 211  
ST PETERSBURG, FL 33702-

**Physical Address:**

9500 KOGER BLVD STE 211  
ST PETERSBURG FL 33702-

District: 07

County: PINELLAS

**Website:**

Contact Name: LEOLA CARROL FOWLER

Phone: (727) 578-5152

Fax: (727) 578-5210

Contact Email: [CFOWLER@KBENV.COM](mailto:CFOWLER@KBENV.COM)

Current DBE Certification: Certified

Certifying Member: Florida Department of Transportation

ACDBE Status: N

Statewide Availability: Y

#### Certified NAICS

541618 - Other Management Consulting Services

541620 - Environmental Consulting Services

562112 - Hazardous Waste Collection

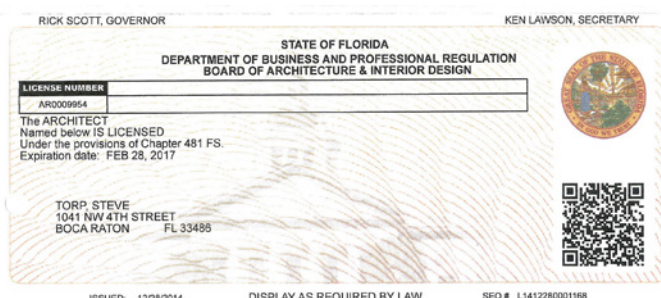
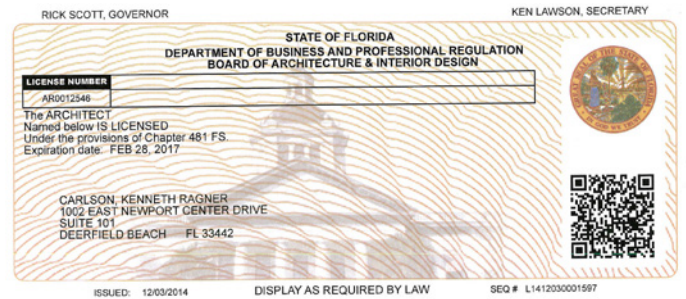
#### Specialty Areas

Environmental Consulting Services

Hazardous Waste Services


Other Business Services (nec)

## Kenneth R. Carlson – Architect, P.A.



**Tierra South Florida, Inc.**



 **SOUTH FLORIDA WATER MANAGEMENT DISTRICT**

REGISTERED VENDOR NO.: 115348

April 8, 2014

Mr. Raj Krishnasamy, P.E., President  
Tierra South Florida, Inc.  
2765 Vista Parkway, Suite 10  
West Palm Beach, FL 33411

**CERTIFICATION EXPIRATION DATE**  
April 8, 2017

Dear Mr. Krishnasamy:

Congratulations, the South Florida Water Management District (District) has certified your firm as a Small Business Enterprise (SBE). This certification is valid for three (3) years and may only be applied when business is conducted in the following area(s):

**Professional Engineering Consulting Services**

*Your submittal of bids or proposals to supply other products or services outside of the specialty area(s) noted above will not count toward SBE participation. If you require certification in other specialty areas, please contact the Procurement Bureau, SBE Section, for additional information.*


Renewal is required every three (3) years and should be requested a minimum of 45 days prior to the above expiration date.

If any changes occur within your company during the certification period such as ownership, affiliate company status, address, telephone number, licensing status, gross revenue, or any information that relates to your SBE Certification status, you must notify this office in writing immediately. It is imperative that we maintain current information on your company at all times. **FAILURE TO REPORT CHANGES MAY RESULT IN DECERTIFICATION.**

Certification is not a guarantee that your firm will receive work, nor an assurance that your firm will remain in the District's vendor database.

We look forward to a mutually beneficial working relationship.

Sincerely,

  
Colleen M. Robbs  
Sr. Compliance Specialist  
Procurement Bureau

for

3301 Gun Club Road, West Palm Beach, Florida 33406 • (561) 686-8800 • FL WATS 1-800-432-2045  
Mailing Address: P.O. Box 24680, West Palm Beach, FL 33416-4680 • www.sfwmd.gov





Continuing Contract for Professional  
Engineering and Consulting Services  
for the  
**Municipal Air Park**  
Request for Letter of Interest L-54-16

## Section 6 Resumes of Key Personnel



# Cody T. Parham, P.E.

Project Manager

## Professional Credentials

- Bachelor of Science, Civil Engineering, Georgia Institute of Technology, 2007
- Professional Engineer in Florida, #73904, January 12, 2012
- Member: Airport Consultants Council (ACC), Young Professionals Program Member; American Association of Airport Executives (AAAE), American Society of Civil Engineers (ASCE), Airfield Pavement Committee Member; and South Florida Business Aviation Association (SFBAA)

## Special Qualifications

- Has 13 years of experience in site civil and aviation engineering
- Experienced in commercial and aviation site layout and design, pavement design, stormwater management design; site grading; erosion and sedimentation control; layout and design of utilities, entitlement acquisition, construction administration
- Knowledgeable in AutoCAD Civil3D, MicroPAVER, COMFAA, FAARFIELD and Aeroturn
- Former ACI Level I certified Concrete Laboratory Testing Technician

## Relevant Experience

**Pompano Beach Air Park, Relocation of Taxiway G and RIM Improvements, Pompano Beach, FL** — Project manager. Taxiway D is the only parallel taxiway serving primary Runway 15-33. Its current layout violates several Advisory Circular minimum separation rules and contains several 'hot spots' identified by the FAA. The City of Pompano Beach selected Kimley-Horn to relocate Taxiway G to an acceptable separation from the runway and correct dangerous taxiway intersection geometries. Kimley-Horn provided design, bidding, site development, and construction phase services for the project. Tasks include burrowing owl and gopher tortoise site surveys, development of plans, permitting assistance, and bid assistance. *Kimley-Horn leveraged its knowledge of the Air Park's master plan and operation patterns to minimize closure duration of the primary runway while keeping the overall construction duration to a minimum.* As part of the project, Kimley-Horn updated the airfield's signage and lighting to meet Engineering Brief No. 89 standards while allowing for the addition of two future taxiway connectors.

**Pompano Beach Air Park, Taxiway G Grant Assistance, Pompano Beach, FL** Project manager. Kimley-Horn completed design of the Extension of Taxiway G in mid-2015. After discussions with the FAA's district office revealed that the project was a low priority for funding, the City asked Kimley-Horn to produce a brochure demonstrating the project's benefits to air travel and the surrounding community. The key to the brochure was explaining complex aviation concepts to the public. Kimley-Horn identified 15 safety enhancements included in the project. Then, they went to the Air Park's tenants and air traffic control tower and obtained signed letters in support of the projects. Finally, they analyzed the Air Park's noise contour map and showed how the project would reduce noise in the surrounding community, a big concern for the local residents and voters. Once the brochure was completed, Kimley-Horn identified likely advocates in the State and Federal legislatures. They reached out to their staffers and educated them about the benefits of this project not captured in the FAA's assessment criteria. The project is currently on a short list for FDOT funding.

### **Pompano Beach Air Park, Taxiway K Relocation, Pompano Beach, FL**

Project task manager. Kimley-Horn completed the design of the relocation of

Taxiway Kilo at the Air Park. This was the first federally funded project at the Airport in many years. The project includes the relocation of Taxiway Kilo to meet current FAA Design Standards. The taxiway is parallel to Runway 10-28 and is integral to the flow of traffic into and out of the south side of the airport. Runway 10-28 is the critical cross-wind runway supporting the primary Runway 15-33. The most recently completed Master Plan Update (2008) reflects the future closure of Runway 6-24 leaving PMP with two runways.

**Pompano Beach Air Park, Goodyear Airship Hangar, Pompano Beach, FL** — Project task manager. The Goodyear Airship is a long-term tenant at PMP and a local icon of the City of Pompano Beach. In the late 2000s, Goodyear began a program to replace its aging fleet with a new generation of airships. The new airship would require major modifications to the hangar facility and site. Goodyear selected Kimley-Horn as a subconsultant to Kenneth Carlson Architect, also a member of this GEC submittal.

Improvements include:

- Construction of a Waste Storage Building
- Increase size of the mooring circle
- Increase size of landing area
- Rehabilitating the existing structure
- Adjusting the site including perimeter fencing, site grading, and landscaping
- Upgraded site stormwater and utilities
- Add a Convault fuel storage tank

Kimley-Horn supported the project by providing due diligence, site planning support, civil engineering, and environmental permitting services.



**Southwest Florida International Airport (RSW) Taxiway F Depression Investigation and Repair, Fort Myers, FL**

Project manager. Taxiway F is the primary parallel taxiway serving RSW's only runway, 6-24. When several small depressions appeared out of nowhere on Taxiway F, the Airport called on Kimley-Horn to investigate the cause and provide repair plans. The urgent nature of the work required close coordination with the geophysical testing firm and the Airport Operations staff to perform the work quickly without impacting commercial service. The team utilized an innovative investigation technique known as electrical resistivity imaging to 3D map the pavement subsurface. Within two weeks, the investigation was completed and repair plans were produced. The team customized a program of grout injection, verification testing, and full-depth repair that produced a long-term repair solution while minimizing the closure period and grouting costs.

**Fort Lauderdale-Hollywood International Airport, Rehabilitation of North Airfield Pavements, Engineered Material Arresting System Beds, and RIM, Broward County, FL** — Project engineer. The Broward County Aviation Department (BCAD) has selected Kimley-Horn to provide professional engineering services associated with the rehabilitation of Runway 10L/28R and other airfield pavements at Fort Lauderdale-Hollywood International Airport (FLL). This Capital Improvement Project will enable BCAD to maintain the primary runway, 10L-28R, and other airfield pavements in good operational condition. Project tasks include traffic modeling, fleet mix turning analysis, geometric evaluation, hot spot reconfiguration, pavement evaluation, pavement rehabilitation design, rehabilitation options evaluation, and life cycle cost analysis. The project will also include replacement of the EMAS beds and jet blast deflectors.

**Fort Lauderdale Executive Airport, Rehabilitation of Taxiways Charlie and Delta** — Staff engineering analyst for rehabilitation of Taxiways Charlie and Delta. Project included mill and overlay of taxiways, construction of new taxiway connectors, application of pavement rejuvenation to shoulders, pavement markings, signage and lighting. Performed analysis of geotechnical investigation and existing conditions survey. Responsible for design of pavement section, horizontal geometry, taxiway and site grading, hydrological and hydraulic analysis, pavement marking design, opinion of probable cost, project schedule, and technical specifications.

**Fort Lauderdale Executive Airport (FXE) Taxiway Bravo Pavement Rehabilitation, Fort Lauderdale, FL** — Project engineer for the Kimley-Horn team that provided design services, including pavement structural design and evaluation, plans preparation, cost estimates, technical specifications, engineers report, and bid phase services for this project. Taxiway Bravo is a 4,950-foot-long and 50-foot-wide taxiway parallel to Runway 13-31. The project consisted of the pavement rehabilitation of Taxiway Bravo and the pavement widening of the taxiway connectors up to FAA design standards.

**Fort Lauderdale Executive Airport (FXE) Taxiway Charlie and Delta Rehabilitation, Fort Lauderdale, FL** — Project engineer. Taxiways Charlie, Delta and their connectors were showing severe signs of longitudinal and transverse cracking, depressions, and weathering. Kimley-Horn was retained to provide design services for the rehabilitation of 1,985 linear feet of Taxiway Charlie and 1,620 linear feet of Taxiway Delta. The project consisted of milling and overlaying existing bituminous pavements, grade correction, striping, and replacing all edge lighting with LED lights. Careful construction phasing was also required as access to fixed base operator ramps and the Customs ramp needed to be maintained during daylight hours. Construction commenced in the summer of 2012 and is on time with no change orders.

**Fort Lauderdale Executive Airport (FXE) Taxiway Echo Pavement Evaluation and Rehabilitation, Fort Lauderdale, FL** — Lead design engineer for the Kimley-Horn team that provided design services, including pavement structural design and evaluation, plans preparation, cost estimates, technical specifications, engineers report, and bid phase services for this project. Taxiway Echo is 6,200 feet long and 50-feet wide serving as the secondary parallel to primary Runway 8-26. The project consisted of geotechnical investigations of Taxiway Bravo and the pavement widening of the taxiway connectors up to FAA design standards.

**Opa-locka Executive Airport (OPF), Air Traffic Control Tower (ATCT), Opa-locka, FL** — Civil analyst for the Kimley-Horn team responsible for the design of an aboveground air traffic control tower and an auxiliary 2,980-square-foot base building at the Opa-locka Executive Airport. Responsibilities included site visits, weekly construction meetings, shop drawing review, RFI responses, change order requests, and pay request approvals.

# Michael Carey, P.E.

Principal-In-Charge; Quality Assurance/Quality Control

## Professional Credentials

- Bachelor of Science, Civil Engineering, Clemson University
- Professional Engineer in Florida, #35487, February 14, 1985

## Special Qualifications

- Has 36 years of aviation experience
- Areas of specialty include airport general consulting, airfield planning and design, and landside facilities (access, parking, water and wastewater, and security issues)
- Member: Airport Consultants Council (ACC) and Florida Airports Council

## Relevant Experience

**Pompano Beach Air Park Continuing Services (including Runway 15-33 Rehabilitation), Pompano Beach, FL** — Project manager and primary client contact responsible for providing consulting services on this general aviation airport in Broward County. *Has worked with City staff at the Air Park for more than 20 years on a variety of projects.* Most recently, Kimley-Horn was selected for the relocation of Taxiway Delta at PMP. This project is needed to align the taxiway to current FAA Advisory Circular recommendations.

Also project manager for the rehabilitation of the primary runway at the Air Park, Runway 15-33. The runway was totally reconstructed and included the installation of a Medium Intensity Approach Light System (MALS) serving the Runway 15 approach. Additionally, the project included the relocation of the Runway 33 threshold, relocation of Runway 33 PAPI's, construction of portions of Taxiway Delta, and the installation of a backbone drainage system beneath the runway. The project also included the relocation of burrowing owls, gopher tortoises, and tree

removal. An environmental assessment was prepared for this project. The project was completed with a construction cost of \$7 million. In addition to the rehabilitation of Runway 15-33, has served as project manager/primary client contact for a variety of projects at PMP including:

- **Master Plan Update** — Kimley-Horn, as a subconsultant to Hansen Professional Services, was primarily responsible for the preparation of the Airport Layout Plan (ALP) set.
- **Fillet Widening, Taxiway F and Taxiway D** — Kimley-Horn was the primary consultant for the geometric improvements to Taxiway F at Runway 15-33 and Taxiway D at Runway 6-24. Tasks included preparation of construction plans and specifications, bid and award services, and construction phase services. Project construction cost was \$340,000.
- **Continual Pavement Maintenance Program** — The City has instituted a pavement maintenance program to rejuvenate/seal existing asphalt pavements. This program expends approximately \$85,000 yearly in crack filling, pavement rejuvenating/sealing existing pavements. This program is intended to extend pavement life until more structural improvements are needed. Kimley-Horn has prepared the master plan, as well as construction documents for this continual program.
- **Airspace Study Approvals and Related Work** — Involved in a variety of on-airport, as well as off-airport airspace studies around the Air Park. Kimley-Horn has processed several on-airport Airspace Study Checklists on behalf of the City for projects at the Air Park. In addition, several projects off-airport, but in close proximity, have required FAA Form 7460 notification and FAA approval.
- **Relocation of Taxiway Kilo** — Project manager for the relocation for Taxiway Kilo. This project, completed in 2015 at a cost of \$3.0 million, relocated the taxiway to provide sufficient runway/taxiway clearance to Runway 10-28.

**Goodyear Facility Expansion, Pompano Beach Air Park, Pompano Beach, FL** — Project manager. Kimley-Horn acted as the Civil Engineer of Record for the expansion of the existing Goodyear facility at the Pompano Beach Air Park. Goodyear acquired a next generation airship and, as such, the facility was undersized for the coming new tenant.

Kimley-Horn has led the site planning process through the City of Pompano Beach and has been responsible for a variety of facility improvements including:

- Enlarging the mooring circle (area used for airship landing and departure)
- Enlarging the airship apron area used for service and maintenance
- Providing a fueling off loading and storage area
- Relocating the airfield security fencing including providing vehicle access gates
- Reconfiguring vehicular parking and drive isles
- Providing a potable water fire loop for fire protection
- Obtaining environmental permits including burrowing owls and storm water permitting
- Obtaining City building permits

**Terminal 4 Expansion, For Lauderdale-Hollywood International Airport (FLL), Fort Lauderdale, FL** — Project manager for the Kimley-Horn team for the replacement of Terminal 4 at Fort Lauderdale-Hollywood International Airport (FLL), which is a phased program to replace the existing Concourse H. The existing concourse aircraft parking configuration has significant conflicts with the new Runway 9R-27L and the new program will resolve these issues. The program, when complete will consist of 14 gates that replace the existing 10 gate Concourse H. The new facilities will provide more concessions, passenger amenities, and be a more environmentally friendly facility than the existing concourse. Once completed, the project will be the most modern building at the airport. The program as it currently exists includes T4 West, T4 East and FIS. Terminal 4 west is substantially complete and several gates are open. T4 East and FIS are currently under construction.

**General Engineering Consulting Projects at Fort Lauderdale-Hollywood International Airport (FLL), Fort Lauderdale, FL** — Project manager and primary client contact for this continuing consulting contract with Broward County Aviation Department (BCAD). Held contract with BCAD for more than 15 continuous years. Managed staff of six employees who spend majority of time serving BCAD as a client. Managed multiple subconsultants including architects, surveyors, mechanical, electrical and plumbing engineers, structural engineers, cost estimators, and other civil engineers. Task completed included Transportation Security Administration (TSA) issue support, airfield vault renovations, improvements to administrative office space, Taxiway Alpha rehabilitation, overlays of runways and taxiway at North Perry General Aviation Airport, remote parking improvements, relocation and re-roofing of Historic Naval Museum, updating various surveys, and CIP cost estimating.

**Fort Lauderdale-Hollywood International Airport, Rehabilitation of North Airfield Pavements, Engineered Material Arresting System Beds, and RIM, Broward County, FL** — Kimley-Horn was selected by the Broward County Aviation Department (BCAD) for the rehabilitation of Runway 10L-28R and other airfield pavements at Fort Lauderdale-Hollywood International Airport (FLL). Improvements will include runway pavement rehabilitation, taxiway geometry reconfiguration, lighting and signage upgrades, EMAS replacement, and blast fences.

Before commencing design, Kimley-Horn executed a thorough Program Verification Phase which sought to prescribe minimum and preferred rehabilitation methods for each unique pavement section. Work associated with this phase included visual inspections, geotechnical investigation, non-destructive testing, profilograph analysis, and traffic route modeling. Based on the data gathered, Kimley-Horn developed a matrix of five rehabilitation alternatives with seven unique evaluation criteria. Kimley-Horn performed a life cycle cost analysis and cost-benefit analysis which allowed the Airport to choose the rehabilitation method that best optimized the available funds.

Kimley-Horn also conducted a detailed evaluation of airfield geometry and conformity with the most current airfield design standards along with an assessment of the four designated hotspots and development of mitigation alternatives to address safety related concerns. The study reviewed the geometry of twenty five taxiway connections to the alignment of Runway 10L-28R. Each proposed file improvement was assessed based on operational utilization of the associated movement, resulting in the savings of millions of dollars in additional work.

**Watson Island Aviation Transportation Facility, Miami, FL** — Project manager and primary client contact for work with the City. Kimley-Horn has been involved with the City over the past several years in planning for the redevelopment of the Seaplane Plane Base and Heliport on Watson Island. Kimley-Horn updated the Airport Layout Plan set (ALP) and obtained a license to reopen the Heliport. As part of this task, Kimley-Horn has developed a Heliport Master Plan and revisited the seaplane facility function and use. Kimley-Horn has been active with both the FDOT and FAA in redeveloping this property, including preparing a Memorandum of Understanding (MOU) with other aviation facilities within three nautical miles of the Heliport. This MOU establishes flight procedures and coordination requirements between the facilities. An FAA Form 7480-1, Notice of Landing Area Proposal has been completed and submitted to the FAA for review and approval along with an updated ALP set. Also, a Florida Department of Transportation (FDOT) Public Airport Site Approval Application was prepared for the site. The new helicopter facility is under construction and should be open within the next several months.

# Carlos E. Maeda, P.E.

Grant Support

## Professional Credentials

- Master of Science, Management, Troy State University, 1988
- Bachelor of Science, Civil Engineering, University of Puerto Rico, 1978
- Professional Engineer in Florida, #41381, March 16, 1989
- Professional Engineer in Michigan and Puerto Rico
- Member: American Association of Airport Executives (AAAE), Florida Engineering Society, National Society of Professional Engineers (NSPE), Society of American Military Engineers (SAME), Airports Council International (ACI), and Florida Airport Council (FAC)

## Special Qualifications

- More than 36 years of aviation, transportation, and public infrastructure experience
- Professional background includes administrative management and business development, in addition to technical experience in planning, design, and construction management of projects
- Fully bilingual (Spanish/English) with experience working on projects in Latin America

## Relevant Experience

**Pompano Beach Air Park Continuing Services (including Runway 15-33 Rehabilitation), Pompano Beach, FL** — Provided FAA technical support and permitting support for the Reconstruct Taxiway Kilo.

**Pompano Beach Air Park, Taxiway G Grant Assistance, Pompano Beach, FL** Provided FAA technical support and grant support for the Relocation of Taxiway G. Kimley-Horn completed design of the Extension of Taxiway G in mid-2015. After discussions with the FAA's district office revealed that the project was a low priority for funding, the City asked Kimley-Horn to produce a brochure demonstrating the project's benefits to air travel and the surrounding community. The key to the brochure was explaining complex aviation concepts to the public. Kimley-Horn identified 15 safety enhancements included in the project. Then, they went to the Air Park's tenants and air traffic control tower and obtained signed letters in support of the projects. Finally, they analyzed the Air Park's noise contour map and showed how the project would reduce noise in the surrounding community, a big concern for the local residents and voters. Once the brochure was completed, Kimley-Horn identified likely advocates in the State and Federal legislatures. They reached out to their staffers and educated them about the benefits of this project not captured in the FAA's assessment criteria. The project is currently on a short list for FDOT funding.

**Broward County Airport Planning Consultant Services, Broward County, FL** Quality assurance/quality control reviewer. Kimley-Horn was selected as the prime consultant to lead the comprehensive airport planning services for Broward County Aviation Department (BCAD). The Kimley-Horn team is providing a wide range of professional and technical services in support of BCAD's airside, landside, and facilities planning initiatives. Project assigned to date include: North Perry Airport Interactive Airport Layout Plan/Three-Dimensional Airspace Analysis Programs (iALP/3DAAP), Review of Airports GIS Project, Port Everglades (PEV) Airspace Analysis, and North Perry Airport Runway Safety Enhancements EA.

**Daytona Beach International Airport General Consulting Services, Daytona Beach, FL** — Serving as project engineer. Kimley-Horn was selected to provide

on-call services on an as-needed basis to the County of Volusia and Daytona Beach International Airport staff. These services will be provided across all disciplines, including civil engineering, aviation planning, architecture, cost estimating, and project management over the duration of the contract (2011-2015). Tasks include preparation of an ALP amendment; hangar feasibility analysis; airspace assessment for new developments; federal and state funding assistance and grant assurances; cargo facility analysis; independent fee reviews; miscellaneous civil engineering improvements; and pavement inspection, strength analysis, and recommendations.

**Orlando International Airport (OIA) Continuing Civil Engineering Services, Orlando, FL** — Serving as project engineer. Since July 2008, Kimley-Horn has been serving the Greater Orlando Aviation Authority (GOAA) as one of their continuing civil engineering prime consultants. Through this contract, we have developed strong relationships with GOAA staff, gained knowledge of GOAA's policies and procedures, and a thorough understanding of OIA's operations and safety requirements. Involved with the following project:

**Orlando International Airport, BP-433: Runway 17L/35R Joint Repairs, Orlando, FL** — Project engineer. Kimley-Horn provided pavement distress survey and rehabilitation design for the rehabilitation of all joints (from preformed to silicone) on the 9,000 foot long Runway 17L-35R. The repairs consisted of re-sealing concrete pavement joints, removing and replacing full-strength runway concrete pavement, and airfield lights as necessary. Kimley-Horn also worked with GOAA Airfield Operations staff to replace pavement markings on OIA's 17R complex.



*Relevant Experience, cont.*

Kimley-Horn also provided construction administration inspections and services for the joint sealant and slab repairs within the 150-foot-wide by 9,000-foot-long boundaries of Runway 17L-35R pavement. Tasks included:

- Replacement of concrete-concrete and concrete-bituminous pavement joint seals
- Rout and seal cracked slabs
- Repair of concrete pavement spalls
- Replacement of airfield markings that are affected by the repair work

**Reconstruction of Runway 18-36 at Tallahassee Regional Airport, Tallahassee, FL** — Provided quality control review for the design and preparation of plans and specification for this project.

**St. Petersburg-Clearwater International Airport Runway 4-22 Rehabilitation, Clearwater, FL** — Provided FAA technical support during the design of the Rehabilitation of Runway 4-22.

**South General Aviation Apron Expansion/Reconfiguration at Tallahassee Regional Airport, Tallahassee, FL** — Quality assurance/quality control reviewer. Kimley-Horn provided design and construction phase services for the rehabilitation of the South Apron Overlay at Tallahassee Regional Airport (TLH). The project included rehabilitation of an existing 14.9-acre apron. The project included phasing of construction to allow continuing operation of the fixed base operation (FBO) facility located on the apron, as well as access to a hangar used by the State of Florida to house the Governor's aircraft. The project included the recycling in place of 7.7 acres of existing surface and base course as a new base course. This approach minimized construction costs, as well as reduced the construction time. This sustainable approach also reduced the amount of waste material being hauled from the site, the amount of virgin material needed for the project, and the amount of hydrocarbons emitted during construction of the project. The project also included the design of a new run-up pad and three new helicopter pads, as well as the rehabilitation of several existing helicopter pads, the removal of existing asphalt pavement, new pavement base construction, pavement widening, asphalt and concrete paving, surface rejuvenation, earthwork and grading, drainage improvements, airfield lighting and signage, and pavement markings.

**Volusia County Professional Aviation Planning Services for an Airport Master Plan Update at Daytona Beach International Airport, Volusia County, FL** — Quality assurance/quality control reviewer. Kimley-Horn was selected to provide master planning services for updates at Daytona Beach International Airport. To revise the airport's zoning ordinance our team developed a GIS-based, four-tier airspace map to ease the process of identifying potential developments requiring a detailed airspace analysis as a part of a development approval process.

**Aerostar, Runway 8/26 Rehabilitation at San Juan Luis Munoz Marin International Airport, San Juan, PR** — Project director for the Kimley-Horn team provided design of the pavement rehabilitation of Runway 8/26 and associated taxiway connectors. The project consisted of the rehabilitation of the center 9,300 feet of Runway 8/26, the taxiway connectors, and electrical work. The project included the mill and overlay of asphalt pavement on the runway and concrete rehabilitation work on the taxiway connectors as well as associated lighting and electrical work, pavement markings, grading, phasing as well as cost estimates, technical specifications and bidding assistance.

**Aerostar, Safety Management System Implementation at San Juan Luis Munoz Marin International Airport, San Juan, PR** — Project manager for the Kimley-Horn team leading the implementation of a Safety Management System (SMS) at Luis Muñoz Marín International Airport (SJU). The goal of the SMS implementation is to help foster a safety culture at SJU in which safety issues are proactively addressed and mitigated, and follow-up actions are actively monitored, as well as help anticipate the future FAA requirements on airport SMS once rulemaking becomes final. Components of this project include a gap analysis, SMS manual development, information reporting structure, overall program implementation, and recommendations on SMS training objectives and content. The gap analysis is currently being completed, which will immediately proceed into development of the SMS manual. The manual will contain all policies, responsibilities, and procedures for safety management, such as safety goals, objectives, reporting methods, and triggers for risk assessments. In addition, as part of this project, two safety risk assessments (SRAs) will be conducted, which will engage airport stakeholders in collectively identifying and mitigating safety risks on particular topics.

**Rafael Hernandez Airport, Aguadilla, Puerto Rico** — Project manager for the siting analysis of the air traffic control tower. Kimley-Horn Puerto Rico (KHPR) is currently serving as the prime consultant to the Puerto Rico Ports Authority (PRPA) to prepare the siting analysis to replace the temporary Air Traffic Control Tower (ATCT) at this airport. PRPA wants to commission the old Air Force control tower (historical structure) and the FAA requested a sitting analysis to validate commissioning. Based on coordination with PRPA, five initial replacement tower sites were identified for further consideration. The evaluation conducted by the KHPR team included TERPS analysis, future facilities conflicts, line of site analysis, obstruction shadowing, and airspace requirements.

## Professional Credentials

- Master of Science, Community Development, University of Missouri-Columbia, 1981
- Bachelor of Science, Political Science, Missouri State University, 1977
- Member: American Planning Association (APA) and Airport Council International - NA – Operations and Technical Affairs Committee, Planning Sub-Committee

## Special Qualifications

- Has 36 years of airport master planning, on-call aviation planning, environmental planning, terminal planning, land use/development planning and project management experience
- Expertise includes airport facilities analysis, including terminal area planning, general aviation facility layout, aviation forecasting, airfield capacity and geometry; air cargo facility geometry, collateral revenue support land use analyses, purpose need/project alternatives definition, airfield design standards assessment, airspace/obstruction analysis and operations planning and analysis
- Has served as the project manager or lead technical planner for on-call aviation planning services

## Relevant Experience

**Broward County Aviation Department (BCAD), On Call Planning and Airfield Development Plan at North Perry Airport (HWO)** — Project manager/lead planner. Performed a detailed re-assessment of the runway extension recommendations from the 2009 Master Plan along with the assessment of airfield geometry and operational safety based on the airfield geometric criteria contained in AC150/5300.13a Airport Design. This analysis included an airfield-wide review of runways and taxiways, ramp interface with the active airfield, airport vicinity approaches and obstacles and recommendations on a long-term process to address hotspots and geometric issues contributing to airfield safety concerns. Associated with this effort was the development of new forecasts of activity, an assessment of airfield capacity and facility requirements and coordination with airport tenants, ATCT and senior managers of BCAD.

### **Miami-Dade Aviation Department, On-Call Aviation Planning at Kendall Tamiami (TMB), Homestead GA (X51) and Opa Locka Airports (OPF)**

Project Manager/Lead Planner. Prior to joining Kimley-Horn, conducted a diverse mix of projects at Kendall Tamiami Airport (TMB), Opa Locka Airport (OPF) and Homestead General Aviation Airport (X51) as a part of On-Call Services. Abbreviated Facility Master Planning studies and updated Airport Layout Plan sets were prepared for both X51 and TMB. The TMB effort involved the analysis of landside and airside facilities, extensive stakeholder coordination and the quantification of demand and fleet mix projections that provided the justification for up to a 2,000' extension of the southern 5,000' runway to serve corporate jets flying Latin American stage lengths. At X51, the analysis considered a potential runway extension while also focusing on future hangar and apron development needs. Also evaluated FBO proposals on behalf of MDAD at Opa Locka Airport (OPF) taking into account minimum standards, market demand, business plan viability and proposed facilities.

### **Sebastian Municipal Airport (X26), Master Plan Update/On-Call Planning**

Prior to joining Kimley-Horn, served as a project manager/lead planner. The master plan identified an opportunity to reconfigure the existing airport runway system in a manner that would address a long-standing controversy between the airport and adjacent residential areas, while also providing new area for aviation and non-aviation revenue supporting development. The planning effort involved developing bottom up forecasts of future activity, assessments of existing facilities, their

condition, capacity and ability to meet a reasonable level of projected demand. The Plan recommended the closure of a deteriorating Runway 14/32 and the redevelopment of a previously closed Runway 8/26 alignment with a full length parallel taxiway. A new general aviation terminal location was identified as was a site for new T-hangars to meet based aircraft demand. To accommodate the proposed runway several hangar facilities were relocated. Subsequent to the master plan the runway, terminal and T-hangar development recommendations were constructed.

**Space Coast Regional Airport (TIX), Master Plan Update and General On-Call Planning Support** — Project manager/lead planner. Prior to joining Kimley-Horn provided both master planning and on-call planning services for TIX. Assignments included the successful development of the basis and recommended alternative to extend the primary runway at TIX. Also represented the airport in City Council and County Commission meetings relative to height and hazard issues and land use compatibility considerations. The master plan for TIX focused on the definition of an expanded development area on the east side of the airport to include a new GA terminal facility and conventional hangar development area along with access improvements into the area. The project included bottom up forecasts taking into consideration the role the airport plays in regard to activities at the Kennedy Space Center. A phased CIP with funding strategy was developed as a part of the master plan effort.

**Cleveland Department of Port Control (DPS), On-Call Aviation Planning at Cleveland Hopkins International and Burke Lakefront Airport** — Prior to joining Kimley-Horn served as the project manager and lead technical planner for on-call planning services for the Cleveland DPC including preparing the rationale for retaining Burke Lakefront Airport (BKL) as a component of the Cleveland airport system. Conducted the evaluation bringing to light the value of this downtown airport in offsetting capacity needs at CLE and the importance of the airport for the Cleveland Heart Institute presenting the findings to the Director of the Department of Port Control, the Mayor's Chief of Staff, the Mayor and the Planning Commission. Also led a fast-track update to the BKL Master Plan and Airport Layout Plan establishing both landside and airside development configurations and phasing priorities. Planning was done for a future GA Terminal, FBO development and to address RSA and design standard issues as well as evaluate the impact potential development around the airport would have on the airport's airspace.

**Coeur d' Alene Airport (COE) Master Plan Update** — Project manager/lead planner. Prior to joining Kimley-Horn prepared two airport master plans over the past 20 years at COE. The airport is home to 268 based aircraft of all types. The first of these assessed the need and identification of a future development area and it's configuration for general aviation facilities. This resulted in the identification of the southwest quadrant being identified for additional FBO development, individual personal and corporate hangars, overflow parking ramp and an airport GA terminal. Airfield improvements were defined to support this facility. The second master plan updated Mr. Rickerson's previous plan. Due to extensive development of the Southwest quadrant based on the previous plan's recommendation, the update focused on where to concentrate future aviation related development including the definition of a site for an aircraft maintenance base. Other elements addressed were new taxiway needs, land acquisition requirements, design standards, accommodation of a U.S. Forest Service Fire Fighting Tanker Base and conducting airspace analyses for instrument procedures in mountainous terrain.

**McCall Municipal Airport (MYL) Airport Master Plan** — Prior to joining Kimley-Horn served as project manager/lead planner. McCall Municipal Airport serves a diverse base of general aviation ranging from single engine piston to G-IV and Falcon 900 corporate jets. A unique element located at McCall was a United States Forest Service Smoke Jumper and Slurry Bomber base that presented unique aircraft and airfield challenges for MYL given its 5,200' MSL elevation and surrounding land uses and mountainous terrain. The Master plan focused on the need to meet a rapidly expanding fleet of turbo-prop and piston aircraft and significant growth in business jet activity on a very limited property envelop. Further the existing airfield did not conform to a number of key design standards including the need to relocate a major public roadway located near the north end of the sole airport runway and penetrating the RSA as well as deficient runway to taxiway separation. The planning effort evaluated facility needs for expanded parking apron and the location/configuration for this added ramp, justification and delineation of future land acquisitions, the siting of general aviation terminal and affiliated off airport landside access and improved access to the airfield and performance of a detailed TERPS analysis for potential approach upgrades.

**Additional planning services have been provided to aviation clients include but are not limited to:**

Spirit of St. Louis Airport (MO) – Part 150, ALP, Heliport  
 Zephyrhills Municipal (FL) – Master Planning, ALP  
 Lancaster Municipal (SC) – Master Planning, ALP  
 Bear Lake County (ID) – Master Planning, ALP  
 Teterboro Airport (NJ) – Airfield planning, RSA, ALP  
 Fort Myers, Page Field (FL) – Master Planning, Terminal  
 Lemhi County (ID) – Master Planning, ALP  
 Johnson County Executive (KS) – Environmental Assessment  
 Fort Wayne-Smith Field (IN) – Master Planning  
 Deer Park Municipal (WA) – Master Planning, ALP  
 Blue Ash Airport (OH) – Master Planning, Terminal  
 Jackson Hawkins Field (MS) – Master planning  
 Signature Flight Support, FBO – Planning (Hong Kong)  
 Martin State Airport (MD) – Airspace/Obstructions  
 Sarasota Bradenton Int'l (FL) – Airfield Planning  
 Daytona Beach Int'l (FL) - Airspace/Development Code  
 Blue Grass Airport (KY) – Master Plan  
 Long Beach Airport (CA) – Airfield Geometry Analysis  
 Columbia Municipal (MO) – Master Plan  
 Spirit of St. Louise (MO) – Heliport Master Plan

Ann Arbor Municipal (MI) – Part 150, Master Plan  
 Gooding Municipal (ID) – Master Planning, ALP  
 North Palm Beach Airport (FL) – Airfield Plan/On Call  
 Lemhi County Airport (ID) – Master Planning, ALP  
 Orlando Executive (FL) – Master Planning  
 Cascade Municipal (ID) – Master Planning, ALP  
 Sheboygan Municipal (WI) – Forecast, Facility Needs  
 Greenbrier Airport (WV) – Master Planning  
 George T Lewis Airport (FL) – Master Planning, ALP  
 Rostraver Airport (PA) – Master Plan, Design Standards  
 Hernando County (FL) – Airfield planning, land use  
 McCellan-Palomar Airport (CA) – Master Plan/On-Call  
 Triangle North Exec. (SC) – Master Plan, ALP  
 Hulman Regional (IN) – Master Plan/Part 150  
 Tallahassee Regional (FL) – Air Cargo/Master Plan  
 Augusta Regional (GA) – ALP/standards analysis  
 Tampa International – Master Plan/Exhibit A  
 Tucson International (AZ) – Airfield Planning  
 Richmond International (VA) – Master Plan  
 Michiana Regional (IN) – Master Plan/Environmental

## Professional Credentials

- Bachelor of Science, Aviation Management, Florida Institute of Technology, 1991
- Member: West Virginia Airport Managers Association ACC – Environmental Committee, Committee for Dulles

## Special Qualifications

- More than 19 years of experience providing airport planning and NEPA services at commercial service and general aviation airports
- Led, managed or had significant participation in 15 comprehensive master plan and/or ALP update projects in the United States (4 commercial, 11 general aviation)
- Prepared airside master plans for 15 commercial service/joint-use airports being privatized in Argentina
- Managed numerous on-call airport service contracts, land use and facility plans, terminal/landside plans, airspace analyses, NPIAS feasibility studies, and one site selection study
- Led, managed or participated in numerous environmental studies including EA, EIS, CATEX preparation, Coastal Zone Compliance, compatible land use planning, wetland impact permitting and mitigation, Part 150 studies, and sustainability plans
- Led or participated in several stakeholder engagement and public outreach campaigns for both commercial and general aviation airports

## Relevant Experience

**North Perry Airport, Airfield Safety Enhancement & Geometry Study, Hollywood/Pembroke Pines, FL** — Senior planner for the reevaluation of previous airfield development recommendations with consideration of extreme local land use constraints, current FAA taxiway geometry/design standards, and evolving FAA Runway Incursion Mitigation (RIM) program. This work will feed into concurrent master planning effort.

**Mena Intermountain Municipal Airport, Master Plan Update, Mena, Arkansas** — Senior planner addressing “primary” runway designation, justification of multiple runways, safety related configuration improvements and Runway Visibility Zone and close-spaced intersecting runway end concerns.

**Campbell County and the Lynchburg Economic Development Authority, Airpark Planning Study, Lynchburg, Virginia** — Project manager and lead planner for evaluating the feasibility of developing a commercial Airpark at the Lynchburg Regional Airport (LYH). The purpose of the Airpark would be to support economic vitality within the region by capitalizing on available airport. The study evaluated various ownership structures and the ability of the site to accommodate both aeronautical and other commercial uses. The issues of FAA grant assurances, through-the-fence operations, obligated land release were also evaluated. Potential site configuration, environmental and terrain constraints, airspace protection and aircraft circulation were also addressed.

**Bentonville Municipal Airport, Master Plan Update, Bentonville, Arkansas** Senior planner performing the evaluation of facility requirements and alternative development scenarios. Major issues included constrained property limits, airfield configuration and non-standard conditions to safely operate and maintain a turf runway adjacent to the primary paved runway and a man-made, public fishing lake located within the Runway Protection Zone (RPZ).

**Hampton Roads Executive Airport, ALP Update and Environmental Assessment, Hampton Roads, Virginia** — Lead airport planner preparing updated forecasts and addressing a replacement runway that was to be relocated and extended, substantial hangar and apron area development, adjacent commercial development and considerable airspace protection. Environmental Assessment and Sec. 404 permitting for the 5-year plan included 70 acres of wetland fill and over 100 acres of wetland conversion.

**Charlevoix Municipal Airport, Airport Master Plan Study, Charlevoix, Michigan** — Project manager and lead planner addressing the justification

and configuration of a needed crosswind runway with consideration of local land use constraints. Airport is popular tourist destination and support on-demand charter to a remote island. Issues included runway length, terminal location, through the fence operations, on-airport land use and airspace protection.

## Other Relevant Airport Planning Experience

**Master Plan/ALP Updates** — Huntington Tri-State Airport (WV), Akron-Canton Regional Airport (OH), Northwest Florida Beaches International Airport (FL), Blue Ridge Airport (VA), Culpeper Regional Airport (VA), Front Royal-Warren County Airport (VA), Hanover County Municipal Airport (VA), Stafford Regional Airport (VA), William Tuck Airport (VA).

**NPIAS Feasibility/Site Selection** — Port San Antonio/Kelly Field (TX), Horseshoe Bay Resort (TX), Northern Neck Planning District (VA).

**Environmental/NEPA/Sustainability** — Akron-Canton Regional Airport (OH), Huntington Tri-State Airport (WV), Burlington International Airport (VT), Leesburg Executive Airport (VA), Suffolk Executive Airport (VA), Reagan National Airport (DC), Newport News/Williamsburg International Airport (VA)

**General Aviation Facility Development** — Frederick Municipal Airport (MD), Manassas Regional Airport (VA), New Market Airport (VA), Hanover County Municipal Airport (VA), William Tuck Airport (VA), Hampton Roads Executive Airport (VA)



# David W. Stewart, P.E.

Structural Engineering

## Professional Credentials

- Master of Civil Engineering, Structural Engineering, University of Florida, 1978
- Bachelor of Science, Civil Engineering, University of Florida, 1977
- Professional Engineer in Florida, #31180, August 21, 1981
- Certified Special Inspector (Threshold Buildings), Florida Board of Building Codes and Standards (#263)
- 40-Hour Value Engineering Workshop No. 87001, Department of the Navy, Naval Facilities Engineering Command, 1990
- Member: American Concrete Institute, American Society of Civil Engineers (ASCE), Florida Engineering Society, National Society of Professional Engineers (NSPE), and Construction Specifications Institute (1980 to date)

## Special Qualifications

- Has more than 38 years of civil and structural engineering experience
- Experience with design and preparation of plans and specifications, construction phase engineering and administration of construction contracts, threshold building inspections, property condition assessments, due diligence, and analysis of existing structures, and forensic engineering of building structures, site work, and damage assessments

pump station, provided structural engineering services for ocean and intracoastal bulkhead improvements, and provided services to numerous private clients within the Town as well.

**Container Freight Handling Facilities, Port of Palm Beach & Hialeah, Riviera Beach, FL** — Served as project manager. Kimley-Horn provided planning, engineering, and surveying services for paving, drainage, utilities, warehouses, loading docks, maintenance buildings, and cross docks at five container freight handling facilities owned by Tropical Shipping Company Ltd. and its local holding company, Birdsall, Inc. We also provided land use plans for two of the Riviera Beach facilities, one at the Port of Palm Beach, and a master land use plan for all five Tropical Shipping sites. The firm also recently developed a land use plan for Tropical Shipping's port facilities on St. Thomas.

**Dade City Wastewater Treatment Facility (WWTF) Phase 1B Rehabilitation, Dade City, FL** — Structural engineer. Provided structural review of shop drawings and construction plans for new Administration Building.

## Relevant Experience

### BlastFX Analysis For Sarasota Bradenton International Airport, Sarasota, FL

Kimley-Horn was retained by the Airport Authority to develop an alternative to vehicle searches. Using the BlastFX software developed for the FAA, Kimley-Horn developed a structural model of the terminal, then tested the building's resistance to the sizes and types of explosive devices specified in the emergency guidance. The initial results were disappointing--the terminal could not withstand a blast from the largest specified explosive device from the point closest to the building within the parking lot without "catastrophic structural damage to the terminal building." After numerous alternatives were considered, it was determined that prohibiting full-size vans from using both lots would provide an acceptable level of protection. The analysis was completed and submitted to the Transportation Security Agency (TSA) to allow selective parking within 300 feet of the terminal without searching vehicles. Vehicles larger than an SUV have been prohibited by using this alternative measure approved by the TSA on its first submittal.

### Palm Beach County Park Airport Southside Improvement Program, Lantana, FL

— Project manager for a range of design, contract administration, and construction observation services for a six-phase, \$2.8 million airport improvement program. The six-phase program included design of new and reconstructed aprons with marking plans; replacement of existing overhead electric facilities with underground primary and secondary services; taxiway edge lighting; and provision of a full-time field representative during construction, including contract administration, construction observation, and final certification in adherence with FAA regulations.

### Palm Beach County Park Airport - Main FBO Hangar, Lake Worth, FL

Conducted property conditions assessment and structural strength evaluation for existing use.

### St. Lucie County Airport, 2004 Hurricane Damage Assessments, Ft Pierce, FL

Assessed damage to several building at St. Lucie Airport following hurricanes in 2004. Inspected the terminal, customs and boat building, and navigation beacon for storm-related damage.

**Town of Jupiter Continuing Consulting Services, Jupiter, FL** — Structural engineer for Town of Jupiter under Kimley-Horn's ongoing consulting contract. Provides municipal, structural, and coastal engineering in support of the Town's infrastructure.

### Town of Palm Beach Continuing Consulting Services, Palm Beach, FL

Structural engineer. Designed repairs to the Town's municipal docks and the D-14

**Florida Molasses Exchange Transfer Facility Phase II, Port of Palm Beach, Port of Palm Beach, FL** — Served as project manager. This second phase of improvements to the molasses transfer facility involved additional portside storage tanks to balance the rate of molasses truck delivery from the sugar mills in the Glades to the rate of loading and delivering molasses to seagoing ships. A three-acre site on Port of Palm Beach property was leased, first, to provide truck parking area to accommodate local drivers, and second; to provide molasses storage by way of two steel tanks 117 feet in diameter and 32 feet in height. The tanks are each capable of holding 15,000 tons of molasses in a volume of 2.4 million gallons. Kimley-Horn also provided planning, permitting, design phase, bid phase, and construction phase services on this portion of the project.

**Industrial Avenue Corridor Stormwater Improvements, Boynton Beach, FL** — Conducted on-site structural review of a concrete Florida Power & Light vault and duct that were undermined during construction. Recommended corrective measures for the contractor to support the structures to prevent further damage. Also performed a quality control role for the drainage design on this stormwater, water main, and roadway improvement project for the City of Boynton Beach. Project involved hydraulic and hydrologic modeling of approximately 23 acres of existing industrial development and on an adjacent residential area, detailed design of stormwater conveyance and retention facilities, detailed design of roadway improvements, permitting, bid phase, and construction phase services.

**JAXPORT Mitsui TraPac Container Terminal at Dames Point (fka Dames Point Container Terminal), Jacksonville, FL** — Served as project engineer. Kimley-Horn provided site civil and traffic engineering services for the Jacksonville Port Authority's (JAXPORT) 158-acre Mitsui TraPac Container Terminal project, which was initially identified as the Dames Point Container Terminal. The \$230-million facility is used by Mitsui O.S.K. Lines (MOL) and its terminal operating partner, TraPac, to load and unload container ships sailing to and from ports in Asia. Kimley-Horn's expertise was to design and permit the landside facilities for the Container Terminal, including administrative buildings and associated parking and infrastructure. The firm also designed and permitted site drainage facilities, container storage areas, master water and sewer systems, access for ingress and egress, and site security.

**Landside Services at the Port of Palm Beach, Riviera Beach, FL** — Civil engineer for sitework and design of sugar handling and warehouse facility. Also civil engineer for a study to determine the construction cost, project schedule, and permitting requirements involved in improving Florida Molasses Exchange's existing tank truck offloading station from a single truck operation to a two-truck simultaneous discharge operation.

**Seacoast Utilities 2011 Clearwell/Degasifier, Palm Beach County, FL** — Provided expert witness services to Seacoast Utilities regarding design deficiencies in a new water treatment facility. Peer reviewed original structural design and repair design performed by original engineer-of-record.

**Fire Station #5 and Emergency Operations Center, West Palm Beach, FL** — Performed a project peer review of a new fire station/emergency operations center for the City of West Palm Beach. The design review included structural, architectural, mechanical, electrical, plumbing and civil site work.

**Jones Boatyard and Marina, Miami, FL** — As project manager, conducted field review of existing structures. Evaluated the structural condition of the bulkhead and recommended maintenance or repair measures. The observed deficiencies were documented and then prioritized based on the apparent reduction in the original strength of the structure and potential for additional deterioration. Kimley-Horn performed a structural condition assessment of bulkheads, boat lifts, docks, covered wet slips, syncrolift, maintenance shops, parts storage, and office buildings.

# Marisa A. Lopez, P.E.

Structural Engineering

## Professional Credentials

- Bachelor of Science, Civil Engineering, University of Florida, 2006
- Professional Engineer in Florida, #73995, January 12, 2012
- Member: American Society of Civil Engineers (ASCE), Florida Engineering Society, and Society of Women Engineers (SWE)

## Special Qualifications

- Has 11 years of experience serving as a staff engineering analyst providing planning, design, and zoning services for various aviation and civil projects
- Responsible for performing structural calculations on a number of aviation and civil projects
- Assists with airport design services, including pavement evaluations, pavement grading, pavement condition surveys and reports, phasing, drainage design, data collection and organization, engineer's reports, construction phase services, cost estimates, technical specifications, and permitting
- Participated in the Florida Department of Transportation Aviation Office Airfield Pavement Inspection Training Course through the FDOT Statewide Airfield Pavement Management Program (certification obtained)

## Relevant Experience

**Opa-locka Executive Airport (OPF), Air Traffic Control Tower (ATCT), Opa-locka, FL** — Project engineer for the Kimley-Horn team responsible for the design of an aboveground air traffic control tower and an auxiliary 2,980-square-foot base building at the Opa-locka Executive Airport. Assisted the construction management team with various services, including site visits, weekly construction meetings, shop drawing review, RFI responses, change order requests, and pay request approvals.

**Fort Lauderdale Executive Airport (FXE) General Engineering Consultant, Fort Lauderdale, FL** — Staff engineering analyst for rehabilitation of Taxiway Bravo. Project included mill and overlay of Taxiway Bravo, and relocation and expansion of Taxiway Bravo connectors. Provided structural design of security poles and gates on airport perimeter.

**Fort Lauderdale Executive Airport (FXE) Taxiway Bravo Pavement Rehabilitation, Fort Lauderdale, FL** — Project for the Kimley-Horn team that provided design services, including pavement structural design and evaluation, plans preparation, cost estimates, technical specifications, engineers report, and bid phase services for this project. Taxiway Bravo is a 4,950-foot-long and 50-foot-wide taxiway parallel to Runway 13-31. The project consisted of the pavement rehabilitation of Taxiway Bravo and the pavement widening of the taxiway connectors up to FAA design standards.

**Fort Lauderdale Executive Airport (FXE) Taxiway Charlie and Delta Rehabilitation, Fort Lauderdale, FL** — Project analyst. Taxiways Charlie, Delta and their connectors were showing severe signs of longitudinal and transverse cracking, depressions, and weathering. Kimley-Horn was retained to provide design services for the rehabilitation of 1,985 linear feet of Taxiway Charlie and 1,620 linear feet of Taxiway Delta. The project consisted of milling and overlaying existing bituminous pavements, grade correction, striping, and replacing all edge lighting with LED lights. Careful construction phasing was also required as access to fixed base operator ramps and the Customs ramp needed to be maintained during daylight hours. Construction was completed in 2013.

**FDOT Aviation Office Consultant Contract, Statewide, FL** — Civil engineer. Completed the Airfield Pavement Inspection & Basic Distress Repair training program. Developed Quality Control and Procedures Manual for the SAPMP project. Performed pavement condition inspections and utilized USACE MicroPAVER to perform condition analysis, future pavement performance, and major maintenance/rehabilitation (M&R) for the statewide airports. Assisted in the development of pavement network definition maps for field navigation, capital improvement budget plans, and airport pavement management program reports.

**Florida Department of Transportation, Orlando, FL** — Civil analyst training on airfield pavement inspection and basic distress repair from the FDOT statewide pavement management program.

**Sarasota Bradenton International Airport Runway 4-22 Rehabilitation, Sarasota, FL** — Staff engineering analyst for rehabilitation of Runway 4-22. Project included mill and overlay of Runway 4-22.

**South General Aviation Apron Expansion/Reconfiguration at Tallahassee Regional Airport, Tallahassee, FL** — Staff engineering analyst for drainage on south apron and structural design of drilled shafts for perimeter light poles. Kimley-Horn provided design and construction phase services for the rehabilitation of

the South Apron Overlay at Tallahassee Regional Airport (TLH). The project included rehabilitation of an existing 14.9-acre apron. The project also included phasing of construction to allow continuing operation of the fixed base operation (FBO) facility located on the apron, as well as access to a hangar used by the State of Florida to house the Governor's aircraft. The project included the recycling in place of 7.7 acres of existing surface and base course as a new base course; this approach minimized construction costs, as well as reduced the construction time. The sustainable approach also reduced the amount of waste material being hauled from the site, the amount of virgin material needed for the project, and the amount of hydrocarbons emitted during construction of the project.

**St. Petersburg-Clearwater International Airport Runway 4-22 Rehabilitation, Clearwater, FL** — Project engineer. This project involved the design of the rehabilitation of Runway 4-22, including paving, drainage, and electrical systems. As part of the project, Kimley-Horn prepared a cost-benefit analysis to determine final runway width and length, as well as correct off-site drainage issues affecting the outfall for the runway drainage system.

**Airport Pavement Management System for Tallahassee Regional Airport, Tallahassee, FL** — Project analyst. Kimley-Horn prepared a pavement management system for all airport-maintained airside and landside pavements at TLH. The project included a field review of the pavements to determine the pavement condition index for each segment and development of a pavement management program based upon pavement condition and preferred maintenance procedures for the Airport. The system will be used in development of a Capital Improvement Program (CIP), projecting the need and budget costs for rehabilitation in future years. It is positioned as a pavement management tool, updated periodically for changes in condition due to rehabilitation and maintenance completion and pavement aging.

**Rehabilitation of Runway 8-26 at Antonio (Nery) Juarbe Pol Airport, Arecibo, Puerto Rico** — Project engineer. Kimley-Horn was contracted by the Puerto Rico Ports Authority to perform a pavement rehabilitation design for Runway 8-26 at Antonio (Nery) Juarbe Pol Airport in Arecibo, Puerto Rico. The pavement rehabilitation design consists of a variable mill and overlay to be performed in four phases, one of which includes asphalt cure time. The scope included the development of a Construction Safety and Phasing Plan (CSPP) as required by the FAA Advisory Circular 15/5370-2F. The CSPP is developed in orchestra with construction plans and specifications, with the intent of providing safety guidelines, plans for maintaining aircraft operations, and identifying constructions costs.

**Daytona Beach International Airport General Consulting Services, Daytona Beach, FL** — Project engineer. Kimley-Horn was selected to provide on-call services on an as-needed basis to the County of Volusia and Daytona Beach International Airport staff. These services will be provided across all disciplines, including civil engineering, aviation planning, architecture, cost estimating, and project management over the duration of the contract (2011-2015). Tasks include preparation of an ALP amendment; hangar feasibility analysis; airspace assessment for new developments; federal and state funding assistance and grant assurances; cargo facility analysis; independent fee reviews; miscellaneous civil engineering improvements; and pavement inspection, strength analysis, and recommendations.

**Naples Municipal Airport Pavement Analysis and Rehabilitation (includes Taxiway Alpha East and Taxiway Alpha West), Naples, FL** — Project engineer. The Naples Airport Authority selected Kimley-Horn as its airfield pavement consultant in March 2008. As our initial assignment, we completed a comprehensive structural analysis of all airfield pavement components, including runways, taxiways, and aircraft parking aprons. A multiyear, staged program of rehabilitation and replacements was recommended and subsequently adopted by the Authority at its November 2008 board meeting. Rehabilitation of all existing pavements is anticipated to cost nearly \$20 million over the next five to six years. Other recommended alternative modifications and airfield improvements would increase that cost by an additional \$8 million. Projects thus far include:

- Runway 5-23 Rehabilitation (Construction)
- Runway 5-23 Threshold Improvements
- Runway 5-23 Rehabilitation (Design)
- Rehabilitation of the General Aviation Ramp
- Rehabilitation of Taxiway Alpha West
- Rehabilitation of Taxiway Alpha East
- Pavement Analysis



## Professional Credentials

- Bachelor of Science, Civil Engineering, University of Florida
- Professional Engineer in Florida, #62478, February 14, 2005

## Special Qualifications

- Staff engineer with over 16 years of experience providing planning, design, and zoning services for various aviation and civil projects.
- Thorough knowledge of Federal Aviation Administration (FAA) standards
- Thorough understanding of Title 14 of the Code of Federal Regulation Part 77 – Safe, Efficient Use, and Preservation of the Navigable Airspace (Part 77)
- Responsible for performing obstruction evaluation and airspace analysis

## Relevant Experience

### Obstruction Evaluation and Airport Airspace Analysis, Various Locations

Provided planning services for the development of tall structures. Modeled airspace above subject sites and evaluated Part 77 surfaces, airport traffic pattern surfaces, and Terminal Instrument Procedure surfaces (TERPs). Determine the most applicable and stringent imaginary surfaces and advised clients regarding limitations on vertical development. Prepared and filed FAA form 7460-1 Notice of Proposed Construction or Alteration and FAA forms 7460-2 Part I and II Notice of Actual Construction or Alteration. A sample of previous projects I provided below:

- **1350 South Ocean, Pompano Beach, FL** — Performed obstruction evaluation and airspace modeling of the subject site to determine vertical development limitations over the property. Modeled Part 77, air traffic patterns, and TERPs surfaces using software similar to that which is used by the FAA. Analyzed subject site's airspace to determine limitations from the City's Air Park Overlay (APO) District zoning ordinance. Prepared a report summarizing findings.
- **1380 South Ocean Blvd, Pompano Beach, FL** — Performed obstruction evaluation and airspace modeling of the subject site to determine vertical development limitations over the property. Modeled Part 77, air traffic patterns, and TERPs surfaces using software similar to that which is used by the FAA. Analyzed subject site's airspace to determine limitations from the City's Air Park Overlay (APO) District zoning ordinance. Reviewed differences between FAA and APO limitations and led discussion with developer and land use attorney. Prepared a report summarizing findings. Prepared presentation for Zoning Board of Appeal meeting discussing differences between FAA standards and City's APO District.
- **1515 Flagler Drive, West Palm Beach, FL** — Performed obstruction evaluation and airspace modeling of the subject site to determine vertical development limitations over the property. Modeled Part 77, air traffic patterns, and TERPs surfaces using software similar to that which is used by the FAA. Prepared a report summarizing findings.
- **3111 South Dixie Highway, West Palm Beach, FL** — Performed obstruction evaluation and airspace modeling of the subject site to determine vertical development limitations over the property. Modeled Part 77, air traffic patterns, and TERPs surfaces using software similar to that which is used by the FAA. Led discussion with developer to review findings and determine their desired development elevation. Prepared a report summarizing findings. Prepared and filed FAA form 7460-1, Notice of Proposed Construction or Alteration. Led discussions with FAA to resolve concerns regarding requested heights. Led efforts for preparing a FAA 1A certification—stating that submitted study data was accurate to a tolerance of 20 FT horizontal and 3 FT vertical. Determination is pending.
- **Proposed Downtown Development, Tampa, FL** — Performed obstruction evaluation and airspace modeling of the subject site to determine vertical development limitations over the property. Modeled Part 77, air traffic patterns, and TERPs surfaces using software similar to that which is used by the FAA. Led discussions with Hillsborough County Airport Authority to gain a better understanding regarding the airspace over downtown Tampa and how it is affected by Tampa International Airport and Peter O. Knight Airport. Led discussion with developer to review findings.
- **West Airport Road, Elko, NV** — Prepared and filed FAA form 7460-1, Notice of Proposed Construction or Alteration for 26 power poles located in close proximity to the Elko Municipal Airport, Elko, NV. Received conditional Determination of No Hazard to Air Navigation from the FAA. Reviewed determinations and led discussion with the client explained, in common terms, the FAA's conditional approval which required obstruction lighting on top of select power poles, spherical markers on select power lines, and supplemental notification to the FAA pre and post construction (FAA forms 7460-2, Part I and II). Prepared exhibit identifying locations of obstruction lighting, spherical markers, and development which required post and pre/post FAA notification.
- **Bionitrogen Plants, Hendry and Taylor Counties, FL** — Performed obstruction evaluation and airspace modeling of the subject sites to determine vertical development limitations over the properties. Modeled Part 77, air traffic patterns, and

TERPs surfaces using software similar to that which is used by the FAA. Led discussion with developer to review findings and determine their desired development elevation. Prepared a report summarizing findings. Prepared and filed FAA form 7460-1, Notice of Proposed Construction or Alteration.

**Broward College, Helistop at the Junior Achievement Huizenga Center for Free Enterprise, Coconut Creek, FL**

Project engineer for the design of a helistop at the Huizenga Center for Free Enterprise on the North Campus of Broward Community College. Services included siting, design, and licensing through the Federal Aviation Administration (FAA) and the Florida Department of Transportation (FDOT).

**Pompano Beach Air Park, Relocation of Taxiway G and RIM Improvements, Pompano Beach, FL — Project engineer.**

Taxiway D is the only parallel taxiway serving primary Runway 15-33. Its current layout violates several Advisory Circular minimum separation rules and contains several 'hot spots' identified by the FAA. The City of Pompano Beach selected Kimley-Horn to relocate Taxiway G to an acceptable separation from the runway and correct dangerous taxiway intersection geometries. Kimley-Horn provided design, bidding, site development, and construction phase services for the project. Tasks include burrowing owl and gopher tortoise site surveys, development of plans, permitting assistance, and bid assistance. Kimley-Horn leveraged its knowledge of the Air Park's master plan and operation patterns to minimize closure duration of the primary runway while keeping the overall construction duration to a minimum. As part of the project, Kimley-Horn updated the airfield's signage and lighting to meet Engineering Brief No. 89 standards while allowing for the addition of two future taxiway connectors.

**Fort Lauderdale Executive Airport (FXE) General Engineering Consultant, Fort Lauderdale, FL — Staff engineer for the construction phase services for the airfield-wide rehabilitation of airside signage, lighting, and electrical services for Runway 8/26 rehabilitation.** Project included replacing the airfield lighting main vault electrical service for normal and emergency power systems, and milling and overlaying of the main runway and restoring it back to design capacity. The design process included review of multiple phasing options to determine how best to complete construction with a minimum impact to tenants and airport users. Meetings were held with area contractors to validate the phasing options and tenants and other stakeholders to determine which would cause the least disruption.

**Fort Lauderdale Executive Airport (FXE) Runway 8-26 Rehabilitation and Taxiway Hotel Relocation, Fort Lauderdale, FL — Project engineer for the design and construction phase services for the rehabilitation of Runway 8-26 and the relocation of Taxiway Hotel.** The project was initiated with a stakeholder meeting to determine the preferred sequence of construction. The decision was made to shut down the runway for a 10-day period to allow construction to be completed in the shortest amount of time possible. The project included the rehabilitation of the entire runway, construction of new blast pads at both ends, and relocation of portions of Taxiway Hotel to straighten the alignment.

**Fort Lauderdale Executive Airport (FXE) Taxiway Charlie and Delta Rehabilitation, Fort Lauderdale, FL — Project engineer.** Taxiways Charlie, Delta and their connectors were showing severe signs of longitudinal and transverse cracking, depressions, and weathering. Kimley-Horn was retained to provide design services for the rehabilitation of 1,985 linear feet of Taxiway Charlie and 1,620 linear feet of Taxiway Delta. The project consisted of milling and overlaying existing bituminous pavements, grade correction, striping, and replacing all edge lighting with LED lights. Careful construction phasing was also required as access to fixed base operator ramps and the Customs ramp needed to be maintained during daylight hours. Construction was completed in 2013.

**Miami International Airport (MIA) AOA Security Fencing, Miami, FL — Project engineer for airport perimeter and airfield security design services contract.** Provided roadway design for a 2,625-foot perimeter security circulation road, drainage design, and security fencing design services to incorporate MIA's fuel storage facility into the Air Operations Area. Designed K-12 barricades to protect key airfield entrances from being breached by errant vehicles. Led construction phase services and contract administration.

**Miami International Airport Park One Garage Condition Assessment and Modifications, Miami, FL — Project engineer responsible for modifications to Miami Airport's Park One Garage.** Kimley-Horn's scope included structural design and repairs, bridge demolition plans, parking layout and revenue control modification assistance, and bid and construction phase services. Led construction phase services and contract administration.

**Opa-locka Executive Airport (OPF), Air Traffic Control Tower (ATCT), Opa-locka, FL — Project manager and lead engineer responsible for the design of a 220-foot aboveground air traffic control tower and an auxiliary 2,980-square foot base building at the Opa-locka Executive Airport.** Led a team of consultants consisting of civil engineers, architects, structural engineers, mechanical engineers, electrical engineers, and communications specialist. Provided design and permitting services for asphalt, drainage, utility, and security project components. Led construction phase services and contract administration for this \$11,000,000 project.

## Professional Credentials

- Bachelor of Science, Civil Engineering, California State Polytechnic University, Pomona, 2008
- Professional Engineer in Florida, #74129, January 26, 2012
- Member: American Society of Civil Engineers (ASCE), Florida Engineering Society, and Urban Land Institute

## Special Qualifications

- Has 10 years of experience in the design, coordination, and production of detailed engineering documentation, plans, and specifications per the Federal Aviation Administration (FAA) guidelines and requirements for FAA AIP/ARRA projects
- Design experience includes general aviation and commercial service airports involving pavement rehabilitation, runway, taxiway, and apron design projects
- Professional working knowledge of the following software packages: AutoCAD Civil 3D 2016 (with Hydraflow extensions), Transoft Solutions AviPLAN, Streamline Technologies, Inc. ICPR, FAARFIELD (Pavement Design), U.S. Army Corps of Engineers PAVER (Pavement Condition Index and M & R Planning), ArcMap and ArcPad GIS Applications
- Professional working knowledge of project coordination software; Bentley ProjectWise, BlueBeam Revu, and Autodesk Navisworks for Building Information Model (BIM) integration.
- Participated in the Florida Department of Transportation Aviation Office Airfield Pavement Inspection Training Course through the FDOT Statewide Airfield Pavement Management Program - Certification obtained
- Speaker at the FAA National Association of Statewide Airport Officials (NASAO) PAVEAIR User's and Pavement Management Group

## Relevant Experience

**Orlando International Airport South Terminal Complex Phase 1 Airfield Civil, Orlando, FL (Ongoing)** — Project engineer. Greater Orlando Aviation Authority is currently expanding its airfield terminal facilities as part of its South Terminal Complex Program; Phase 1 consists of the development of an Airside Concourse, Landside Terminal, Parking Garage, Ground Transportation Facility, Ground Service Equipment Facilities, Central Energy Facilities, and an expansion of their Airfield facilities with nearly 3.5 million square feet of apron, taxiway, and taxilane infrastructure. Kimley-Horn, as Prime Consultant for the Airfield Civil elements, led design efforts for airfield geometry in consideration of AC 150/5300-13A, Change 1 and Runway Incursion Mitigation, pavement design for a 20-year and 40-year pavement life, airfield lighting and signage, fuel system improvements, and performed the stormwater drainage management and permit analysis. Project elements consist of construction documentation, FAA specifications, construction phasing, and development of opinion of probable construction costs. Airfield improvements consist of nearly 400,000 SY of P-501 Portland Cement Concrete and nearly 1 million cubic yards of earthwork grading.

**Fort Lauderdale Executive Airport (FXE) Aviation Equipment and Service Facility, Fort Lauderdale, FL** — Civil engineering analyst. Fort Lauderdale Executive Airport (FXE) actively looks for opportunities to be environmentally responsible. When the decision was made to construct a new Aviation Equipment and Service Facility, the airport decided to apply for LEED® certification for the 7,421 square foot building on a 2.1 acre site. Kimley-Horn has provided design services for the site civil elements of the project. This included pavement design to minimize heat island effect and stormwater system that reduces impervious cover, promotes infiltration, and captures and treats the stormwater runoff from 100% of the average annual rainfall using acceptable Best Management Practices (BMPs). The project's BMPs are capable of removing 80% of the total suspended solids (TSS) from the average annual post-development runoff. The project is now in construction and Kimley-Horn is providing construction phase services.

**Design of the U.S. Customs and Border Protection Facility at Fort Lauderdale Executive Airport (FXE), Broward County, FL** — Civil engineer analyst. Performed site civil engineering design and local government permitting for facility to be used by the Department of Homeland Security. Efforts include the design of a new ramp pavement facility capable of supporting Gulfstream V aircraft loads. Addressed stormwater management requirements in conjunction LEED® credit criteria.

**Design for Relocation of Taxiway Golf, Fort Lauderdale Executive Airport, Fort Lauderdale, FL** — Civil engineer analyst. Kimley-Horn provided professional engineering services for design of a relocated Taxiway Golf to include demolition of the existing taxiway; grading and drainage; paving of the new taxiway; pavement markings; lighting and signage; turfing; and associated work. In adherence to FAA Advisory Circulars for runway safety requirements.

**Fort Lauderdale Executive Airport (FXE) Taxiway Bravo Pavement Rehabilitation, Fort Lauderdale, FL** — Project engineer for the Kimley-Horn team that provided design services, including pavement structural design and evaluation, plans preparation, cost estimates, technical specifications, engineers report, and bid phase services for this project. Taxiway Bravo is a 4,950-foot-long and 50-foot-wide taxiway parallel to Runway 13-31. The project consisted of the pavement rehabilitation of Taxiway Bravo and the pavement widening of the taxiway connectors up to FAA design standards.

**Fort Lauderdale Executive Airport (FXE) Taxiway Charlie and Delta Rehabilitation, Fort Lauderdale, FL** — Project engineer. Taxiways Charlie, Delta and their connectors were showing severe signs of longitudinal and transverse cracking, depressions, and weathering. Kimley-Horn was retained to provide design services for the rehabilitation of 1,985 linear feet of Taxiway Charlie and 1,620 linear feet of Taxiway Delta. The project consisted of milling and overlaying existing bituminous pavements, grade correction, striping, and replacing all edge lighting with LED lights. Careful construction phasing was also required as access to fixed base operator ramps and the Customs ramp needed to be maintained during daylight hours. Construction commenced in the summer of 2012 and is on time with no change orders.

**Opa-locka Executive Airport (OPF), Air Traffic Control Tower (ATCT), Opa-locka, FL** — Civil engineer analyst. Performed site civil services at the Opa-locka Executive Airport for the Air Traffic Control Tower development. Project efforts consisted of preparing construction documents and specifications for paving, grading, drainage, pavement marking, and perimeter fence facilities. Kimley-Horn was subconsultant to Leo A. Daly for this project for the Miami-Dade Aviation Department.

**Airport Pavement Management System for Tallahassee Regional Airport, Tallahassee, FL** — Civil engineer analyst/task manager. Developed the network definition layout for the entire airport's pavement facilities for both airside and landside features. Performed pavement condition index (PCI) surveys of entire airport and coordinated group inspections. Developed a comprehensive document detailing ongoing maintenance and rehabilitation policies in coordination with airport operations staff. Developed an \$85.4 million dollar capital improvement plan projects list for budgeting purposes and adherence to FAA funding requirements.

**FDOT Aviation and Spaceport Office Statewide Airfield Pavement Management Program - System Update, FL** Project manager. Kimley-Horn has performed pavement inspections in accordance with the ASTM D 5340 Standard Test Method for Airport Pavement Condition Index Surveys, FAA Advisory Circular 150/5380-7A Airport Pavement Management, and FAA Advisory Circular 150/5380-6B Guidelines and Procedures for Maintenance of Airport Pavements. The program consists of 96 participating public airport facilities and the performance of condition analysis; 10-year performance modeling, 10-year major rehabilitation planning, and maintenance recommendations using MicroPAVER. The program also consists of the evaluation of the FAA PAVEAIR web-based application for pavement management on select airports. The program also consisted of the development of GIS-based and GPS enabled navigation maps for tablet data collection implementation. The program included annual training courses on PCI inspection survey and repair training. Served as an instructor for the airfield distress inspection course. The program has identified \$2.52 billion dollars of capital improvement projects that has been integrated with the Joint Automated Capital Improvement Program for project planning and budgeting.

**FDOT Statewide Airfield Pavement Management Program – Airfield Inspection and Distress Repair Training Courses, Orlando, FL** — Instructor. As part of the FDOT Statewide Airfield Pavement Management Program, Kimley-Horn developed curriculum, presentation, material, and instruction for two training modules: Airfield Distress Inspection Survey and Airfield Distress Repair. Each module consists of in-class training on the principles and methodologies; and followed by a field day demonstration on airfield pavements. Each course is comprised of lecture presentation, handout materials, reference manuals, interactive Q&A, and course examination.

**FDOT Aviation Office Consultant Contract, Statewide, FL** — Team leader and task manager. Kimley-Horn performed as lead consultant to FDOT in the update of the Statewide Airport Pavement Management Program (SAPMP). Duties included personal inspection of public airfield facilities throughout the seven FDOT districts in accordance with ASTM 5340 standard and the Federal Aviation Administration Advisory Circular 150/5380-6B. Continued the implementation and advancement of the USACE MicroPAVER to perform condition analysis, future pavement performance, and major maintenance/rehabilitation (M&R) for the statewide airports. Developed detailed capital improvement budget plans for each airport assessed as well as developed pavement network definition maps using GIS and GPS applications for field navigation. Determined specific pavement rehabilitation policies and performed a cost analysis for major construction projects. Developed a comprehensive set of FDOT specific pavement performance prediction curves based off cumulative historic construction and inspection data for airports in the state of Florida.



## Professional Credentials

- Bachelor of Science, Civil Engineering, University of Central Florida, 1994
- Professional Engineer in Florida, #54055, February 12, 1999
- Member: American Society of Civil Engineers (ASCE)

## Special Qualifications

- Has 22 years of experience in drainage/stormwater engineering and project management for private and public land development, including utilities, site layout, grading, and permitting
- Extensive knowledge of permitting through various review agencies across Florida, including the Florida Department of Environmental Protection and Florida Department of Transportation
- Water resources skill set includes: wastewater pump stations, horizontal directional drilling, areawide hydraulic modeling, wastewater force mains, finished water mains, wastewater pipeline rehabilitation, utility master planning, reuse distribution and storage, construction phase services, system startup services, stormwater master planning, floodplain management, water quality design, GIS, ICPR modeling, community rating system, MODRET, and stormwater compliance

## Relevant Experience

**Orlando International Airport (OIA) Continuing Civil Engineering Services, Orlando, FL** — Project manager. Since 2008, Kimley-Horn has been serving the Greater Orlando Aviation Authority (GOAA) as one of their continuing civil engineering prime consultants. Through this contract, we have developed strong relationships with GOAA staff, knowledge of GOAA's policies and procedures, and a thorough understanding of OIA's operations and safety requirements. Projects under this contract have included: BP-430: Runway 18L-36 R Joint Rehabilitation; BP-433: Runway 17L-35R Joint Repairs; BP-436: Intrusion Detection System for Airsides 1 and 3; and H-192 West Airfield Pavement Repairs.

**Orlando International Airport, BP-433: Runway 17L/35R Joint Repairs, Orlando, FL** — Project engineer for the Kimley-Horn team that provided pavement distress survey and rehabilitation design for the rehabilitation of all joints (from preformed to silicone) on the 9,000 foot long Runway 17L-35R. The repairs consisted of re-sealing concrete pavement joints, removing and replacing full-strength runway concrete pavement, and airfield lights as necessary. Kimley-Horn also worked with GOAA Airfield Operations staff to replace pavement markings on OIA's 17R complex.

**Daytona Beach International Airport General Consulting Services, Daytona Beach, FL** — Project engineer. Kimley-Horn was selected to provide on-call services on an as-needed basis to the County of Volusia and Daytona Beach International Airport staff. These services will be provided across all disciplines, including civil engineering, aviation planning, architecture, cost estimating, and project management over the duration of the contract (2011-2015). Tasks include preparation of an ALP amendment; hangar feasibility analysis; airspace assessment for new developments; federal and state funding assistance and grant assurances; cargo facility analysis; independent fee reviews; miscellaneous civil engineering improvements; and pavement inspection, strength analysis, and recommendations.

**Daytona Beach International Airport (DAB) Tree Mitigation Project, Daytona Beach, FL** — Stormwater engineer. Kimley-Horn assisted DBIA in implementing the recommendation in their Wildlife Hazard Management Plan to remove the trees and wetland areas on parcels immediately adjacent Runway 16/34. This included wetland delineation, permitting and mitigation coordination; gopher tortoise survey, permitting and relocation; evaluation of the existing closed landfill and preparation of a plan to avoid disturbance to the landfill; preparation of clearing and grading plans, stormwater modeling and design, access and safety plans; preparation of the Construction Safety and Phasing Plan per FAA AC 150/5370-2F; permitting; assistance with the bidding the project and preparation of the documented Categorical Exclusion for submittal to FAA. Total construction cost: \$2.06 million.

**Mills Park - Retail South Block Design, Orlando, FL** — Project manager for the Kimley-Horn team that is providing civil engineering services for the design of the Mills Park (South Block Retail) site in Orlando. The proposed project will be a 65,000-square-foot multi-use development located on 14.2± acres at the northwest corner of US 17/92 and Virginia Avenue. Our services will consist of preparation of a master stormwater plan; permitting through the St. Johns River Water Management District (environmental resource permit); utility engineering; final engineering plans preparation; retail permitting through the City of Orlando (plan review), Florida Department of Environmental Protection (sanitary sewer collection/transmission, water distribution, NPDES), and Florida Department of Transportation (drainage, driveway, utility); and construction administration.

**Orangewood Commercial Development, Orange County, FL** — Project manager for the Kimley-Horn team providing civil engineering services for this 15.31-acre multi-use commercial site located on International Drive and Central Florida Parkway in Orlando. The Orangewood Development includes a 5,600-square-foot gas station and associated parking, dry pond, and six outparcels. Tasks include preliminary site, building, and utility coordination. Final tasks include construction drawings and construction phase services. Permitting agencies consist of Orange County, FDEP, Valencia Water Control District, and South Florida Water Management District.

**Greater Orlando Aviation Authority (GOAA), Cargo Road Loop Taper Improvements, Orlando, FL** — Prior to joining Kimley-Horn, served as project manager of stormwater and environmental permitting. Designed the stormwater management system, roadway storm sewer, and provided roadway support for the grade-separated interchange. Permits were obtained from GOAA, the South Florida Water Management District, and the City of Orlando.

**Greater Orlando Aviation Authority (GOAA), Heintzelman Boulevard, Orlando, FL** — Prior to joining Kimley-Horn, served as project as project manager for all environmental permitting and stormwater management design for the 6-mile roadway which included a 2,000-foot bridge through an existing wetland conservation area. Also responsible for coordination between various local and state agencies concerning all aspects of the drainage design and wetland permitting, including mitigation requirements. This project included the GOAA in-house review, the City of Orlando, the South Florida Water Management District, the U.S. Army Corps of Engineers, and the Florida Department of Environmental Protection.

**Greater Orlando Aviation Authority (GOAA), South Terminal Complex Infrastructure, Orlando, FL** — Prior to joining Kimley-Horn, served as project engineer responsible for site design and layout, site grading, and master drainage design for the 2,722-acre drainage basin. Project manager for the production of drainage-related construction plans and bidding documents. Also responsible for coordination between the various local and state agencies concerning all aspects of the drainage design and wetland permitting, including mitigation requirements. This project included the GOAA in-house review, City of Orlando, South Florida Water Management District, U.S. Army Corps of Engineers, and the Florida Department of Environmental Protection.

**BJ's Wholesale Club Distribution Center, Jacksonville, FL** — Project manager responsible for preparing the design and obtaining permits for the master stormwater management system on this 157-acre site located in northwest Jacksonville. Also provided site engineering, paving and grading design, water and wastewater systems design, parking design, and construction phase services. This project was permitted through the City of Jacksonville, the Jacksonville Electric Authority, and the St. Johns River Water Management District.

**Williamson Business Park (f/k/a Port Orange Business Park), Port Orange, FL** — Project manager for this project consisting of a 74.12-acre industrial development located at the intersection of Williamson Boulevard and McGinnis Road. The project consisted of the extension of McGinnis Road and the widening of Williamson Boulevard that included auxiliary lanes, mass grading of the site, master drainage system, and master utility system serving the project, as well as neighboring developments.

**Shadow Wood PD, Orlando, FL** — Project manager. Kimley-Horn is providing civil engineering services for a 4.01-acre± commercial development located at the northeast corner of International Drive and Central Florida Parkway in Orange County. Our original contract was for Parcels D and E which consists of proposed sites for Buffalo Wild Wings (Parcel D) and Panera Bread (Parcel E). Kimley-Horn's scope included preparation of site plans, development plans, and engineering plans (including paving, grading, drainage, utilities, and landscape/irrigation); permitting through Orange County, South Florida Water Management District, Florida Department of Environmental Protection, and Valencia Water Control District; and construction administration. In addition, our team has now been retained to provide design services for a retail building for Parcel F.

**Lee Vista Commerce Park, Orlando, FL** — Project engineer on the Kimley-Horn team responsible for project planning and site civil engineering services necessary to design and permit the entire project through the jurisdictional agencies. Design and permitting included site layout, paving, grading, drainage (collection and stormwater management), and utilities. Once completed, Lee Vista Commerce Park will contain seven buildings, including three office buildings and four warehouse buildings totaling 868,125 square feet with associated parking and drive aisles. Additionally, a two-lane road will be constructed to connect the site with Lee Vista Boulevard to the north.

## Professional Credentials

- Master of Engineering, Civil Engineering, University of Florida, 2013
- Bachelor of Science, Civil Engineering, University of Florida, 2012
- Engineering Intern in Florida
- Member: American Society of Civil Engineers (ASCE)

## Special Qualifications

- Experience in project design, construction administration, and pavement management implementation
- Has performed airfield pavement evaluation pavement condition index (PCI) surveys and analysis at more than 40 public use airports
- Received Level II Advance Training Certification from the Colorado State University PAVER Center
- Florida Department of Transportation certified for airfield inspection training
- Has successfully lead field investigations at both commercial and general aviation airports as part of the FDOT statewide airfield pavement management program
- Computer software experience includes AutoCad Civil 3D, ICPR, PAVER (Pavement Condition Index and M & R Planning), ArcMap and ArcPad GIS Applications

## Relevant Experience

**Fort Lauderdale-Hollywood International Airport (FLL), Terminal 4 Expansion, Fort Lauderdale, FL** — Project engineer for the Kimley-Horn team for the replacement of Terminal 4 at Fort Lauderdale-Hollywood International Airport (FLL), which is a phased program to replace the existing Concourse H. The existing Concourse aircraft parking configuration has significant conflicts with the new Runway 9R-27L and the new program will resolve these issues. The program, when complete, will consist of 14 gates that replace the existing 10 gate Concourse H. The new facilities will provide more concessions, passenger amenities, and be a more environmentally-friendly facility than the existing Concourse. Once completed, the project will be the most modern building at the airport.

The initial phase of the program will be the western expansion. The foundation package is complete and in permitting. Construction is anticipated to begin in early March 2013; Kimley-Horn's role in the program is civil engineering related and includes relocated all utilities within the building footprint. The second phase of the project, the Eastern Expansion, is entering the design phase and design should be complete by the end of 2015. The complete Terminal 4 program is estimated at nearly \$500 million and estimated to be complete by the end of 2015. Total project cost: \$500 million (estimated construction).

**Fort Lauderdale-Hollywood International Airport, Rehabilitation of North Airfield Pavements, Engineered Material Arresting System Beds, and RIM, Broward County, FL** — Project engineer. The Broward County Aviation Department (BCAD) has selected Kimley-Horn to provide professional engineering services associated with the rehabilitation of Runway 10L/28R and other airfield pavements at Fort Lauderdale-Hollywood International Airport (FLL). This Capital Improvement Project will enable BCAD to maintain the primary runway and other airfield pavements in good operational condition.

**Fort Lauderdale Executive Airport (FXE) Taxiway Echo Pavement Evaluation and Rehabilitation, Fort Lauderdale, FL** — Project analyst for the Kimley-Horn team that provided design services, including pavement structural design and evaluation, plans preparation, cost estimates, technical specifications, engineers report, and bid phase services for this project. Taxiway Echo is 6,200 feet long and 50-feet wide serving as the secondary parallel to primary Runway 8-26. The project consisted of geotechnical investigations of Taxiway Bravo and the

pavement widening of the taxiway connectors up to FAA design standards.

## **FDOT Aviation and Spaceport Office Statewide Airfield Pavement Management Program - System Update, FL**

Analyst. Kimley-Horn performed as lead consultant to FDOT in the update of the Statewide Airport Pavement Management Program (SAPMP) for the past four years. Duties included personal inspection of 96 public airfield facilities throughout the seven FDOT districts in accordance with ASTM 5340 standard and the Federal Aviation Administration Advisory Circular 150/5380-6B. Continued the implementation of the MicroPAVER to perform condition analysis, future pavement performance, and major maintenance/rehabilitation (M&R) for the statewide airports. Developed pavement network definition maps using GIS and GPS applications for field navigation. Part of the team for the evaluation of FAA's PAVEAIR web-based application for pavement management for this system update. Performed system inventory updates, work history updates, and condition analysis on multiple airports utilizing PAVEAIR. The resulting data was used for the development of interactive maps.

**FDOT Statewide Airfield Pavement Management Program – Airfield Inspection and Distress Repair Training Courses, Orlando, FL** — Analyst. As part of the FDOT Statewide Airfield Pavement Management Program, Kimley-Horn developed curriculum, presentation, material, and instruction for two training modules: Airfield Distress Inspection Survey and Airfield Distress Repair. Each module consists of in-class training on the principles and methodologies; and followed by a field

day demonstration on airfield pavements. Each course is comprised of lecture presentation, handout materials, reference manuals, interactive Q&A, and course examination.

**Greater Orlando Aviation Authority, Loop Road Pavement Condition Assessment at Orlando International Airport, Orlando, FL** — Analyst. Kimley-Horn conducted a Pavement condition assessment of 21-lane miles of the Loop Road at Orlando International Airport. This Pavement Assessment utilized Semi-Automatic Pavement Condition Survey Technology system, GIS integration, and MicroPaver Pavement Management Software. Tasks associated with the project included pavement condition analysis, maintenance and rehabilitation recommendations, conceptual phasing documents, conceptual level opinion of probable cost and conceptual pavement design. Pavement design and development of opinion of probable costs using the Florida Department of Transportation Flexible Pavement Design Manual and Specifications.

**Metropolitan Nashville Airport Authority, Nashville International Airport Pavement Management System, Nashville, TN** — Integrated the work history as part of the update to the pavement network definition; and he integrated the information into an intelligent GIS navigation map for GPS enabled tablets. Also performed airfield PCI inspections.

**Dallas Love Field Airfield Pavement Evaluation, Dallas, TX** — Analyst. Kimley-Horn is updating an existing airfield PMMS for DAL's airside pavements. The project includes a thorough review of existing as-builts since the previous pavement management update, network definition update, pavement condition index surveys, nondestructive testing (NDT) with a falling weight deflectometer on the entire airfield, geotechnical investigations, current and predicted Pavement Condition Index (PCI) values, structural evaluation to determine pavement classification number (PCN) values and structural remaining life, CIP development, GIS Integration, development of an interactive tool to integrate the pavement management system into the airport's work order system, and reporting and numerous meetings with the FAA and the Airport to develop a five- and 10-year maintenance improvement plan. Additional tasks included the determination of allowable aircraft loadings, development of a fleet mix and forecast of operations along with the routing of the fleet, life cycle options, updating the MicroPAVER database with GIS integration, development of a phased major maintenance and rehabilitation/reconstruction plan, and a presentation of the final result to the Airport.

**Aerostar, Runway 8/26 Rehabilitation at San Juan Luis Munoz Marin International Airport, San Juan, PR** — Analyst. Kimley-Horn provided design of the pavement rehabilitation of Runway 8/26 and associated taxiway connectors. The project consisted of the rehabilitation of the center 9,300 feet of Runway 8/26, the taxiway connectors, and electrical work. The project included the mill and overlay of asphalt pavement on the runway and concrete rehabilitation work on the taxiway connectors as well as associated lighting and electrical work, pavement markings, grading, phasing as well as cost estimates, technical specifications and bidding assistance.

**Pavement Management System Update for City of Miramar Roadway Resurfacing Program, Miramar, FL** — Project analyst. Kimley-Horn was retained by the City of Miramar to update the City's Roadway Resurfacing Program. The program consists of a network level evaluation of pavements, comprising of the development of pavement inventory, roadway network definition, pavement condition surveys of approximately 195 centerline miles of roadway pavement, development of a PAVER pavement management database, development of list of capital needs to allow budgeting for the City's roadway resurfacing program.

**Pavement Management System 2015 – Initial Data Collection, City of Industry, CA** — Team leader responsible for development of a pavement system inventory database using MicroPAVER. Successfully led two PCI inspection teams in an uncontrolled area while safely avoiding a high volume of traffic. Also analyzed the current PCI values, distress mechanisms, and typical traffic loading to determine preliminary M&R planning recommendations. This project was performed on a compressed schedule to meet funding compliance requirements per the Los Angeles County Metropolitan Transportation Authority's (LA Metro) Proposition C Requirements. Kimley-Horn performed pavement condition index (PCI) survey data collection for the purpose of calculating PCI values and rating for select roadway segments within the City of Industry. The data collection of roadway distresses and calculation of PCI data was performed in accordance with the ASTM D 6433-11 Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys. The project included determination for the need of a Pavement Asset Maintenance and Management System (PAMMS) Program.

**United States Coast Guard Air Station Clearwater Pavement Asset Maintenance and Management System (PAMMS)** Task manager. Kimley-Horn was contracted to develop a Pavement Asset Maintenance and Management System (PAMMS) for USCG Air Station Clearwater landside pavement facilities. The PAMMS included identifying a system inventory and network definition from record documents, establish a current PCI condition, estimated 10-year PCI values, and develop a plan for immediate maintenance needs. Approximately 500,000 square feet of USCG maintained landside pavements were inspected using the procedures as identified by the ASTM D 6433-11 Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys. James participated in the field PCI data collection, CADD and GIS exhibit development, record document research, and PAVER database development.



## Professional Credentials

- Bachelor of Science, Civil Engineering, University of Wisconsin-Platteville, 2013
- Engineer-in-Training in Wisconsin, 1512348-500, March 6, 2014

## Special Qualifications

- Software experience AutoCAD, AutoCAD Civil 3D, and intro to AutoCAD Revit
- FDOT certified in airfield inspection training
- Has performed airfield pavement evaluation pavement condition index (PCI) surveys and analysis at more than 60 public-use airports
- Has successfully led field investigations at both commercial and general aviation airports as part of the FDOT statewide airfield pavement management program and South Carolina Pavement Management Study
- Software experience includes PAVER (Pavement Condition Index and M & R Planning), AutoCAD, AutoCAD Civil 3D, AutoCAD Revit, and ArcMap and ArcPad GIS Applications

## Relevant Experience

### **Pompano Beach Air Park, Taxiway D Relocation, Pompano Beach, FL**

Project analyst. Kimley-Horn was retained by Pompano Beach to provide design, bidding, site development, and construction phase services for the relocation of Taxiway Delta. Tasks will include burrowing owl and gopher tortoise site surveys, development of plans, permitting assistance, and bid assistance.

### **General Engineering Consultant and Project Specific Consultant- Southwest Florida International Airport (RSW), Fort Myers, FL — Project analyst.**

Kimley-Horn was selected in 2011 as one of the Authorities General Consultants serving Southwest Florida International Airport (RSW) and Page Field (FMY). Over the first two years of the agreement, Kimley-Horn has been assigned a variety of tasks in support of apron expansion and airfield improvements at the Airport. A representation of the tasks assigned to date include Mitigation Park Evaluation Report, Checkpoint Evaluation, Parcel Development Evaluation, Runway 6-24 Pavement Classification, and Federal Tiger Grant Application Assistance.

### **FDOT Aviation and Spaceport Office Statewide Airfield Pavement Management Program - System Update, FL — Analyst.**

Kimley-Horn performed as lead consultant to the FDOT in the update of the statewide airfield pavement management program for the past four years. Duties included personal inspection of 96 public airfield facilities throughout the seven FDOT districts in accordance with ASTM 5340 and the Federal Aviation Administration Advisory Circular 150/5380-6C. Utilized USACE MicroPAVER to perform condition analysis, future pavement performance, and major maintenance/rehabilitation (M&R) for the statewide airports. Developed detailed capital improvement budget plans for each airport assessed. Developed pavement network definition maps utilizing GIS and GPS applications for field navigation. Developed pavement rehabilitation policies and performed a cost analysis for major construction projects. Developed pavement performance prediction curves based off cumulative historic construction and inspection data for airports in the State of Florida. Development of multiple

and statewide airport capital improvement project plans on the magnitude of \$2.52 billion dollars. Also supported the FDOT, Aviation Office Airfield Pavement Inspection Training Program as an instructor and in the preparation of training seminars on the pavement inspections for airport personnel in the State of Florida including operations personnel, airport engineers, airport consultants, and personnel from the FAA Orlando Aviation District Office.

**FDOT Statewide Airfield Pavement Management Program – Airfield Inspection and Distress Repair Training Courses, Orlando, FL —** As part of the FDOT Statewide Airfield Pavement Management Program, Kimley-Horn developed curriculum, presentation, material, and instruction for two training modules: Airfield Distress Inspection Survey and Airfield Distress Repair. Each module consists of in-class training on the principles and methodologies; and followed by a field day demonstration on airfield pavements. Each course is comprised of lecture presentation, handout materials, reference manuals, interactive Q&A, and course examination.

**Greater Orlando Aviation Authority, Motor Pool Maintenance Facility Pavement Assessment at Orlando International Airport, Orlando, FL —** Analyst/task manager. Kimley-Horn completed a pavement assessment on the Motor Pool Maintenance Facility in August of 2014. The on-site inspection consisted of a pavement condition index (PCI) inspection and an observation of vehicle inventory at the time of the survey on the approximately 3.5-acre site. Tasks for this project included pavement condition analysis, maintenance and rehabilitation recommendations, conceptual pavement design and opinion of probable cost. Pavement design and development of opinion of probable costs using the Florida Department of Transportation Flexible Pavement Design Manual and Specifications.

**South Carolina Pavement Management Study, SC —** Project analyst. Kimley-Horn is serving the South Carolina Aeronautics Commission (SCAC) for their airport pavement management system (APMS). The general scope of work is to collect data and conduct condition surveys to update their existing APMS for the State of South Carolina. The evaluation is to include all airside pavements (runways, taxiways, taxilanes, aprons, and tiedowns) at South Carolina airports. Our team

will conduct a system inventory, conditions assessment of the pavement, data analysis, and development of a pavement maintenance and rehabilitation recommendations Kimley-Horn previously worked with SCAC in 2002 on an earlier APMS update.

**United States Coast Guard Airfield Pavement Evaluation & Study** — Field Engineer. Kimley-Horn was part of a team contracted to develop a pilot program for the USCG to assess the condition of the USCG Airfield Pavements and develop accurate pavement inventories and identify necessary maintenance, repair, rehabilitation, and reconstruction projects for multiple USCG aviation facilities in support of a future USCG Aviation Pavement Maintenance Management Program. The program includes record documentation review, network definition development, MicroPAVER database implementation, database calibration, pavement condition survey and FOD Index characterization, pavement engineering assessment, airfield asset evaluation, identification of maintenance, rehabilitation and reconstruction needs, and site specific budget analysis. Kimley-Horn inspected and developed Engineering Assessment reports for Air Station's Clearwater, Miami, and Borinquen (Puerto Rico).

**City of Coral Springs, Fire Station 80 Visual Pavement Assessment, Coral Springs, FL** — Analyst. Kimley-Horn was contracted to conduct a visual pavement assessment to identify deficiencies as they pertain to the visible surface pavement distresses on the Fire Station 80 site Portland Cement Concrete Pavement facilities. The project consisted of a review of existing design documentation, material testing information, and visual condition to provide an opinion as to the type and severity of existing pavement distresses in accordance with ASTM D 6433-11 Standard Practice for Roads and Parking Lots Pavement Condition Index Survey. Pavement design and development of opinion of probable costs using the Florida Department of Transportation Rigid Pavement Design Manual and Specifications.

**City of Agoura Hills Citywide Pavement Management System Update** — Analyst. Kimley-Horn performed the program update for the City of Agoura Hills which consisted of pavement condition assessment of 70-lane miles, condition analysis, 7-year performance modelling, and roadway resurfacing work planning for the next 7-years. Paul's specific role included distress data analysis, PCI calculation, work program planning, and bid tabulation analysis. Paul participated in the GIS geodatabase updating and in the database updates using MicroPAVER.

**City of Tamarac Pavement Asset and Maintenance Management System, Tamarac, FL** — Analyst. Kimley-Horn performed the program development for the City of Tamarac which consisted of pavement condition assessment of 137 lane miles, condition analysis, performance modelling, and roadway resurfacing work recommendation. Paul's specific role included distress data analysis, PCI calculation, work program planning, and bid tabulation analysis. Paul participated in the CAD exhibit development and in the database updates using MicroPAVER.

# Julia M. Focaracci, E.I.

Engineering; FAA and Airspace Issues

## Professional Credentials

- Bachelor of Science, Civil Engineering, University of Florida, 2013
- Registered Engineering Intern in Florida, 1100017656, August 6, 2013
- Member: American Society of Civil Engineers (ASCE)

## Special Qualifications

- Software experience includes AutoCAD
- Completed FDOT Airport Pavement Management Training (2014)

## Relevant Experience

### **Pompano Beach Air Park, Taxiway D Relocation, Pompano Beach, FL**

Project analyst. Kimley-Horn was retained by Pompano Beach to provide design, bidding, site development, and construction phase services for the relocation of Taxiway Delta. Tasks will include burrowing owl and gopher tortoise site surveys, development of plans, permitting assistance, and bid assistance.

### **Goodyear Hangar Expansion at the Pompano Beach Air Park, Pompano Beach, FL**

Project analyst. The project included adjusting the landside parking/drive to accommodate new support equipment, increasing the airside mooring circle to accommodate the new Airship, increasing the size of the maneuvering apron to accommodate the new Airship, and regrading the area south of the building to alleviate flooding.

**Various Airspace Study Checklist and FAA Form 7460 Reviews and Submittals, Pompano Beach, FL** — Project analyst. Working with the City of Pompano Beach, Kimley-Horn has been able to obtain airspace approval for ball field lighting in the community park, a new maintenance facility located on the airfield and have worked with developers intending to build facilities at the Air Park and throughout the City of Pompano Beach.

**Sheltair Northside FBO at Fort Lauderdale Executive Airport (FXE), Fort Lauderdale, FL** — Project analyst. Kimley-Horn is working with Sheltair to develop a fixed base operator (FBO) on the north side of FXE. We are preparing construction drawings for site improvements that include hangar and office space and taxiway relocation. Kimley-Horn is assisting the architect for processing the site plan by providing conceptual engineering drawings identified in the scope of work.

**Fort Lauderdale-Hollywood International Airport, Terminal 4 FIS Expansion** — Project analyst. The expansion of the federal inspection services (FIS) at Terminal 4 will provide a new baggage handling facility and interior renovations of the existing re-check facility, passenger restrooms, and baggage carousels. Kimley-Horn is providing construction drawings, permitting assistance, and construction phase services.

**Fort Lauderdale-Hollywood International Airport (FLL) Jetscape FBO Development, Broward County, FL** — Project analyst. Kimley-Horn is working with a local architect for the development of a fixed base operator facility (FBO) on the west side of FLL. We are preparing construction drawings for Phase I site improvements and will assist the architect for processing the site plan by providing conceptual engineering drawings identified in the scope of work.

**Fort Lauderdale-Hollywood International Airport (FLL), Terminal 4 Expansion, Fort Lauderdale, FL** — Project analyst. The replacement of Terminal 4 at Fort Lauderdale-Hollywood International Airport (FLL) is a phased program to replace the existing Concourse H. The existing concourse aircraft parking configuration has significant conflicts with the new Runway 10R/27L and the new program will resolve these issues.

The program, when complete, will consist of 14 gates that replace the existing 10-gate Concourse H. The new facilities will provide more concessions, passenger amenities, and be a more environmentally friendly facility than the existing concourse. Once completed the project will be the most modern building at the airport.

**Fort Lauderdale-Hollywood International Airport, Rehabilitation of North Airfield Pavements, Engineered Material Arresting System Beds, and RIM, Broward County, FL** — Project analyst. The Broward County Aviation Department (BCAD) has selected Kimley-Horn to provide professional engineering services associated with the rehabilitation of Runway 10L/28R and other airfield pavements at Fort Lauderdale-Hollywood International Airport (FLL). This Capital Improvement Project will enable BCAD to maintain the primary runway and other airfield pavements in good operational condition. The improvements included in the scope of the program are as follows:

- Rehabilitate Runway 10L approach Engineered Materials Arresting Bed (EMAS)
- Rehabilitate and Extend Runway 28R approach EMAS
- Rehabilitate Taxiway Alpha west of decommissioned Runway 13/31
- Rehabilitate Runway 10L/28R
- Rehabilitate Taxiway Bravo west of decommissioned Runway 13/31
- Rehabilitate Taxiway Bravo 8 at East End

- Rehabilitate connecting Taxiways to Runway 10L/28R
- Rehabilitate entrance to Fed Ex and FBO west of Embraer
- Runway and Taxiway Lighting System Upgrades and Electrical Improvements

Services provided will consist of two phases: program verification phase and construction documents/design phase.

Specific services Kimley-Horn will provide include:

- Coordination with the FAA on reimbursable agreements
- Geometric review of the airfield pavement in accordance with the current FAA AC 150/5300-13A
- Assessment of hotspot and runway/taxiway end geometry
- Existing pavement evaluation
- Runway and taxiway rehabilitation options benefit-cost analysis
- Engineering Material Arresting System (EMAS) evaluation and options review
- Environmental permitting review and development options
- Topographic survey
- Electrical systems inventory and review
- Stakeholders review including FAA ADO, ATCT and others
- Existing utilities review
- Construction documents/design phase services

**Watson Island Air Transportation Facility, Miami, FL** — Project analyst. Working with a private developer, Kimley-Horn is providing construction drawings, construction phase services, and permitting assistance for this multi-phase development that will include helicopter landing facilities, a fuel farm, hangars, and office space on Miami's waterfront. Kimley-Horn is providing permitting assistance with the FAA and Miami regulatory agencies including the DRER and Building and Zoning departments.

**Southwest Florida International Airport CCTV Surveillance System Upgrade, Fort Myers, FL** — Project analyst for the design of the fiber optic communications infrastructure for the security network to support approximately 400 CCTV cameras throughout the airport facility. The services included the evaluation of the candidate Video Management System (VMS), Access Control System (ACS), Perimeter Intrusion Detection System (PIDS), Network Storage for CCTV Surveillance System, CCTV cameras and network devices (e.g. L3 Ethernet Distribution switches, L2 Ethernet Access switches, servers) and generation of the Technical Specifications used for procurement.

**Broadstone Brickell Lofts, Miami, FL** — Project analyst for this multi-family development in Miami's Financial District (Brickell). The proposed project will include the construction of an eight-story residential building with approximately 419 units, a leasing office, an eight-story enclosed parking garage, and several amenity areas serving the development. Kimley-Horn is providing civil engineering services including due diligence, contract documents, permitting, and construction phase assistance.



## Professional Credentials

- Master of Science, Coastal Zone Management/Oceanography, Florida Institute of Technology, 1992
- Bachelor of Science, Marine Biology, Auburn University, 1989
- U.S. Army Corps of Engineers Wetland Delineator Certification (Jacksonville District)
- Gopher Tortoise Agent (Permit No. GTA-10-00008)
- Certified, Embry-Riddle Aeronautical University: Airport Wildlife Hazard Management Workshop
- Hazardous Materials Health and Safety Certification, Occupational Safety and Health Administration
- FDOT PD&E Manual Training
- FDOT Traffic Noise Analysis Certification, October 2015
- Member: Society of Wetland Scientists

## Special Qualifications

- Has 25 years of experience conducting environmental studies and coordinating environmental permits
- Extensive experience working with the U.S. Army Corps of Engineers (USACE), state permitting agencies, Florida Department of Environmental Protection (FDEP), and water management districts
- Has performed numerous Phase 1 environmental site assessments for projects throughout Florida
- Responsible for numerous projects that involved endangered and threatened species coordination and/or surveys
- Experience in environmental analysis, including freshwater ecosystems, marine ecosystems, and terrestrial habitats
- Involved in the preparation of natural resource documentation for NEPA documents (EIS, EA, FONSI), documented Categorical Exclusions for FDOT, FAA, and FTA

## Relevant Experience

### Environmental Assessment for Pompano Beach Airpark Runway 15-33

**Rehabilitation and Extension** — Environmental manager for the preparation of the Environmental Assessment for the extension of Runway 15-33. Services include listed species surveys for gopher tortoise, scrub jays and burrowing owls as well as data collection and analysis for social, natural and physical environmental effects. Responsible for the permitting of gopher tortoise and burrowing owl relocations and coordination with FAA. Ms. Kiefer is also responsible for the tree removal and mitigation permits and for providing testimony at the County Variance Hearing.

### Pompano Beach Airpark Environmental Assessment for the Taxiway Kilo Relocation- Phase I, Pompano Beach, FL

— Environmental lead for the relocation of Taxiway Kilo. Kimley-Horn conducted gopher tortoise and burrowing owl surveys and was responsible for permitting impacts to gopher tortoises and conducting relocation of gopher tortoises. Responsible for the Categorical Exclusion and coordination for FAA's approval.

### Pompano Beach Airpark, Wildlife Hazard Assessment and Wildlife Hazard Management Plan, Pompano Beach, FL

— Project manager responsible for conducting the Wildlife Hazard Assessment (WHA) and Wildlife Hazard Management Plan (WHMP). Services include wildlife surveys for 12 months and preparing the WHA for FAA review and approval. This study is currently on-going. Following completion of the surveys and WHMP will be prepared and coordinated with the Airpark with recommendations for minimizing wildlife hazards on the airport.

**City of Belle Glade, FL** — Environmental task manager for the preparation of the Documented Categorical Exclusion (CATEX) for the relocation of Runway 9/27 to address FAA safety guidelines. Improvements include relocation of the Runway 9/27 centerline approximately 35 feet south of its existing location as part of an interim strategy to mitigate the Part 77 Primary Surface and Runway Safety Area (RSA) concerns associated with the existing Runway and to allow the Runway Object Free Area (ROFA) to be clear of all existing obstructions. Additionally, Runway 9/27 will be widened to 60 feet to meet current FAA standards.

A temporary grass runway will be constructed south of the construction area within the X10 infield, and will be operated during construction in order to minimize disruptions to the existing airport operations. A documented Categorical Exclusion was prepared and coordinated with the Orlando ADO. A Cultural Resources Assessment Survey was conducted and coordinated with the State Historic Preservation Officer and the locally recognized tribes.

### Environmental Impact Statement (EIS) for Proposed Relocation of Panama City-Bay County International Airport (now called Northwest Florida Beaches Int'l Airport), Bay County, FL

— Environmental task manager and deputy project manager responsible for all natural resource evaluations for the preparation of the EIS for the proposed relocation of the airport. Tasks included evaluation of significant wetland, stream, and seagrass resources; listed species surveys; and evaluation and potential contamination sites with the existing and proposed airport facilities. Responsible for coordinating seasonal listed species surveys on an 8,000-acre study area, preparation of listed species reports, and preparation of the natural resource chapters for the EIS. In addition, was responsible for the preparation and coordination of the Essential Fish Habitat Assessment and a Biological Assessment to evaluate potential effects to listed species. Also

responsible for the preparation of a draft Biological Opinion for the flatwoods salamander. Extensively involved in all aspects of the EIS, including meetings with the Federal Aviation Administration, preparing responses to public comments, and public meetings, including the public hearing. Completed documented re-evaluation for the extension of the primary runway to 10,000 feet.

**Hillsborough County Aviation Authority (HCAA) Airport Support Facilities, Phase III Warehouse (Tampa International Airport), Tampa, FL** — Task manager responsible for coordinating local, state, and federal environmental permits for the development and construction of the Airport Support Facilities - Phase III Warehouse. The project involved extensive coordination regarding protection of off-site wetlands and field analyses to demonstrate that the stormwater facilities would not adversely affect off-site wetland resources.

**Environmental Assessment for Naples Municipal Airport Runway 5-23, Naples, FL** — Environmental task manager responsible for the data collection, analysis, and preparation of the environmental assessment (EA) for threshold improvements to the Naples Municipal Airport Runway 5-23. Services included listed species surveys (gopher tortoise, bald eagle, and burrowing owls), the Phase I environmental site assessment, coordination regarding the cultural resource assessments, and coordination with the Federal Aviation Administration regarding the EA.

**Watson Island Aviation Transportation Facility, Miami, FL** — Environmental task manager responsible for the review of the environmental resources occurring on the site in support of the master plan.

**Daytona Beach International Airport (DBIA) Tree Mitigation Project, Daytona Beach, FL** — Project manager. Kimley-Horn assisted DBIA in implementing the recommendation in their Wildlife Hazard Management Plan to remove the trees and wetland areas on parcels immediately adjacent Runway 16/34. This included wetland delineation, permitting and mitigation coordination; gopher tortoise survey, permitting and relocation; evaluation of the existing closed landfill and preparation of a plan to avoid disturbance to the landfill; preparation of clearing and grading plans, stormwater modeling and design, access and safety plans; preparation of the Construction Safety and Phasing Plan per FAA AC 150/5370-2F; permitting; assistance with the bidding the project and preparation of the documented Categorical Exclusion for submittal to FAA.

**Southwest Florida International Airport, Mitigation Park, Fort Myers, FL** — Project manager. Assisted the Lee County Port Authority (LCPA) in mapping and assessing the 7,000-acre mitigation park. GIS mapping and ground truthing were conducted to identify and map the exotic and nuisance species. The purpose of the mapping was to determine if the mitigation park was in compliance with the existing state and federal permits, to assess the site conditions, and to make recommendations regarding future maintenance. Kimley-Horn prepared a detailed mitigation assessment report and provided short- and long-term maintenance recommendations for consideration by LCPA. Following completion of the assessments, Kimley-Horn prepared technical specifications package for contractor bidding. Kimley-Horn also provided construction phase services for the first phase of treatment.

**Omaha Airport Authority, Eppley Airfield Terminal Area and Airport Master Plan, Omaha, NE** — Environmental task manager. Kimley-Horn was a major subconsultant working on the master plan update. Our staff served as the lead landside planner and lead environmental consultant for the environmental overview. Environmental tasks Lynn completed included a detailed GIS evaluation of the social, natural, and physical environment and preparation of the environmental overview for the master plan. Finally, a general overview of potential impacts for all the proposed master plan alternatives was provided.

**Denton Municipal Airport Master Planning - TxDOT Aviation, Denton, TX** — Environmental scientist. Through a contract from the Texas Department of Transportation (TxDOT) Aviation Division, Kimley-Horn was selected to lead the development of the master plan and several related supplemental tasks for Denton Enterprise Airport. An evolving reliever airport to Dallas-Fort Worth International Airport, Denton Enterprise is located north of Dallas in a fast-growing suburb. The primary issue for the master plan was justification of a parallel runway to support the increasing flight training needs as well as the large corporate activity occurring due to the airport's location in the Metroplex. In addition to traditional master planning tasks, the project included separate plans for drainage, transportation, and water/wastewater, specifically focused on the impacts that would result from the new runway. Kimley-Horn conducted an environmental assessment (EA) for the new runway. The EA was conducted concurrently with the master plan once the recommendations were finalized. The primary issues addressed in the EA included the floodplain and related water issues as well as noise, air quality, and land use compatibility.

# Brady J. Walker

Environmental

## Professional Credentials

- Bachelor of Science, Biology, Denison University, 2004
- Member: Society of Wetland Scientists

## Special Qualifications

- Has 12 years of experience including extensive field work throughout Florida in upland, freshwater, and estuarine environments
- Experience designing wetland mitigation and restoration areas, conducting endangered species surveys, delineating wetlands, and permitting projects throughout Florida
- Authorized Gopher Tortoise Agent
- PADI-certified scuba diver

## Relevant Experience

### **Pompano Beach Air Park Continuing Services (including Runway 15-33 Rehabilitation), Pompano Beach, FL**

— Environmental analyst and assisted with the permitting and successful relocation of 21 gopher tortoises as part of a runway expansion project. Also conducted surveys for burrowing owls throughout the airport and permitted and conducted the “take” of several burrowing owl nests in conjunction with runway expansion projects. Set up starter burrows and T-perches for the owls to relocate to.

### **Pompano Beach Air Park, Taxiway G Grant Assistance, Pompano Beach, FL**

— Environmental analyst. Kimley-Horn completed design of the Extension of Taxiway G in mid-2015. After discussions with the FAA’s district office revealed that the project was a low priority for funding, the City asked Kimley-Horn to produce a brochure demonstrating the project’s benefits to air travel and the surrounding community. The key to the brochure was explaining complex aviation concepts to the public. Kimley-Horn identified 15 safety enhancements included in the project. Then, they went to the Air Park’s tenants and air traffic control tower and obtained signed letters in support of the projects. Finally, they analyzed the Air Park’s noise contour map and showed how the project would reduce noise in the surrounding community, a big concern for the local residents and voters. Once the

brochure was completed, Kimley-Horn identified likely advocates in the State and Federal legislatures. They reached out to their staffers and educated them about the benefits of this project not captured in the FAA’s assessment criteria. The project is currently on a short list for FDOT funding.

**Wetland Mitigation Parcel Review, Okeechobee County, FL** — Project manager for a review of various parcels to assess their suitability for offsetting mitigation requirements at the Okeechobee County Airport. Currently Okeechobee County Airport has several on-site conservation areas associated with the development of the Airport Industrial Park. The Federal Aviation Authority has stated that on-site conservation areas are not consistent with a federally-supported airport and the County must remove these conservation areas within the airport’s boundary in order to receive federal funding for airport maintenance. Kimley-Horn is helping the County evaluate the potential purchase of a large tract of land that will meet current conservation area functions so the mitigation activities can be transferred off airport property.

**Paris Air Hangar Facilities at Vero Beach Municipal Airport, Vero Beach, FL** — Environmental analyst. Kimley-Horn designed three hangars for Paris Air airplane storage at the Vero Beach Municipal Airport. Our services included site planning, design, engineering, civil permitting, and agency coordination (City of Vero Beach Utility Department, City of Vero Beach Airport, and the FAA). Paris Air currently has under lease approximately 7.4 acres along the west end of the main runway at the Vero Beach Airport. The property was previously undeveloped and contained a small wetland area that had to be permitted for impact through the St. Johns River Water Management District (SJRWMD). The development proposal includes three new hangars, each measuring approximately 14,000 square feet. In addition, a new private, 20,000-square-foot air terminal is proposed in a future phase. The project was permitted through the City of Vero Beach, St. Johns River Water Management District, and the Florida Department of Environmental Protection.

**Southwest Florida International Airport, Mitigation Park, Fort Myers, FL** — Environmental scientist. Kimley-Horn assisted Lee County Port Authority (LCPA) in mapping and assessing the 7,000-acre mitigation park that was created to compensate for impacts with the development of a new terminal. GIS mapping and ground truthing were conducted to identify and map the exotic and nuisance species to determine if the mitigation park was in compliance with the existing state and federal permits, to assess the site conditions, and to make recommendations regarding future maintenance. Kimley-Horn prepared a detailed mitigation assessment report and provided short- and long-term maintenance recommendations for consideration by LCPA. Following completion of the assessments, Kimley-Horn prepared technical specifications package for contractor bidding. Kimley-Horn also provided construction phase services for the first phase of treatment.

**SR 7/US 441 PD&E Study (Sample Road/Glades Road), FDOT District Four, Deerfield Beach** — Serving as environmental scientist for this PD&E study for 6.4-mile segment of SR 7 from Sample Road in Broward County to SR 7 in Palm Beach County. Prepared the WER and ESBA for the PD&E study which is evaluating a wide range of alternatives, including roadway capacity improvements, multimodal and premium transit alternatives, and bicycle and pedestrian

accommodations. Improvements that are being considered include roadway widening, managed lane concepts, High Occupancy Vehicle (HOV) lanes and dedicated premium transit lanes, intersection and operational improvements, and multimodal improvements such as pedestrian ways, bicycle lanes, greenways, and transit stations.

**PD&E Study for Florida's Turnpike Spur and the HEFT from NW 57th Avenue to Turnpike Mainline, Broward and Miami-Dade Counties** — Environmental scientist providing environmental and public involvement support, including preparation of the WER and ESBA, as well as assisting with roadway design, structural elements, drainage (including preparation of a Location Hydraulics Technical Memorandum and a Pond Siting Report), permitting, and lighting.

**Redevelopment of Dania Beach Jai Alai (for the Aragon Group), Dania Beach, FL** — Conducted a natural resource assessment, wetland delineation, and Broward County jurisdictional determination on this 24-acre site adjacent to the Dania Cut-Off Canal. Led the effort to resolve a pending violation for unauthorized mangrove trimming with the County while ensuring that the most valuable land on this property (waterfront) remained unencumbered by the mitigation requirements. The project is ongoing.

**Oakland Park Environmental Services (Cherry Creek Environmental Assessment and Dredging & Sleepy River Dredging), Oakland Park, FL** — Served as project analyst. Provided project management, environmental assessment, and permitting services for the City of Oakland Park. Environmental services included conducting an alternatives analysis and environmental assessment of Cherry Creek and Coral Lakes headwaters, permit support documentation to dredge portions of the waterway and preparation of associated mitigation plans, and support during the bidding process, as well as construction phase services during the duration of the contractor's work to maintain permit compliance.

**Boynton Beach Community Redevelopment Agency (CRA) Mangrove Mitigation Monitoring, Boynton Beach, FL** Project manager/environmental scientist. Kimley-Horn was involved with the permitting for the expansion of Boynton Beach Boulevard and the Promenade, as well as providing environmental services for the related impacts to natural resources associated with the project and the creation of tidal wetland mitigation area. Through coordination with the local, state, and federal agencies, Kimley-Horn designed a mitigation area to fully replace the wetland functions lost with the extension of the promenade and Boynton Beach Boulevard. Kimley-Horn then performed five years of successful monitoring, making maintenance suggestions to the CRA, and received release from monitoring requirements in 2011.

**Lloyd Estates Streetscape and Drainage Improvements, Oakland Park, FL** — Analyst for the Kimley-Horn team that provided professional engineering services for the design and construction of the Lloyd Estates Residential and Industrial Area Drainage Project. The project involves phased drainage and water distribution system improvements consisting of the construction of a stormwater collection system with water quality treatment measures and possible upgraded outfalls, as well as replacement of select existing water mains within the project area. The professional services include surveying, stormwater analysis, civil and electrical engineering design, landscaping and irrigation, permitting, coordinating with utility providers for adjustments and or relocations, preparing quantity calculations, and engineer's estimates of probable costs.

**Miami Lakeway North Resurfacing and Drainage Improvements, A Federally-Funded Design-Build Project, Miami Lakes, FL** — Environmental analyst. Kimley-Horn assisted the Town in obtaining more than \$600,000 in stimulus funding to construct this roadway and drainage improvement project that includes a portion of Miami Lakeway North between Celebration Point and Miami Lakes Drive and NW 153rd Street from Miami Lakeway North to NW 60th Avenue. Prior to obtaining the stimulus funding, Kimley-Horn assisted the Town in becoming Local Agency Program (LAP) certified so that the Town would be eligible to obtain the stimulus funding. Our team developed a design criteria package—in compliance with Federal funding criteria—which resulted in securing the stimulus funding and award of the project to the design-build team. The project included drainage system improvements such as new stormwater inlets, a new outfall connection, exfiltration trench for water quantity and quality treatment, new sidewalk, and new pavement markings and signage. Kimley-Horn also provided construction phase services to expedite the project and to confirm that the project was built in compliance with the design criteria.

**Miami River-Miami Intermodal Center Capacity Improvement (MR-MICCI), Miami, FL** — Environmental scientist. Project will provide additional mainline track(s) within the So. FL Rail Corridor from just north of the Tri-Rail Hialeah Market Station to the Tri-Rail Miami Airport Station, which in the future will be accommodated within the Miami Intermodal Center's (MIC's) Miami Central Station (MCS).

**Miami-Dade MPO NW 27th Avenue Enhanced Bus Service Concepts and Environmental Plan, FL** — Environmental scientist. Kimley-Horn was retained by the Miami-Dade County MPO to develop a concept for the implementation of enhanced bus service along NW 27th Avenue and be responsible to prepare the necessary environmental documentation for the project consisting of a Documented Categorical Exclusion (23 CFR 771.117 (d)), as required under the National Environmental Policy Act (NEPA).



## Professional Credentials

- Master of Science, Wildlife Ecology, Texas State University, 2014
- Bachelor of Science, Wildlife and Fisheries Science, Texas A&M University, 2009

## Special Qualifications

- Has three years of experience in the biological sciences with emphasis in species monitoring, habitat assessments, and field experience related to ungulate and avian ecology.
- Certified wetland delineator with a comprehensive understanding of Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Federal and State regulations regarding Waters of the U.S.
- Experienced with managing multiple projects to completion, overseeing and training personnel, and providing effective verbal and written communication.

## Relevant Experience

**Pompano Beach Air Park, Taxiway G Grant Assistance, Pompano Beach, FL** — Environmental analyst. Kimley-Horn completed design of the Extension of Taxiway G in mid-2015. After discussions with the FAA's district office revealed that the project was a low priority for funding, the City asked Kimley-Horn to produce a brochure demonstrating the project's benefits to air travel and the surrounding community. The key to the brochure was explaining complex aviation concepts to the public. Kimley-Horn identified 15 safety enhancements included in the project. Then, they went to the Air Park's tenants and air traffic control tower and obtained signed letters in support of the projects. Finally, they analyzed the Air Park's noise contour map and showed how the project would reduce noise in the surrounding community, a big concern for the local residents and voters. Once the brochure was completed, Kimley-Horn identified likely advocates in the State and Federal legislatures. They reached out to their staffers and educated them about the benefits of this project not captured in the FAA's assessment criteria. The project is currently on a short list for FDOT funding.

**City of Coconut Creek Environmental Services, Broward County, FL** — Lead environmental analyst. Performed field reconnaissance, created GIS figures, and assisted in the preparation of the Phase I Environmental Site Assessments (ESAs).

**PD&E Study for Florida's Turnpike Spur and the HEFT from NW 57th Avenue to Turnpike Mainline, Broward/Miami-Dade Counties, FL** — Environmental analyst for the Kimley-Horn team that is serving as a subconsultant to another firm to provide engineering services for a PD&E study for the widening of the Florida's Turnpike Spur and the HEFT from East of NW 57th Avenue to Mainline in Broward and Miami-Dade counties. Kimley-Horn's role is to provide environmental and

public involvement support, as well as to assist with roadway design, structural elements, drainage (including preparation of a Location Hydraulics Technical Memorandum and a Pond Siting Report), permitting, and lighting.

### **Midway Road (CR 712) from Glades Cutoff Road (CR 709) to Selvitz Road (CR 615) PD&E Study, St. Lucie, FL**

Environmental analyst assisting with endangered species surveys for Kimley-Horn's services as a major subconsultant on this 1.6-mile segment of Midway Road. The project includes evaluating the widening of Midway Road from 2 to 4 lanes as well as a concept study for a new interchange with the Florida's Turnpike. Kimley-Horn is responsible for all traffic analyses, structures evaluations, and environmental (socio-cultural, wetland and endangered species – including extensive Audubon's crested caracara surveys) evaluations. In addition, Kimley-Horn is responsible for preparing the interchange concept report and coordinating the results with Florida's Turnpike Enterprise.

**Wetland Mitigation Parcel Review, Okeechobee County, FL** — Environmental scientist for a review of various parcels to assess their suitability for offsetting mitigation requirements at the Okeechobee County Airport. Currently Okeechobee County Airport has several on-site conservation areas associated with the development of the Airport Industrial Park. The Federal Aviation Authority has stated that on-site conservation areas are not consistent with a federally-supported airport and the County must remove these conservation areas within the airport's boundary in order to receive federal funding for airport maintenance. Kimley-Horn is helping the County evaluate the potential purchase of a large tract of land that will meet current conservation area functions so the mitigation activities can be transferred off airport property.

**Community Development Block Grant (CDBG) Water Main Extension, City of Dunnellon, FL** — Environmental analyst for endangered species surveys and relocation. Assisted with gopher tortoise excavation and relocation along the proposed alignment. Kimley-Horn provided design, permitting, grant assistance, and construction stage services for an extension of a water main. The project included coordination with Marion County Utilities to interconnect the City and County water systems. Kimley-Horn also provided interlocal agreement coordination services, along with CDBG coordination services.

**Florida's Turnpike All-Electronic Tolling (AET) Design, Broward, Palm Beach, Martin, and Orange County** — Currently serving as an environmental analyst responsible for the initial field reviews to evaluate the natural resources along the corridor. Conducted field evaluations of the wetlands and surface waters, as well as field reviews to identify potential listed species

*Relevant Experience, cont.*

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along the corridor (including red-cockaded woodpecker, wood stork, Florida scrub jay, and Everglade snail kite. Kimley-Horn is responsible for the design of the new AET plazas along the Turnpike and environmental (socio-cultural, wetland and endangered species – including extensive Audubon's caracara surveys) evaluations.

**Grande Oaks Development, Polk County, FL** — Served as environmental analyst responsible for sand skink coverboard surveys and natural resource assessments. Conducted installation and field verification of sand skink coverboard surveys within the 250 acre site.

**Sinclair Road Expansion, Osceola County, FL** — Served as environmental analyst responsible for sand skink coverboard surveys and natural resource assessments. Conducted installation and field verification of sand skink coverboard surveys within the 65 acre site. Responsible for both data collection and analysis.

**Old Lake Wilson Road Natural Resource Assessment, Osceola County, FL** — Served as lead environmental analyst responsible for field reconnaissance, preparation, GIS analysis, and report writing. Study included additional sand skink coverboard surveys.

## Special Qualifications

- Construction professional with 15 years of experience overseeing all phases of multimillion-dollar construction, infrastructure, utility, and environmental projects for government and private-sector clients.
- Experience includes managing crews of up to 50 in highway improvements, commercial site development, underground utility installation, and a variety of other construction/demolition projects.
- Experience backed by strong credentials and a proven history of on-time, on-budget, and high-quality project completions.

## Relevant Experience

### **Southwest Florida International Airport (RSW) Taxiway F Depression Investigation and Repair, Fort Myers, FL**

Construction phase services field representative. Taxiway F is the primary parallel taxiway serving RSW's only runway, 6-24. When several small depressions appeared out of nowhere on Taxiway F, the Airport called on Kimley-Horn to investigate the cause and provide repair plans. The urgent nature of the work required close coordination with the geophysical testing firm and the Airport Operations staff to perform the work quickly without impacting commercial service. The team utilized an innovative investigation technique known as electrical resistivity imaging to 3D map the pavement subsurface. Within two weeks, the investigation was completed and repair plans were produced. The team customized a program of grout injection, verification testing, and full-depth repair that produced a long-term repair solution while minimizing the closure period and grouting costs.

### **D-4 Stormwater Pump Station Improvements, Palm Beach, FL**

Kimley-Horn's construction phase services field representative during the improvements project. The improvements included: a new FPL electrical service and pad-mounted transformer; conversion of the existing FPL electrical vault

room into an electrical room which will house the new motor control center, pump station control panel, and miscellaneous electrical equipment; an additional automatic transfer switch to allow the existing conductors to provide both primary and emergency back-up power to both the E-6 Lift station and D-3 pump station; three new 150-hp submersible axial flow main pumps; one 75-hp submersible axial duty pump; and wetwell improvements, including new discharge piping, concrete divider walls between pumps, and stainless steel pump supports for each pump. The existing electrical/mechanical room will be renovated to house 600-kW and 300-kW generators, providing emergency back-up power for the D-4 stormwater pump station and the E-7 lift station, which is located on the D-4 site.

**D-10 Stormwater Pump Station Improvements, Palm Beach, FL** — Kimley-Horn's construction phase services field representative during the improvements project. The improvements included: a new FPL electrical service and pad-mounted transformer; conversion of the existing FPL electrical vault into the new pump station electrical room, which will house the new motor control center; pump station control panel; miscellaneous electrical equipment; three new 215-hp submersible axial flow main pumps; one 70-hp submersible axial duty pump; and wetwell improvements, including new discharge piping, concrete divider walls between pumps, and stainless steel pump supports for each pump. The existing electrical/mechanical room will be completely demolished and reconstructed with sound attenuating concrete blocks and acoustical ventilation silencers to meet the Town's noise ordinance and new 750-kW and 150-kW generators, which will provide emergency back-up power for the D-10 stormwater pump station and the E-3 sanitary lift station.

**D-12 Pump Station Phase 1 Electrical Improvements, Palm Beach, FL** — Kimley-Horn's construction phase services field representative for electrical improvements to the Town's D-12 pumping station. Conducted periodic site inspections and prepared field reports for each day's observations. Attended weekly project progress meetings and pump start-ups as required.

**North Ocean Blvd. Seawall Replacement, Palm Beach, FL** — Construction phase services field representative to verify construction was completed in general accordance with contract documents. Observations and follow-up field reports included demolition, site work, concrete placement, sheet piling placement, and drainage installation.

**D-8 and D-14 Stormwater Pump Station Fuel Tank Replacements, Palm Beach, FL** — Kimley-Horn's construction phase services field representative for the replacement of fuel tanks of the Town's D-8 and D-14 pumping stations. Conducted periodic site inspections and prepared field reports for each day's observations. Witnessed pressure testing of all new fuel piping.

**Bradley Place Water Main Replacement, Palm Beach, FL** — Construction inspector for the project. Provided construction phase services which included periodic site visits, provided Town with daily written field reports, and attended weekly progress meetings.

**Northwood Railroad Utility Relocations, West Palm Beach, FL** — Construction phase services field representative to verify construction was completed in general accordance with contract documents. Observations and follow-up field reports included demolition, installation of utilities, pressure testing of new piping, and site work.

**Lift Station 13 Improvements, West Palm Beach, FL** — Construction phase services field representative to verify construction was completed in general accordance with contract documents. Observations of the construction of a new electrical room addition built on sheet piling, installation of new generator, VFDs, valve actuators, valves, and flow meters. Also performed follow-up field reports included demolition, installation of utilities, pressure testing of new piping, and site work.

**Lift Station 23 Rehabilitation, West Palm Beach, Florida** — Construction inspector for the project. The project entails the installation of new pumps and associated piping, the construction of a new electrical room addition, installation of new electrical gear, installation of new variable frequency drives, and the installation of a new backup generator system. The project also entails minor demolition and site work as well as the rehabilitation of the existing wet well.

**Town Hall Square Streetscape Phase II, Palm Beach, FL** — Construction phase services field representative to verify construction was completed in general accordance with contract documents. Construction included the installation of drainage structures and 15" RCP within an FDOT roadway. Demolition and installation of concrete sidewalks, curb, street lighting, and landscaping. The project also required the milling and resurfacing of FDOT roadway. Conducted inspections, performed daily field reports, shop drawing review, and contractor pay application reviews.

**North County Road Traffic Signalization and Sidewalk Improvements, Palm Beach, FL** — Kimley-Horn's construction phase services field representative during the improvements project. The improvements include: the demolition and installation of curb and sidewalk; the installation of conduit for street lighting; the installation of 48" diameter drilled shaft mast arm foundations; installation of new mast arms and signals; installation of signal cabinets and pedestrian poles; fire hydrant relocation; installation of 3 drainage structures and 15" RCP; milling and resurfacing of existing roadway. Prepared field reports for work day activities; attend progress meetings; review contractor pay applications; pressure testing of hydrant work.

#### *Experience Prior to Joining Kimley-Horn:*

##### **Infrastructure Improvement Projects**

- Installation of new drainage lines, new airport electrical systems, and resurface runway at Robertson Field in Plainville, CT, completing the project on budget and ahead of schedule.
- Managed the widening of CT Route 111 in Monroe, CT. Also managed the milling and resurfacing of approximately 1.3 miles of CT Route 111. Worked closely in conjunction with CONN DOT.
- Budgets: \$1M to \$6M

##### **Underground Utility Installations**

- Installation of approximately 4500 L.F. of new 8" D.I. water main in Farmington, CT for the CT Water Company.
- Provided inspection services for a two-year project in urban Hartford, CT that includes the installation of new water mains (4" D.I. up to 24"D.I.), approximately 84 new house water connections, new drainage lines and structures (4" PVC up to 24" RCP), and new sewer mains and structures (6" PVC up to 15" PVC).
- Budgets: \$2M to \$25M

##### **Site Remediation**

- Led all phases of site remediation of hazardous and contaminated soils. Including the proper excavation, storage, removal offsite, and restoration of the properties.
- Budgets: \$1M to \$3M

##### **Other Construction and Demolition Projects**

- Completed diverse construction/demolition projects, including the ground-up build of multiple new retail stores, warehouses up to 250,000 S.F., and municipal buildings as well as general site improvements and new utility installation for multiple commercial businesses.
- Budgets: \$450K to \$18M



## Professional Credentials

- Bachelor of Science, Civil Engineering Technology, Thomas Edison State College, 2012
- Wentworth Institute of Technology - Boston, MA (Completed 90 credits towards a B.S. in Civil Engineering Technology, 1978-1983)

## Special Qualifications

- Construction services manager with more than 32 years of experience in land development and roadway construction
- Expertise in the fields of transportation, water and sanitary sewer transmission lines, stormwater, concrete construction, roadway and site development
- Proven ability to manage multiple active construction projects
- Performs other engineering tasks such as cost estimates, quantity take-offs, specifications, constructability reviews, and construction administration

## Relevant Experience

### **Ballpark of the Palm Beaches a/ka West Palm Beach Spring Training Facility for the Houston Astros and Washington Nationals, West Palm Beach, FL**

Kimley-Horn is currently providing civil engineering services for the development of the Ballpark of The Palm Beaches, a state-of-the-art two-team spring training facility in West Palm Beach, Florida. The 8,500-seat stadium will annually host the Houston Astros and the Washington Nationals during the Spring Training season. In addition to the new stadium, the 154-acre property will also accommodate 12 auxiliary major/minor league fields, five Palm Beach County multipurpose fields, and a 12.2-acre City of West Palm Beach park. The facility will be used year-round by Palm Beach County for sports tournaments and other events. Kimley-Horn's scope of work includes on-site civil engineering, environmental resource work, event traffic management planning, permitting, and construction phase services. Kimley-Horn is also directing subconsultants performing the off-site turn lane design, signal modifications, survey, and utility locations. The Ballpark of The Palm Beaches is expected to open Spring 2017.

### **FAU Florida Atlantic Boulevard Northern Four Lane Design and Permitting, Boca Raton Campus, Boca Raton, FL**

— Served as Kimley-Horn team member for roadway design (including vertical alignment, cross sections, pavement design, grading), drainage design, reclaimed water main, utility relocation, and erosion and sedimentation control. Assisted the project manager with coordination with FAU, Palm Beach State College, the Research and Development Park at FAU, and the City of Boca Raton. Performed construction phase services for the project, including attending and participating in owner/contractor construction meetings, shop drawing review, responses to requests for information, issuing any necessary plan changes and construction change directions, field reviews for all stages of construction, substantial and final completion walkthroughs and punch lists, review of contractor change orders, and other services.

**Federal Highway, Delray Beach, FL** — Member of the Kimley-Horn team that is providing post design services on this project for the City of Delray Beach. Responsibilities include shop drawing review, site visits, progress meetings, and coordination with agency responses.

**Franklin Academy, Boynton Beach, FL** — Team member. Franklin Academy is a proposed 1,300-student charter school proposed to be located along Military Trail, west of Boynton Beach. Kimley-Horn provided transportation planning services prior to County Commission approval of the site. Kimley-Horn has also provided signal design services for a new mast-arm traffic signal at Minor Road and Military Trail, as well as turn-lane design for a new turn-lane on Military Trail, and roadway design plans for a rebuild of Old Military Trail adjacent to the site. Our team coordinated closely with Palm Beach County through the design process, and provided construction phase services throughout the construction of the project. Design and construction of the improvements were required within an aggressive 10-month schedule.

**Jupiter Medical Center Expansion (includes Bed Tower and Drainage Improvements), Jupiter, FL** — Team member providing construction phase services. The Jupiter Medical Center expansion project consists of a three-story, 99,870-square-foot addition and renovation to the existing facility. New construction includes a lobby, executive offices, and outpatient functions and food services areas; the expansion includes 30 ortho/neuro patient rooms and a rehabilitation gymnasium. As a subconsultant to another firm, Kimley-Horn is providing civil engineering services for a new 47,000-square-foot bed tower and 9,000 square feet of meeting spaces. Our team is responsible for site planning, design, permitting, and construction phase services. The scope of work includes campus landscape modifications, significant drainage improvements, and permitting through the Town of Jupiter.

**Mandel Jewish Community Center (fka North County Jewish Community Center), Palm Beach Gardens, FL** — Team member providing construction administration/inspection services. Kimley-Horn is providing civil engineering services for this proposed facility on a 15-acre site on Hood Road in Palm Beach Gardens. The 56,000-square-foot, state-of-the-art facility

will feature an early childhood learning center and summer day camp, a pool and aquatics center, sports fields, reception hall, indoor and outdoor playgrounds, and class space. Completion of construction is anticipated by summer of 2014.

**Marcus Neuroscience Institute at Boca Raton Regional Hospital, Boca Raton, FL** — Providing construction administration services. Kimley-Horn is providing engineering design services as a subconsultant to another firm. This facility will serve as a new, state-of-the-art nexus of care for neurologic and neurosurgical patients and transform the landscape of clinical capabilities available in the region. The 57,000-square-foot facility will house a 20-bed neuro-intensive care and step-down unit.

**Federal Highway, Delray Beach, FL** — Member of the Kimley-Horn team that is providing post design services on this project for the City of Delray Beach. Responsibilities include shop drawing review, site visits, progress meetings, and coordination with agency responses.

**FAU Parliament Hall, Boca Raton, FL** — Team member. As a subconsultant to an architect, Kimley-Horn completed the civil engineering and regulatory agency permitting for the FAU Parliament Hall housing development. Parliament Hall is a 600-bed, on-campus housing facility for freshman students which includes three food service vendors, an exterior plaza, an art walk, and other student amenities. Services included site engineering, site layout, drainage design, utility relocation, lift station design, and grading design.

**FAU Parking Garage III, Boca Raton, FL** — Team member. Kimley-Horn provided civil engineering and regulatory permitting for this 943-space parking garage on FAU's Boca Raton campus. The garage is located on the north side of the campus and provides parking for the stadium as well as heavily utilized student areas including the student recreation and fitness center. Our services included site layout, drainage design, utility relocation, new traffic signal design, and grading design.

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**PROJECT MANAGER – RESUME (GENERAL)**  
**STEVEN M. WATTS, PSM**  
**AWN DESIGN & CONSULTING GROUP, INC.**

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**EDUCATION:**

BSLS, Purdue University, 1984  
Lambda Sigma: Land Surveying Honorary

**PROFESSIONAL REGISTRATION:**

Florida PSM No. 4588

**QUALIFICATIONS:**

Mr. Watts is President of AWN Design & Consulting Group, Inc. (AWN) and had been a Florida Professional Surveyor and Mapper since 1988. Prior to incorporating AWN in 2003, he was Vice President and Director of Surveying for Williams, Hatfield and Stoner, Inc. (WHS).

Having spent his entire surveying career working in Broward County, he is extremely knowledgeable of the rules, requirements and specifications for completing surveying and mapping projects in the South Florida area. He specializes in architectural and engineering design type surveys, land acquisition, easements, title research, and computer mapping. As Principal Surveyor of AWN he is responsible and involved in all aspects of the company's surveying and mapping projects.

**EXPERIENCE:**

**City of Pompano Beach - General Surveying & Mapping Services**

Boundary and Topographic Survey with construction stakeout and as-built surveys for the new restroom facility at Highlands Park. Boundary and Topographic Survey for Community Park, Boundary and Topographic Survey Fire Station #24; Boundary Survey Canal Point Park; Legal Descriptions: Avondale Fishing Piers; Topographic Survey for Municipal Golf Course Parking Lot.

**General Surveying & Mapping Services – City of Coral Springs**

Boundary and Topographic Surveys, As-Built Surveys, Legal Descriptions, Design Surveys, Construction Stakeout, and General Surveying Services for the City of Coral Springs

**General Surveying & Mapping Services – City of North Lauderdale**

Boundary and Topographic Surveys, As-Built Surveys, Legal Descriptions, City Limit Determinations and General Surveying Services for the City of North Lauderdale. Additional responsibilities include project surveyor for the topographic survey of the municipal complex, GIS, water control district and utility mapping and Silver Lakes Middle School ball field renovation. Project surveyor for the City of North Lauderdale's Water Treatment Plant rehabilitation project.

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**PROJECT MANAGER – RESUME (AIR PARK)**  
**STEVEN M. WATTS, PSM**  
**AWN DESIGN & CONSULTING GROUP, INC.**

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**Pompano Beach Air Park: Engineering Design Surveying Services – Runway 15-33**

Project surveyor for the rehabilitation and extension of Runway 15-33. On-site field responsibilities of managing survey field crews, data collection and coordination between control tower and airfield access. Office duties included processing field data, CAD drafting and overall project management.

**Pompano Beach Air Park: Engineering Design Surveying Services – Taxiway Kilo**

Project surveyor for the relocation of Taxiway Kilo. On-site field responsibilities of managing survey field crews, data collection and coordination between control tower and airfield access. Office duties included processing field data, CAD drafting and overall project management.

**Pompano Beach Air Park: Engineering Design Surveying Services – Taxiway Delta**

Project surveyor for the relocation of Taxiway Delta. On-site field responsibilities of managing survey field crews, data collection and coordination between control tower and airfield access. Office duties included processing field data, CAD drafting and overall project management.

**Pompano Beach Air Park: General Surveying Services**

Project surveyor for the pavement widening of Taxiway November; Runway Protection Zone Runway 14, Goodyear Blimp Base Site, Boundary Survey of the Air Park environs, Magnetic Headings for Runways 6-24, 15-33, and 10-28, FAA obstructions surveys for specific tree penetration into Protection Zone; Sketch and Legal Descriptions for Lease Parcels and Zoning Reclassification.

**Pompano Beach Air Park: Property Map**

Establish coordinate geometry in the Florida State Plane Coordinate system, calculate parcel areas and ensure closed polygons for 17 lease parcels. Provide Golf Course and Sand Spurs lease area boundaries in CADD format as closed polygon entities. Provide NGS Survey Benchmark Mark control information, designations and locations. Establish coordinate geometry and prepare a certified Sketch and Legal Description in recordation format (letter size – multiple pages) for the right-of-way transfer of N.E. 10<sup>th</sup> Street, N.E. 5<sup>th</sup> Avenue and N.E. 3<sup>rd</sup> Avenue from the Air Park environs to The City of Pompano Beach. Provide right-of-way parcels in CADD format as closed polygon entities for proper delineation on Property Map.

**Pompano Beach Air Park: Platting**

Experience with the platting process in Broward County and the requirements of Chapter 177, Part 1, Florida Statutes,. Responsible Surveyor in Charge and Signing Surveyor for the POMPANO BEACH AIR PARK F.B.O PHASE 1, Plat Book 171, Page 89, Broward County Records.





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**Joeven M. Valenzuela, P.E., M.B.A., LEED AP**

Principal, Project Manager

Mr. Valenzuela is the Owner and Principal of Beacon Consulting Engineers, LLC. Mr. Valenzuela has served as a senior electrical engineer and project manager for numerous projects. He has provided the design for electrical power systems, security, lighting, fire alarm, and communication systems for a wide variety of clients including educational facilities, hospitals, financial, military, state and federal governments, and commercial facilities.

**PROFESSIONAL EXPERIENCE:**

**Beacon Consulting Engineers**

Principal, Project Manager  
100 NE 6<sup>th</sup> St. Unit 102  
Boynton Beach, Florida 33435  
561-424-3270  
May 2011 – Present

**Hanson Professional Services, Inc.**

Senior Electrical Engineer, Project Manager  
1601 Belvedere Road, Suite 303S  
West Palm Beach, FL 33406  
561-471-9370  
May 1998 – May 2011

**Kamm Consulting, Inc.**

Electrical Engineer  
Deerfield Beach, FL  
January 1997 to April 1998

**Manila Electric Company**

Senior Electrical Engineer  
Ortigas Ave. Pasig City, Philippines  
June 1990 to May 1996



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## **EDUCATION**

### **Master of Business Administration (Executive MBA)**

Florida Atlantic University  
Boca Raton, Florida, Dec. 2014

### **Bachelor of Science in Electrical Engineering**

Western Institute of Technology, Philippines  
March 1989

## **PROFESSIONAL REGISTRATION**

Professional Engineer/Florida  
LEED AP/USGBC

## **PROFESSIONAL AFFILIATIONS**

Florida Engineering Society  
National Society of Professional Engineers  
Green Initiative Advancement Board (GIAB), Delray Beach, FL – Board Member  
National Fire Protection Association  
USGBC South Florida Chapter

### **Representative projects include:**

- **Dolphin Mall Mechanical and Electrical Services**, Miami, FL. Electrical Engineer for the design of the MEP services. This project included the site utilities design, utility coordination for all providers, site lighting and overall mechanical, electrical, plumbing and fire protection needs and services for the 1.6 million square foot, 2 story enclosed mall structure. The project included overall building core and shell, building interior packages, building amenities packages and retail tenant improvement upgrades for HVAC, Power, Lighting, Plumbing and Fire Protection. The project required extensive Life Safety and Emergency systems including smoke control, Fire Alarm, emergency generation and distribution.
- **Office Depot corporate headquarters, B2100, B2200, B2300** Planning and Interior Renovations, Delray Beach, FL. Electrical engineer for the MEP planning and design



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services. The project included overall planning addressing building ADA and tenant improvement upgrades for HVAC, Power, Lighting, Plumbing and Fire Protection.

- **Public Services Administrative Complex, Tamarac, FL.** M/E/P Engineering for the site programming, master site planning, building programming, design and construction documents for the Public Services Administrative Complex for the City of Tamarac.
- **Palm Beach County Airport Center Office Complex.** Provided electrical engineering design services for renovation of two (2) existing 61,000 square foot (each) buildings currently located at Airport Hilton Center on Australian Avenue in West Palm Beach, FL. The existing building square footages were upgraded and renovated to accommodate the relocated County functions, equipment and personnel.
- **Palm Beach County Jupiter Radio Tower Shelter Construction.** Provided MEP project management and electrical engineering design for pre-fabricated Radio Tower Shelter building that houses the equipment of the Radio Tower. Coordinated with the architect and the county's project manager on MEP requirements for permitting and construction.



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## **R E S U M E**

### **Dennis J. Mikulski**

Senior Project Manager / Senior Electrical Designer

Mr. Mikulski is a Senior Project manager of Beacon Consulting Engineers, LLC. He has served as a senior electrical designer and project manager for numerous projects. He has 40+ years of experience that includes the design and layout of power and lighting systems, as well as communication, data and fire alarm systems required for any type of facility requiring new or renovations to the appropriate systems. This includes a wide range of commercial buildings, hotels, industrial facilities, schools, churches, and public use facilities.

Mr. Mikulski is highly skilled in planning and analysis with key strengths in project management and coordination with clients. He is highly knowledgeable of National Electrical Code and Energy Codes and LEED design. He is experienced in specification writing, and construction management. He has ability to work on different projects simultaneously. He is experienced in the use of Visual and AGI computer aided lighting software packages.

### **PROFESSIONAL WORK EXPERIENCE:**

#### **Beacon Consulting Engineers**

Partner, Senior Project Manager  
100 NE 6<sup>th</sup> St. Unit 102  
Boynton Beach, Florida 33435  
561-424-3270  
July 2015 – Present

#### **Thompson & Youngross Engineering Consultants.**

Senior Electrical Designer, Project Manager  
Boca Raton, FL  
2001 – 2015

#### **Electrical Design Solutions, Inc.**

Principal / Project Manager  
West Palm Beach, FL  
1998 – 2001





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**Kamm Consulting, Inc.**  
Senior Electrical Designer  
Deerfield Beach, FL  
January 1994 to 1998

**Todd Carey & Associates**  
Electrical Department Head  
Senior Electrical Designer  
Deerfield Beach, FL  
1991 to 1994

**Gee & Jenson Architects-Engineers-Planners**  
Senior Electrical Designer  
West Palm Beach, FL  
1978 to 1991

**H.K. Ferguson**  
Electrical Designer / Drafter  
Senior Electrical Designer  
Cleveland, Ohio  
1973 to 1978

**Representative projects include:**

- **Springhill Suites, Miramar, FL., 2016.** Project Manager and Electrical Designer for the design of the MEP services. This project included the site utilities design, design of 5 stories, 125 rooms hotel.
- **Fairfield Inn & Suites, Vero Beach, FL., 2016.** Project Manager and Electrical Designer for the design of the MEP services. This project included the site utilities design, design of 3 stories and 85 rooms hotel.
- **Pembroke Center Mall, Pembroke, FL., 2015.** Project Manager and Electrical Designer for the design of the MEP services. This project included the site utilities design, design of 2 buildings with total of 10 big tenants.



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- **City of Pompano Fire Station #11, 2013.** Mr. Dennis Mikulski provided electrical engineering design for **City of Pompano Fire Station #11** when he was employed with another firm. The Architect of Record was Currie, Sowards and Aguila Architects.
- **City of Pompano Fire Station #103, 2012.** Mr. Dennis Mikulski provided electrical engineering design for **City of Pompano Fire Station #11** when he was employed with another firm. The Architect of Record was Currie, Sowards and Aguila Architects.



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## **R E S U M E**

### **Angelo L. da Silva, P.E.**

Project Manager / Senior Mechanical and Plumbing Engineer

Mr. Silva is a Senior Mechanical and Plumbing Engineer. He is project manager of Beacon Consulting Engineers, LLC. He has served as a senior mechanical engineer and project manager for numerous projects. He has 15 years of experience that includes the design and layout of HVAC and Plumbing systems required for any type of facility requiring new or renovations to the appropriate systems. This includes a wide range of commercial buildings, hotels, industrial facilities, schools, churches, and public use facilities.

### **PROFESSIONAL WORK EXPERIENCE:**

#### **Beacon Consulting Engineers**

Partner, Senior Project Manager  
100 NE 6<sup>th</sup> St. Unit 102  
Boynton Beach, Florida 33435  
561-424-3270  
January 2016 – Present

#### **Thompson & Youngross Engineering Consultants.**

Senior Mechanical & Plumbing Engineer  
Boca Raton, FL  
2005 – 2016

#### **DYWIDAG Systems International.**

Project Engineer  
Miami Beach, FL  
2003 – 2005

#### **PTE Strand, Inc.**

Project Engineer  
Miami Beach, FL  
2001- 2003



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## **EDUCATION**

### **Bachelor of Science in Mechanical Engineering**

Florida Atlantic University

Boca Raton, Florida, August 2001

## **PROFESSIONAL REGISTRATION**

Professional Engineer/Florida

Professional Engineer/Georgia

### **Representative projects include:**

- **Springhill Suites, Miramar, FL., 2016.** Mechanical and Plumbing Engineer for the design of the MEP services. This project included the site utilities design, design of 5 stories, 125 rooms hotel.
- **Fairfield Inn & Suites, Vero Beach, FL., 2016.** Mechanical and Plumbing for the design of the MEP services. This project included the site utilities design, design of 3 stories and 85 rooms hotel.
- **Pembroke Center Mall, Pembroke, FL., 2015.** Mechanical and Plumbing for the design of the MEP services. This project included the site utilities design, design of 2 buildings with total of 10 big tenants.
- **City of Pompano Fire Station #11, 2013.** Mr. Silva provided Plumbing engineering design for **City of Pompano Fire Station #11** when he was employed with another firm. The Architect of Record was Currie, Sowards and Aguila Architects.
- **City of Pompano Fire Station #103, 2012** Mr. Silva provided Plumbing engineering design for **City of Pompano Fire Station #11** when he was employed with another firm. The Architect of Record was Currie, Sowards and Aguila Architects.





**Amy L. Champagne-Baker, P.E., Senior Electrical Engineer  
Hillers Electrical Engineering, Inc.**

**Education**

Bachelor of Science in Electrical Engineering, 1997  
Clarkson University  
Professional Registration  
Registered Electrical Engineer, Florida No. 73735  
Registered Electrical Engineer, Connecticut No. 27854

**Experience**

19 years electrical design and construction management

Electrical and I&C design and construction management experience includes project management, installation supervision, shop drawing submittal review, testing, start-ups and construction observation of high, medium and low voltage distribution systems, instrumentation and control systems, interior and exterior lighting systems, fire alarm and security systems, camera systems, time and attendance, telephone systems, normal and stand-by emergency generation systems and power, sports lighting, FDOT roadways, air carrier and general aviation airports and parking and site lighting.

Responsibilities included estimating, project budgeting, contract administration, scheduling, staffing, resource allocation, subcontracts, submittals, purchasing, client/owner interaction, cost analysis, labor tracking, quality, value engineering, change orders, invoicing and project close out.

Proficiency with AutoCAD, MicroStation, SKM Power Tools™ for Windows DAPPER, CAPTOR, LitePRO, GE Lighting Systems Aladan + Plus.

**Professional Membership**

LEED Accredited Professional

**Project Experience**

**Fort Lauderdale / Hollywood International Airport- Terminal 4 Western Expansion, Fort Lauderdale, FL.** Included on-site verifications, testing and calculations, designed all power, control and lighting systems, fire alarm system, infrastructure for baggage handling systems, 4160V Emergency power expansion, apron lighting, TSA & US Customs screening areas power & lighting systems.

**Fort Lauderdale / Hollywood International Airport- Terminal 4 Eastern Expansion, Fort Lauderdale, FL.** Included on-site verifications, testing and calculations, designed all power, control and lighting systems, fire alarm system, infrastructure for baggage handling systems, 4160V Emergency power expansion, apron lighting, TSA & US Customs screening areas power & lighting systems.



**Fort Lauderdale/Hollywood International Airport – New Airfield Vault Electrical Normal & Emergency Power Distribution Systems.** Included calculations, layouts, circuitry new distribution systems with main switchgear, transfer switches, conduit systems to all the airfield lighting & NAVAID systems.

**Fort Lauderdale / Hollywood International Airport Designed & Construction Services - Airfield Modifications 3 High Speed Exit Taxiways & Taxiways A & B Rehabilitation Project, Ft. Lauderdale, FL**

Design: Included new runway & taxiway lighting and signage systems, modifications to existing FAA MALSR approach lighting system, complete new runway in pavement guard lighting system, relocation of existing 4 box PAPI system, complete new computer controlled airfield lighting systems in airfield lighting vault and in FAA air traffic control tower and modifications to the existing airfield lighting vault that included new regulators, power & control systems.

**Palm Beach County Department of Airports- 4100 ft. Taxiway “F” Extension Lighting & Signage, West Palm Beach, FL**

Design: Included new taxiway edge lighting, new mandatory & guidance signage, new electrical circuits conductors & conduit systems, FAA ILS cabling systems relocations, airfield lighting vault current regulators and modifications to the ATC airfield lighting control system and NAVAIDS modifications.

**Palm Beach County Department of Airports- New Apron “A” Expansion, West Palm Beach, FL**

Design: Included on-site verifications, testing and calculations, main PBIA Westside power and communications duct banks for FP&L, AT&T, PBI and FAA air traffic control tower, (3) new vehicle security gates with access control & security camera and emergency powers systems, apron & taxiway lighting & signage systems, apron aircraft parking security lighting and grounding systems.



**James William Kappes, P.E., Electrical Engineer**  
**Hillers Electrical Engineering, Inc.**

**Education**

Bachelor of Science in Electrical Engineering, 2005  
Florida Atlantic University

**Professional Registration**

Registered Electrical Engineer, Florida No. 71499

**Experience**

11 years electrical design and construction management

Electrical and I&C design and construction management experience includes project management, installation supervision, shop drawing submittal review, testing, startups and construction observation of high, medium and low voltage distribution systems, instrumentation and control systems, interior and exterior lighting systems, fire alarm and security systems, camera systems, time and attendance, telephone systems, supervisory control and data acquisition (SCADA) systems, PLC programming, energy management systems, normal and stand by emergency generation systems and power, sports lighting, FDOT roadways, air carrier and general aviation airports, parking and site lighting.

Responsibilities included estimating, project budgeting, contract administration, scheduling, staffing, submittals, client/owner interaction, cost analysis, labor tracking, quality, value engineering, change orders, invoicing and project close out.

Proficiency with SKM, AutoCAD, LitePRO, GE Lighting Systems Aladan + Plus.

**Project Experience**

**Fort Lauderdale / Hollywood International Airport- Terminal 4 Western Expansion, Fort Lauderdale, FL.** Included on-site verifications, testing and calculations, designed all power, control and lighting systems, fire alarm system, infrastructure for baggage handling systems, 4160V Emergency power expansion, apron lighting, TSA & US Customs screening areas power & lighting systems.

**Fort Lauderdale / Hollywood International Airport- Terminal 4 Eastern Expansion, Fort Lauderdale, FL.** Included on-site verifications, testing and calculations, designed all power, control and lighting systems, fire alarm system, infrastructure for baggage handling systems, 4160V Emergency power expansion, apron lighting, TSA & US Customs screening areas power & lighting systems.



### **Miami Dade Aviation Department - Miami International Airport R/W 27L Threshold Relocation Pavement Improvements, Miami, Florida**

Design: Included Runway centerline and edge lighting systems modifications, relocation of in-pavement threshold bar, (2) two in-pavement FAA MALSR systems modifications, replacement of edge and centerline circuit conductors and transformers and modifications to existing airfield lighting computer controlled system.

### **Palm Beach County Department of Airports - 5000 ft. Parallel Taxiway “L-East Extension” Lighting & Signage, West Palm Beach, FL**

Design: Included new taxiway edge lighting, new runway guard lighting system, new mandatory & guidance signage, new electrical circuits conductors & conduit systems, FAA ILS Glide Slope relocation, new FAA fiber optic duct bank and airfield lighting vault new current regulators & modifications and new ALCMS airfield lighting computer control system in existing and new FAA ATC.

### **Broward County Aviation Department - Fort Lauderdale / Hollywood International Airport Designed & Construction services: Airfield Modifications 3 High Speed Exit Taxiways & Taxiways A & B Rehabilitation Project, Ft. Lauderdale, FL**

Design: Included new runway & taxiway lighting and signage systems, modifications to existing FAA MALSR approach lighting system, complete new runway in pavement guard lighting system, relocation of existing 4 box PAPI system, complete new computer controlled airfield lighting systems in airfield lighting vault and in FAA air traffic control tower and modifications to the existing airfield lighting vault that included new regulators, power & control systems.

### **Palm Beach County Department of Airports- New Apron “A” Expansion, West Palm Beach, FL**

Design: Included on-site verifications, testing and calculations, main PBIA Westside power and communications duct banks for FP&L, AT&T, PBI and FAA air traffic control tower, (3) new vehicle security gates with access control & security camera and emergency powers systems, apron & taxiway lighting & signage systems, apron aircraft parking security lighting and grounding systems.





### Senior Airport Noise Specialist

Mr. Alberts has 23 years of aviation environmental, noise and land use planning experience at air carrier and general aviation airports throughout the country. His extensive knowledge and familiarity with airport development projects allows him to understand the unique responsibilities airports have in addressing environmental issues, especially noise. He has been responsible for a wide array of aviation noise mitigation studies that involved aircraft noise modeling, operational noise abatement flight procedures, ground noise mitigation, noise abatement strategies and off-airport land use compatibility planning initiatives. He is an expert in the use of the FAA's Aviation Environmental Design Toolkit (AEDT) and the U.S. DOD's NOISEMAP model. He has also managed numerous environmental assessments that included major runway extensions and airspace modifications.

#### *Expertise*

Aircraft noise mitigation strategies, Part 150 studies and NEPA assessments.

#### *Years of Experience*

23 years  
Years with KBE 3

#### *Education*

BA, 1999  
Geography  
University of South Florida

#### *Professional Affiliations*

Florida Airports Council Noise Abatement & Community Affairs and Environmental Committees

### Representative Projects & Services

**Miami Executive Airport, Noise Evaluation of Aircraft Operational Procedures, Miami, Florida.** Project Manager/Lead Noise Modeler for the comprehensive noise study that involved the analysis of 24 procedures that had the potential to reduce aircraft noise exposure on the surrounding communities. The study was prepared at the request of the local communities. Fifteen of the procedures were recommended for implementation.

**Miami-Opa locka Executive Airport, Noise Evaluation of Aircraft Operational Procedures, Opa-locka, Florida.** Project Manager for the comprehensive noise study that involved the analysis of noise abatement procedures that had the potential to reduce aircraft noise exposure on the surrounding communities. The final recommended procedures were developed with input from the citizen members of the Miami-Opa locka Executive Airport Noise Abatement Task Force.

**Miami International Airport, Operational Noise Mitigation Procedures Environmental Assessment, Miami, Florida.** Project Manager the EA at this major air carrier airport. The EA included moving aircraft departure flight paths that overflow residential areas to areas over more compatible land uses. The EA involved extensive coordination with, and presentations to, the MIA Noise Abatement Task Force members.

**Miami International Airport, Noise Barrier Analysis, Miami, Florida.** Project Manager/Lead Noise Modeler for the assessment of a sound barrier wall running the length of the airport's southern property boundary. Mr. Alberts developed the approach to the analysis that included assessing sound levels from aircraft departures, arrivals, taxiing, and aircraft utilizing reverse-thrust following touch-down. Mr. Alberts prepared all the technical modeling, and conducted sound level measurements on-airport both adjacent to the south runway and in the residential areas south of the airport.

**Miami International Airport, Noise Monitor Terminals Site Selection Study, Miami, Florida.** Deputy Project Manager for the study that determined potential sites for 20 permanent noise monitor terminals surrounding Miami International Airport.

**Miami-Opa locka Executive Airport, Noise Monitor Terminals Site Selection Study, Opa-locka, Florida.** Project Manager for the study that identified the location of 18 candidate sites for the placement of six new permanent noise monitor terminals in the vicinity of the airport.

**Miami Executive Airport Runway Extension Environmental Assessment, Miami, Florida.** Project Manager/Lead Noise Modeler for the study that included a major runway extension at this reliever to Miami International Airport. The project included a 550-foot extension to the east end, and a 1,798-foot extension to the west end of the primary runway at the airport.

**Miami International Airport, Runway 27 Noise Analysis, Miami, Florida.** Deputy Project Manager/Lead Noise Modeler for the project that included the elimination of the existing 1,270-foot threshold displacement on Runway 27 and re-establish the End-of-Runway (EOR) threshold at MIA.

**Jacksonville Executive at Craig Airport, Operational Noise Mitigation Alternatives Analysis, Jacksonville, Florida.** Lead Noise Modeler for the airport's first comprehensive noise mitigation study. The study resulted in the implementation of five new arrival and six new departure paths that reduced noise exposure on the surrounding close-in residential areas. Mr. Alberts was responsible for modeling the modified flight paths and documenting the change in noise exposure resulting from the voluntary program.

**Destin Airport, Noise Assessment Services, Destin, Florida.** Project Manager/Lead Noise Modeler for a proposed fixed based operator at the airport. Mr. Alberts developed the technical approach to the analysis, which focused on ramp and taxiway noise, and made recommendations to the developer as to how to modify the plans in order to reduce noise impacts to the adjacent homes.

**Gainesville Regional Airport, FAR Part 150 Noise and Land Use Compatibility Study, Gainesville, Florida.** Lead Noise Modeler for the Noise Exposure Maps Update. At the time of the study, the airport was home to an Eclipse Aviation maintenance facility. Mr. Alberts prepared the existing and future noise contours and made presentations to the study's advisory committee and at public workshops.

**LaGuardia Airport, FAR Part 150 Noise and Land Use Compatibility Study.** Mr. Alberts is currently leading the effort on the first ever FAR Part 150 Noise Study at LaGuardia Airport. He is preparing the existing and future DNL noise contours, the Noise Exposure Maps Report and is presenting technical noise information to the Study's Technical Advisory Committee. Mr. Alberts will also be leading the Noise Compatibility Program for this study.

**Orlando Sanford International Airport, FAR Part 150 Noise and Land Use Compatibility Studies, Sanford, Florida.** Project Manager/Lead Noise Modeler for the comprehensive noise studies in 2001, 2005, and 2010. The airport is served by scheduled domestic and international air carrier service and is home to several flight schools.

**Southwest Florida International Airport, FAR Part 150 Noise and Land Use Compatibility Study, Ft. Myers, Florida.** Project Manager/Lead Noise Modeler for the study that included noise analysis associated with a planned second runway at the airport. The study involved using DNL along with and a number of supplemental noise metrics, Time Above (TA), Lmax, and Number-of-events-above (NA) in developing a long-term aircraft noise overlay zone surrounding the airport.

## Clint Morrow

### Senior Environmental Engineer



Mr. Morrow has 14 years of experience addressing the environmental impacts of transportation systems. He has led consulting and research studies with a focus on aircraft noise assessments and environmental modeling. Mr. Morrow has conducted noise modeling and measurements for numerous airports, airspace redesign studies, and environmental research programs. He is an expert in the following noise models: AEDT, INM, NIRS, NoiseMap, RNM, and NMSim. He is also experienced in the operation of airport Noise and Operations Monitoring Systems (NOMS). Mr. Morrow has extensive experience developing documentation for Part 150 and NEPA studies and conducting related public outreach. In addition to his technical expertise, he also serves in project management and marketing roles.

#### Expertise

Noise assessments for 14 CFR Part 150 studies, airport Environmental Assessments, and Environmental Impact Statements

#### Years of Experience

14 years (3 years with KBE)  
Private Consulting

#### Education

BS, 2001  
Mechanical Engineering  
University of Maryland

#### Representative Projects & Services

**St. Petersburg-Clearwater International Airport Noise/Airspace Study.** Mr. Morrow was project manager for an update of noise exposure maps and a community involvement program. The noise study included INM modeling and supplemental noise metrics, as well as noise monitoring conducted at 12 sites surrounding the airport. A combination of noise modeling and measurements were used to assess the impacts of a proposed “offset” approach procedure to the airport which would change noise exposure levels. Supplemental noise metrics were used to engage with the public and ultimately show that the proposed procedure would result in a net improvement in noise exposure.

**LaGuardia Airport Part 150 Study.** Mr. Morrow is conducting noise modeling analysis and development of Noise Exposure Maps for the Port Authority of New York and New Jersey. He is also involved in public workshops and stakeholder collaboration in support of the Noise Compatibility Program. This study is being conducted simultaneously with the JFK International Airport Part 150 Study.

**Boston Logan Airport Noise Study.** Mr. Morrow managed the noise modeling analysis for the largest FAA-funded airport noise study ever conducted. This study consisted of advanced noise modeling procedures including supplemental metrics, taxi noise, and custom flight profiles. A novel approach using both INM and NIRS was developed as part of the Noise Analysis Protocol, a first-of-its-kind document developed for the project in close coordination with FAA Office of Environment and Energy and Air Traffic Organization Environmental Programs Office. In addition, Mr. Morrow participated in an intensive community engagement process including community representatives, FAA officials, and airport personnel. Supplemental noise metrics were used to better communicate the impacts of noise-abatement alternatives in terms of the potential for sleep disturbance.

*Mr. Morrow has led innovative noise assessments for airports with complex land use and airspace constraints. He has worked closely with FAA officials to develop novel noise modeling approaches, considering not only the immediate airport environment, but the impacts of air traffic changes beyond 65 DNL contours.*

**San Antonio International Airport Noise Exposure Map Update.** Mr. Morrow was project manager for a Noise Exposure Map update study. He led a team of noise analysts and public relations consultants. The team held a public workshop with over 200 attendees, a public hearing, and supported the airport at a city council meeting. Most notably, the project was completed and the Noise Exposure Maps were approved within a demanding 5-month schedule to meet an FAA funding deadline.

**Philadelphia International Airport Noise Compatibility Program Update.** Mr. Morrow was technical manager for update of the PHL Noise Exposure Maps and Noise Compatibility Program. This study included extensive noise measurements conducted at 25 sites across 3 states for 2 weeks, which were used to validate the INM model and the airport's noise and operations monitoring system. This study also included modeling of baseline and multiple noise-abatement alternatives using INM. Public workshops were conducted at multiple locations throughout the greater Philadelphia area.

**Memphis International Airport Noise Exposure Map Update.** Mr. Morrow is the task lead for a noise monitoring program being conducted as part of an on-going Noise Exposure Map update study. He is leading the planning and execution of over-night noise measurements at six sites in the airport vicinity. The measurement data will be used to conduct validation of the baseline NEM contours in accordance with SAE Aerospace Recommended Practice 4721, *Monitoring Aircraft Noise and Operations in the Vicinity of Airports*.

**Washington Dulles International Airport Environmental Impact Statement.** Mr. Morrow supported the EIS for a new runway at Washington Dulles International Airport by conducting noise modeling analysis using supplemental noise metrics. These metrics were used to communicate noise impacts to the public at workshops and hearings. This analysis was also used to show that the operation of the new runway would not significantly affect sleep disturbance levels in the communities surrounding the airport.

### ***Additional Airport Noise Studies***

- Louisville International Airport Noise Compatibility Program
- George Bush Intercontinental Airport Noise Exposure Map Update
- Houston William P. Hobby Airport Categorical Exclusion Study
- Ronald Reagan Washington National Airport Noise Exposure Map Update Study
- Minneapolis-St. Paul International Airport Community Noise Study
- Toronto Pearson International Airport Noise Study
- Vancouver International Airport Noise Study
- Manchester-Boston Regional Airport Sound Insulation Program
- Lehigh Valley International Airport Sound Insulation Program
- Danbury Municipal Airport Noise Compatibility Program
- Martin County Airport Noise Exposure Map Study
- Ohio State University Airport Environmental Assessment
- Chesterfield County Airport Environmental Assessment
- Carroll County Airport Environmental Assessment
- Rochester International Airport Master Plan Update
- Brownsville/South Padre Island International Airport Environmental Assessment
- Shenandoah Valley Regional Airport Master Plan
- Sierra Blanca Regional Airport Master Plan Update



## **Publications and Professional Qualifications**

**Member**, SAE International Committee on Aviation Noise and Emissions Measurement and Modeling (A-21)

**Member**, Airport Council International (ACI) Environmental Affairs Committee Noise Working Group

**Member**, FAA Aviation Environmental Design Tool (AEDT) Design Review Group

**Instructor**, ACI-NA/ACC Airport Planning & NEPA Workshop, FAA Order 1050.1F Desk Reference, December 2015

**Instructor**, University of California Symposium on Aviation Noise and Air Quality, Noise 101 Course, March 2015

**Instructor**, ACI-NA/ACC Airport Planning & NEPA Workshop, Airport Noise and Air Quality Course, December 2013

**Instructor**, Institute of Noise Control Engineering (INCE) Short Course in Aircraft Noise Modeling, 2010

**Author**, "Boston Logan Airport Noise Study (BLANS) – A Case Study in the Effective Use of Supplemental Metrics and Tools." Proceedings of NOISE-CON 2008, Dearborn, Michigan. July 2008

**Author**, "Simultaneous Improvements in Environmental Performance and Operational Efficiency Enabled by Significantly Quieter Aircraft." AIAA-ATIO, Anchorage, Alaska. September 2008

## **KENNETH R. CARLSON, RA, AIA, LEED® AP**

### **Owner/President**

Kenneth R. Carlson - Architect, P.A.  
1166 East Newport Center Drive, Suite 311  
Deerfield Beach, FL 33442  
954/427-8848



**EDUCATION:** University of Illinois, Bachelor of Science in Architecture – 1974, including one year of international study in Versailles, France

**REGISTRATION:** Licensed Architect – Florida (AR0012546)  
– Colorado (ARC305238)

**ACCREDITATION:** LEED® Accredited Professional

**EXPERIENCE:** Founder of the firm Kenneth R. Carlson – Architect, P.A., Ken Carlson has more than 40 years of South Florida experience in architectural design, construction document development and construction administration.

Mr. Carlson has an extensive design background. Projects include airports, hangars, churches, schools: secondary, high school, and adult education facilities, commercial mixed-use office park projects, financial institutions, medical, retail, restaurants, manufacturing and industrial buildings to name a few. His experience allows him to view projects from a practical hands-on perspective. His knowledge of local construction practices, his understanding of building codes and cost trends empower him with the necessary skills to work with his client and the selected consulting engineers in developing a successful project.

Over the past 25 years, Mr. Carlson has designed over 11 million square feet of building space.

**AFFILIATIONS:** Mr. Carlson is a member of the American Institute of Architects (AIA), the National Fire Protection Association (NFPA), the national and local chapters of the U.S. Green Building Council (USGBC), the Congress for the New Urbanism (charter member), the International Code Council (ICC), and the Tilt-Up Concrete Association (TCA).



**STEVE TORP, R.A.**

**Senior Architect – Associate**

Kenneth R. Carlson – Architect, P.A.  
1166 West Newport Center Drive, Suite 311  
Deerfield Beach, FL 33442  
954/427-8848

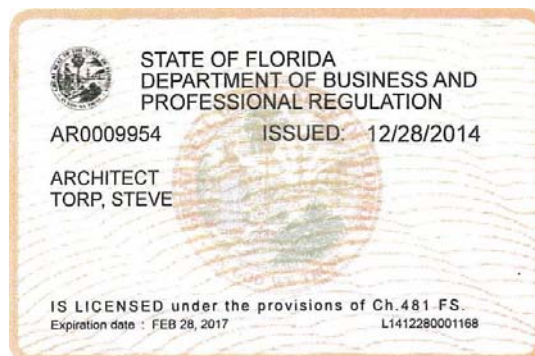


**EDUCATION:** Essex County College, Associate's Degree in Applied Science - 1972  
New York Institute of Technology, Bachelor of Architecture - 1976

**REGISTRATION:** Licensed Architect – Florida (AR00009954), California (20616), NCARB  
FL Certified General Contractor (CGC024675)

**EXPERIENCE:** Since May 1991, Steve Torp has been a Senior Architect at Kenneth R. Carlson – Architect, P.A. Mr. Torp has more than 39 years of experience in Architecture and is actively licensed in Florida and California and holds an active National Council of Architectural Registration Boards certificate. Mr. Torp also holds a current Florida General Contractor license and has had additional training as a certified masonry inspector, periodic building code updates, roofing codes and practice, as well as fire assembly training in maintaining licensure.

He has served as Senior Architect for a diverse range of commercial, industrial, educational, food service, medical, and residential developments from design development through punch list and project turnover, in both the private and public sectors, serving developers and private clients. His high architectural standards are demonstrated through his proficiency in design development, construction documentation, structural and mechanical systems, value engineering and contract administration including on site representation of our clients. His experience, expertise and flexibility contribute to the success of each project as witnessed by awards by our peers, news and media write-ups, and published projects.



## **ANDREW R. CARLSON**

Kenneth R. Carlson - Architect, P.A.  
1002 East Newport Center Drive, Suite 101  
Deerfield Beach, FL 33442  
954/427-8848



**EDUCATION:** May 2006, B.A., Architecture, Florida Atlantic University

**REGISTRATION:** Licensing currently ongoing - NAAB

**AFFILIATIONS:** USGBC So Florida Chapter Member  
TCA Certified Concrete Tilt Technician  
CPTED Certified, International CPTED Association Member

### **EXPERIENCE:**

#### **Kenneth R. Carlson – Architect, P.A., Deerfield Beach, FL**

January 2001 - Present

Job Captain. Work with the principal as an Architectural Designer. Serve as Job captain on various projects. Extensive experience with Fort Lauderdale International Airport, specifically Northside Hangar, Westside Hangar and Spirit Airlines training center. Also served as Project Manager for 8-hangar Master Plan for the north side of the Fort Lauderdale Executive Airport.

#### **Sam Brown Company Architects, Austin, TX**

January 1999 – December 2000

CADD draftsman and project manager. Worked with the office designer in generating all facets of design and construction documents. The office's major client was Whole Foods Market, I coordinated design and development. In addition, I was responsible for construction administration, detail specifications, and timeline developments for several large projects.

#### **Kenneth R. Carlson – Architect, P.A., Boca Raton, FL**

1997 – 1999

Work primarily encompassed computer-generated drawings with Auto CAD versions 12 and

14. For the most part, tasks entailed:

- Generation of working drawings for a wide variety of project types
- Floor plan layout, design, and detailed specifications
- Various section creations (wall sections, foundations, details, etc.)
- Reflected ceiling and HVAC layout and design
- Site plan layout and design
- Detailed electrical plan layout and design, including power calculations
- Various interior and exterior elevations
- Site measurements and as-built creation of drawings
- Various detailing and drafting that might have been needed for unique project requirements
- Color renderings of site plans and elevations (by hand)



## PROFESSIONAL EXPERIENCE

Mr. Raj Krishnasamy, P.E., President and Principal Engineer of Tierra South Florida, Inc. (TSF), is a Florida State registered Geotechnical Engineer with over 29 years of experience. Mr. Krishnasamy oversees the geotechnical engineering, construction materials testing, and inspection services operations. His experience consists of successfully completing over 2,500 public and private projects. He serves as Project Manager for continuing contracts with over 20 Florida public agencies. He has a history of repeatedly retaining those contracts through successful, cost-effective and prompt execution of each task order. Mr. Krishnasamy's daily involvement with the in-house and field operations of the construction and geotechnical services departments provides him the "hands-on" experience and knowledge of current construction codes and construction practices throughout the State of Florida. Mr. Krishnasamy and his highly experienced team focus on providing the client with a consistently accurate, cost-effective quality product that is delivered on time and within budget.

## KEY PROJECT EXPERIENCE

**North Regional Waste Water Treatment Plant Expansion, Pompano Beach, Florida** Performed a geotechnical engineering study for the expansion which included a Filter structure expansion, New Distribution Pumps, and New Filter Feed Pumps and Strainers. Field work consisted of Standard Penetration Test (SPT) borings. Provided geotechnical report summarizing subsurface conditions and groundwater information. Also provided geotechnical recommendations regarding site preparation with discussion of muck/organics found during site investigation, excavations, spread foundation, floor slab, pavement design, and lateral earth pressures (active, at-rest, and passive earth pressure) for below grade structures to be utilized by the design team.

**Septage Receiving Facility Improvements, Broward County Water and Wastewater Services, Pompano Beach, Florida** Performed a geotechnical engineering study. The containment structure was to house a septage receiving complete plant consisting of screening, aerated grit chamber, blowers, pumps and piping. Field work consisted of Standard Penetration Test (SPT) borings. Provided geotechnical recommendations for foundation and pavement design, soil parameters, and general site development.

**Lift Station 21, Pompano Beach, Florida** Performed geotechnical services for the construction of a submersible lift station with a hybrid in-line booster. Provided geotechnical discussion of subsurface and groundwater conditions. Also provided recommendations for shallow foundation design along with alternate recommendations (deep excavations, sheet piling, driven casing), and site clearing, fill/backfill placement.

**Drainage Improvement - NW 21<sup>st</sup> Street and 18<sup>th</sup> Avenue, Pompano Beach, Florida** Performed a geotechnical engineering study for the design of the proposed concrete footing to support the drainage pipe. Provided geotechnical recommendations which included information on allowable bearing pressures, settlement and other pertinent criteria for the foundation design.

**NE 27<sup>th</sup> Terrace Bridge Replacement, Pompano Beach, Florida** Performed a supplemental geotechnical engineering study for the proposed single span bridge over the Wisteria canal. TSF reviewed the geotechnical data from a previous study provided by the City as a part of the RFP package. Field work consisted of Standard Penetration Test (SPT) boring. During the field exploration, organic soils were encountered. TSF provided geotechnical engineering recommendations regarding foundation design and site preparation/muck removal. Also provided bearing capacity and settlement calculations along with soil parameters to be utilized for the sheet pile wall design and H-Pile Analysis. During construction, TSF completed vibration monitoring services to monitor and record the magnitude of vibrations resulting from the sheet pile vibration operations and determine if the vibrations have an impact on adjacent structures. As part of the vibration monitoring services, TSF performed a pre- and post-construction survey to evaluate existing structure conditions prior to driving piles. Additionally, TSF performed soil testing, concrete testing on slab approaches.

## RAJ KRISHNASAMY, P.E.

**PRESIDENT, PRINCIPAL ENGINEER**  
**29 Years of Experience**



## EDUCATION

MS in Geotechnical Engineering,  
University of Memphis 1995

BS in Civil Engineering, Christian Brothers  
University 1987

Diploma/1984/Electronic Engineering,  
Malaysian Air Force Institute

## PROFESSIONAL ORGANIZATION AND REGISTRATION

Professional Engineer: Florida, 53567

Certified OSHA Supervisor

Certified Environmental Consultant

## KEY PROJECT EXPERIENCE, Continued

**Indian Mound Park Jib Crane Pad, Pompano Beach, Florida** Performed geotechnical engineering study for the construction of concrete pad to support a jib crane located 4 feet from the concrete seawall. Provided geotechnical recommendations for deep foundation design and construction as well as allowable pile capacities.

**SW 36th Avenue Pedestrian Bridge and Path, Pompano Beach, Florida** Performed geotechnical engineering study for a new pedestrian bridge over a canal along 36th Avenue and about 5,000 linear feet of sidewalk. Field work consisted of Standard Penetration Test (SPT) borings. Provided geotechnical discussion of subsurface and groundwater conditions. Also provided recommendations for site clearing/preparation, path subgrade compaction, engineering fill, bridge foundation design (including ACIP pile design criteria), and excavations.

**Relocation of Taxiway Kilo, Pompano Beach Airpark, Pompano Beach, Florida** Provided geotechnical engineering services for the project which involved the relocation of Taxiway Kilo by 30 feet south of the existing Taxiway. Field work consisted of Standard Penetration Test (SPT) borings and pavement cores. California Bearing Ratio (CBR) tests were also performed on the field via a Dynamic Cone Penetrometer (DCP). Provided a geotechnical report discussing the subsurface conditions found, groundwater conditions at the site, and CBR and pavement core test results.

**Relocation of Taxiway Kilo, Pompano Beach Airpark, Broward County, Florida** Provided material testing and inspection services for the relocation of Taxiway Kilo. Services included providing engineering technician to pick-up samples for Proctor, sieve analysis, Atterberg Limit tests and organic content tests. Provided senior soil inspector during earthwork operations to test for compaction and monitor operations. Provided concrete testing during installation of lighting fixtures (cans) and provided asphalt inspections at the plant and in the field for compliance with FAA asphalt requirements.

**Pavement Fillet Widening, Pompano Beach Airpark, Broward County, Florida** Performed geotechnical engineering services for the widening of pavement fillets for aircraft movement. Field work consisted of Standard Penetration Test (SPT) borings and a pavement core. California Bearing Ratio (CBR) test was also performed on the field via a Dynamic Cone Penetrometer (DCP). Provided a geotechnical report discussing the subsurface conditions found, groundwater conditions at the site, and CBR and pavement core test results.

**Sewer Main, Pompano Beach Airpark, Broward County, Florida** Provided material testing services for the sewer main. TSF provided engineering technician to pick-up samples for Proctor, sieve analysis, Atterberg Limit tests and organic content tests. Also provided senior soil inspector during utility backfill operations to test for compaction and monitor operations.

**Master Drainage Plan, Pompano Beach Airpark, Broward County, Florida** Performed geotechnical engineering services for the drainage improvements. Field work consisted of Standard Penetration Test (SPT) borings. Provided a geotechnical report discussing the subsurface conditions found, groundwater conditions at the site. Also provided Green-Ampt parameters.

**Runway 15-33 Rehab, Pompano Beach Airpark, Broward County, Florida** Performed geotechnical engineering services for the proposed rehabilitation and extension of Runway 15-33. Performed pavement cores and base thickness determination, Standard Penetration Test (SPT) borings, a field California Bearing Ratio (CBR) test, and evaluated the stratigraphic and groundwater conditions at site. Provided a geotechnical report discussing the subsurface conditions, field LBR test results, groundwater conditions at the site, and pavement core test results.

**Water Service, Pompano Beach Airpark, Broward County, Florida** Provided material testing services for the project. Services included providing engineering technician to pick-up samples for Proctor, sieve analysis, Atterberg Limit tests and organic content tests. Also provided senior soil inspector during utility backfill operations to test for compaction and monitor operations.

**RAJ  
KRISHNASAMY,  
P.E.**

**PRESIDENT, PRINCIPAL ENGINEER  
29 Years of Experience**

**Page 2 of 2**

## PROFESSIONAL EXPERIENCE

Mr. Vedula, a Florida-Registered Professional Engineer, has over 20 years of experience providing engineering services for a wide variety of geotechnical projects involving foundation design, slope stability analysis, WEAP analysis and interpreting PDA reports, excavation support, and construction inspection. His extensive experience includes foundation inspections (shallow and deep foundations), soil modification (dynamic compaction, stone columns), preloading, excavations, backfilling, and post construction monitoring. Mr. Vedula has served as a principal inspector on numerous surcharging and settlement evaluations of organic laden soils assignments. His project experience includes 300+ geotechnical engineering studies for various projects types including parks, piers, shoreline stabilization, dredging, bridges, roadways, utilities, high rise buildings, schools and government facilities. Mr. Vedula has authored and co-authored papers published in national and international publications.

## KEY PROJECT EXPERIENCE

**I-75 Express Lanes Segment A/B from NW 170th Street to South of Miramar Parkway, Broward & Miami-Dade Counties, Florida** Geotechnical Foundation Design Engineer of Record (GFDEOR) for the project. Performed a geotechnical study for the design and construction of Segments A&B of the I-75 Express Lanes Project which extend from just north of NW 170th Street in Miami-Dade County at milepost 3.485 to approximately 2,400 feet south of Miramar Parkway in Broward County at milepost 1.080, for a total distance of approximately 3.1 miles. The project also includes reconstruction, widening, and milling and resurfacing of the HEFT mainline from 1.45 miles south to 1.13 miles north of I-75 to accommodate the Express Lanes Median to Median Direct Connect between I-75 and the HEFT, as well as other interchange ramp connections. This corridor includes fourteen (14) bridge structures, several associated MSE Walls, about 20,000 linear feet of sound walls, Toll Gantries, CCTV poles, High Mast Light Poles, and Overhead Sign Structures. Provided pile design for bridges, and design parameters for sound walls, poles, and sign structures. Currently providing pile driving inspections and auger cast pile inspections for sound walls, and foundation certifications for bridges and sound walls.

**Dania Cutoff Canal Deepening, Port Everglades, Florida** Performed a limited pre-dredge soil sampling and analysis for the Dania Cutoff Canal Deepening Project in Port Everglades-Broward County, Florida. Provided a Pre-Dredge Soil Sampling and Analysis Report summarizing the findings.

**Wiles Road from Rock Island Road to US 441, Broward County, Florida** Performed a geotechnical engineering study for the widening of the Wiles Road from Rock Island Road to US 441 as well as the installation of mast arms and school flashers for the widening. Provided geotechnical recommendations for embankment construction, temporary side slopes, pavement design and on-site soil suitability.

**Pine Island Road-Southbound Lanes Existing 36-inch Force Main and Gas Main Evaluation, Broward County, Florida** Performed a geotechnical engineering study for the Pine Island Road-Southbound lanes existing 36-inch force main and gas main evaluation. Field work included excavating 13 test pits along the existing force main alignment and 21 test pits along the existing gas main alignment. Provided the designer with options on how to install the roadway over the pipe with a potential for minimal coverage and confirmed that existing shallow subsurface soils encountered in the test pits were suitable for supporting the proposed roadway construction after proper subgrade preparation. In addition, conducted a series of laboratory tests to better classify the type of existing backfill soils.

## KUMAR VEDULA, P.E.

**PRINCIPAL GEOTECHNICAL  
ENGINEER**

**20 Years of Experience**



## EDUCATION

MS in Geotechnical Engineering,  
University of Memphis, 1995

BE in Civil Engineering, Andhra University,  
1992

## PROFESSIONAL ORGANIZATION AND REGISTRATION

Professional Engineer: Florida, 54873  
American Society of Civil Engineers, Past  
President (Broward Branch)

## KEY PROJECT EXPERIENCE, Continued

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

**West Lake Improvement, Fort Lauderdale, Florida** Performed geotechnical services for confirmatory subsurface investigation performed in the Intracoastal Water Way (ICWW) for the proposed improvement along the West Lake Park Shoreline. The purpose of the study was to investigate the subsurface conditions in the ICWW at requested locations where timber piles were to be utilized along the shoreline for the rip rap and determine the depth of unsuitable material (if any). Provided geotechnical recommendations including pile installation recommendations (pre-drilling holes, fill for annular spaces, steel shoe tips for drivability purposes, etc.)

**International Swimming Hall of Fame, Fort Lauderdale, Florida** Performed a geotechnical engineering study for the development of a 5 story structure with swimming pool and grand stand at the roof level. At the time of the study, the site was currently occupied by two swimming pools, 1 to 2 story structures, and associated driveway and parking lot. Field work included BoreHole Permeability (BHP) tests, pavement cores, and Standard Penetration Test (SPT) borings. Provided geotechnical recommendations regarding foundation design, including Augercast-In-Place piles, ground floor slab, below grade walls, utilities, construction excavation and dewatering.

## ABBREVIATED KEY PROJECT EXPERIENCE

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- Dania Jai Alai Redevelopment, Dania Beach, Florida
- North Regional Wastewater Treatment Plant, Broward County, Florida
- Broward Health – Medical Office Building (3-story), Fort Lauderdale, Florida
- N Course Drive Sewer Main, Pompano Beach, Florida
- Sub Basin NW 1-3 - Drainage, Pompano Beach, Florida
- North Broward Preparatory School Athletic Center, Coconut Creek, Florida
- Coral Springs Aquatic Center, Coral Springs, Florida
- Palm Club Sewer, Lauderdale By The Sea, Florida
- Sub Basin NC 2-1 - Drainage, Pompano Beach, Florida
- Imperial Point Medical Center Expansion, Fort Lauderdale, Florida
- Neighborhood Water & Sewer Improvement - UAZ, Broward County, Florida
- Drainage Improvement - NW 21st Street and 18th Ave., Pompano Beach, Florida
- 48-inch Force Main between Atlantic Blvd. and Lyons Rd., Broward County, Florida
- Lauderdale by the Sea - Drainage Improvements, Broward County, Florida
- North Andrews Neighborhood #4, Broward County, Florida
- Coral Springs Medical Center, Emergency Room Expansion, Coral Springs, Florida
- County Line Road-Drainage, Sewer, Water, & Grading/Paving, Parkland, Florida

**KUMAR VEDULA,  
P.E.**

**PRINCIPAL GEOTECHNICAL  
ENGINEER**

**20 Years of Experience**

**Page 2 of 2**



## Section 7. References

### Pompano Beach Air Park – General Engineering Consulting Services

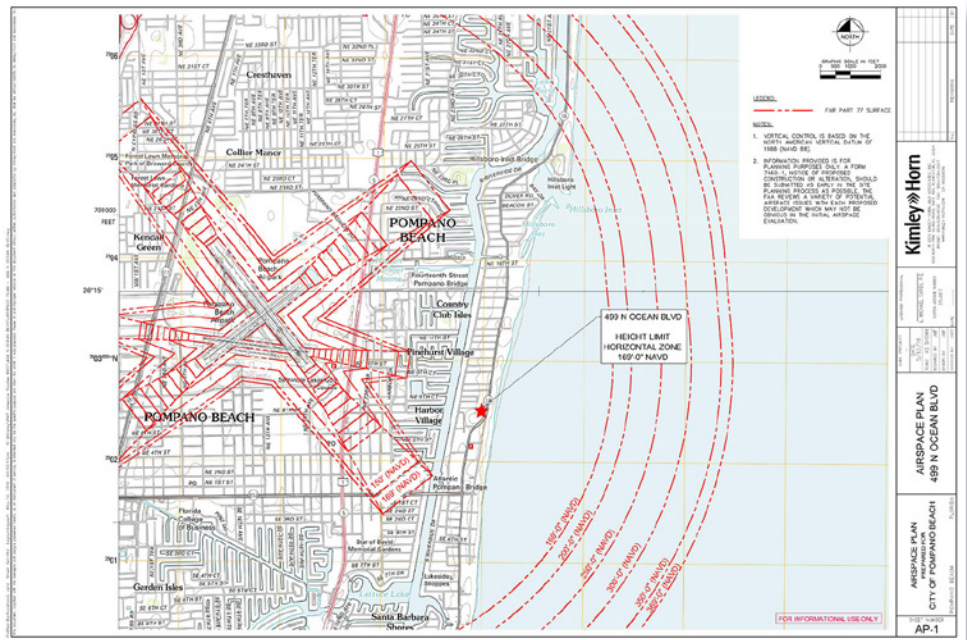
#### **Scope:**

Kimley-Horn has provided services on a variety of task over the past several years for the City of Pompano Beach. Our services have included general consulting as-needed support as well as project specific tasks. Highlighted projects are provided below.

#### **Respondent's responsibilities:**

*Various Airspace Study Checklist and FAA Form 7460 Reviews and Submittals on Behalf of the City*

Working with the City, Kimley-Horn has been able to obtain airspace approval for ball field lighting in the community park, a new maintenance facility located on the airfield and have worked with developers intending to build facilities at the Air Park and throughout the City of Pompano Beach.



#### **Airport Layout Plan Update**

The ALP was last updated by Kimley-Horn in 2008. From 2009 to 2016, the Air Park had undergone several new construction projects, including a taxiway relocation, tenant expansions, and new tenant facilities. The City asked Kimley-Horn update the ALP to better reflect the current Air Park facilities. Kimley-Horn first compiled a library of design and as-built drawings from recent construction. This portion of the work went quickly, as Kimley-Horn had been involved with most of the construction projects from 2009 to 2016. Kimley-Horn then reached out to its contacts at Broward County to obtain the latest Geographical Information System (GIS) data the County had about the Air Park. Kimley-Horn then took all of this information and rebuilt the ALP map from scratch. The result was a comprehensive ALP update utilizing the latest and most accurate information available at a fraction of the cost needed to do a full topographic survey of the airfield.

#### **Taxiway G Grant Assistance**

Kimley-Horn completed design of the Extension of Taxiway G in mid-2015. After discussions with the FAA's district office revealed that the project was a low priority for funding, the City asked Kimley-Horn to produce a brochure demonstrating the project's benefits to air travel and the surrounding community. The key to the brochure was explaining complex aviation concepts to the public. Kimley-Horn identified fifteen safety enhancements included in the project. Then, they went to the Air Park's tenants and air traffic control tower and obtained signed letters in support of the projects. Finally, they analyzed the Air Park's noise contour map and showed how the project would reduce noise in the surrounding community, a big concern for the local residents and voters. Once the brochure was completed, Kimley-Horn identified likely advocates in the State and Federal legislatures. They reached out to their staffers and educated them about the benefits of this project not captured in the FAA's assessment criteria. The project is currently on a short list for FDOT funding.

### *Air Park Business Plan*

The Business Plan for the Air Park was prepared by Ricondo & Associates and Kimley-Horn for the City to assist in the planning and programming for capital investment, management, and land use decision-making as it relates to the City's overall strategic plan for the Airport. The recommendations resulting from the analysis, as presented in this report, seek to establish a financial framework for the Airport that may be used as the Airport develops its strategic objectives and optimize overall financial performance. The Team prepared the Business Plan for the following purposes:

- To develop projections of the Airport's financial position utilizing key assumptions including existing and anticipated leases, revenue enhancement options, and impacts of future development, capital projects, and inflation to allow for sound management and planning of future operations. Evaluation of additional revenue sources supported the City's objective to not increase noise at the Airport.
- To review and formulate a funding plan for the Airport's Capital Improvement Program (CIP).
- To assess, at a high level, the performance of the Airport relative to comparable benchmark airports.
- To estimate the economic impact of activities carried out at the Airport by the various tenants and general aviation visitors.

### *Wildlife Hazard Assessment and Wildlife Hazard Management Plan*

Kimley-Horn is conducting the Wildlife Hazard Assessment (WHA) and Wildlife Hazard Management Plan (WHMP). Services include wildlife surveys for 12 months and preparing the WHA for FAA review and approval. This study is currently on-going. Following completion of the surveys and WHMP will be prepared and coordinated with the Air Park with recommendations for minimizing wildlife hazards on the airport.

*Cost:* \$471,000 in contract services over 10 years

*Reference Contact:*

Mr. Steven Rocco – Air Park Manager

[Steve.rocco@copbfl.com](mailto:Steve.rocco@copbfl.com)

(954) 786-4135

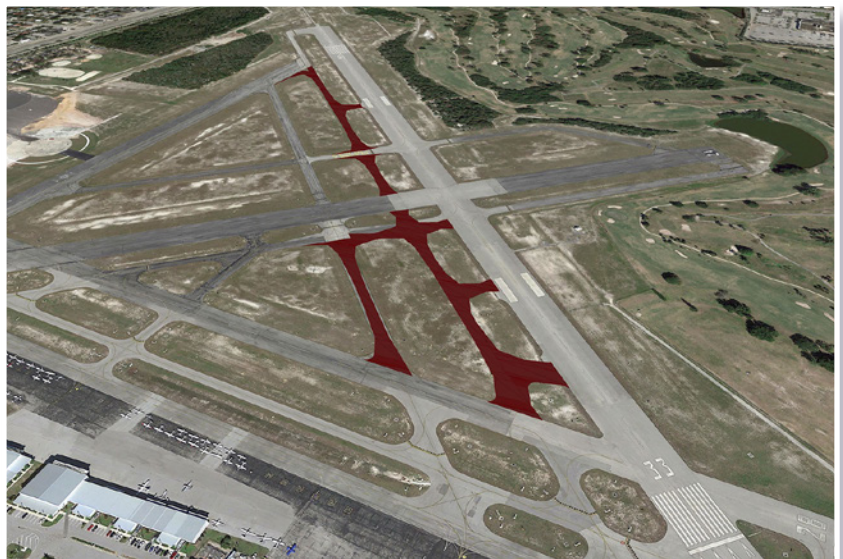
## **Pompano Beach Air Park, Relocation of Taxiway G and RIM Improvements**

### **Scope:**

Taxiway D is the only parallel taxiway serving primary Runway 15-33. Its current layout violates several Advisory Circular minimum separation rules and contains several 'hot spots' identified by the FAA.

### **Respondent's responsibilities:**

The City of Pompano Beach selected Kimley-Horn to relocate Taxiway G to an acceptable separation from the runway and correct dangerous taxiway intersection geometries. Kimley-Horn provided design, bidding, site development, and construction phase services for the project. Tasks include burrowing owl and gopher tortoise site surveys, development of plans, permitting assistance, and bid assistance. Kimley-Horn leveraged its knowledge of the Air Park's master plan and operation patterns to minimize closure duration of the primary runway while keeping the overall construction duration to a minimum.



As part of the project, Kimley-Horn updated the airfield's signage and lighting to meet Engineering Brief No. 89 standards while allowing for the addition of two future taxiway connectors.

*Cost:* \$220,000 design / \$4.6 million construction

*Reference Contact:*

Mr. Steven Rocco – Air Park Manager

[Steve.rocco@copbfl.com](mailto:Steve.rocco@copbfl.com)

(954) 786-4135

## Relocation of Taxiway K at the Pompano Beach Air Park

### **Scope:**

Taxiway K did not meet the minimum separation distance from Runway 10-28. The City selected Kimley-Horn to provide design and construction phase services to relocate Taxiway K away from the runway.

### **Respondent's responsibilities:**

Kimley-Horn completed the design and provided construction phase services for the relocation of Taxiway K at the Air Park. This was the first federally funded project at the Airport in many years. The project included the relocation of Taxiway K to meet current FAA design standards. The taxiway is parallel to Runway 10-28 and is integral to the flow of traffic into and out of the south side of the Air Park. Runway 10-28 is the critical cross-wind runway and is adjacent to nearly all of the Air Park's tenants.

*Cost:* \$5 million construction

*Reference Contact:*

Mr. Steven Rocco – Air Park Manager

[Steve.rocco@copbfl.com](mailto:Steve.rocco@copbfl.com)

(954) 786-4135

## Goodyear Hangar Expansion at the Pompano Beach Air Park

### **Scope:**

The Goodyear Hangar at PMP is home to the iconic Goodyear blimp. When it began showing its age, Kimley-Horn was selected to evaluate the site condition and design the rehabilitation and enhancement of the hangar property. Kimley-Horn was selected to see the project through permitting, bid phase, and design phase.

### **Respondent's responsibilities:**

The project included adjusting the landside parking/drive to accommodate new support equipment, increasing the airside mooring circle to accommodate the new Airship, increasing the size of the maneuvering apron to accommodate the new Airship, and regrading the area south of the building to alleviate flooding.

*Cost:* \$5 million construction

*Reference Contact:*

Mr. Ken Carlson – Project Manager and Architect

[kenc@kencarlson.com](mailto:kenc@kencarlson.com)

(954) 427-8848





## North Airfield Rehabilitation at Fort Lauderdale International Airport

### **Scope:**

Kimley-Horn was selected by the Broward County Aviation Department for the rehabilitation of Runway 10L-28R and other airfield pavements at Fort Lauderdale-Hollywood International Airport (FLL). Improvements will include runway pavement rehabilitation, taxiway geometry reconfiguration, lighting and signage upgrades, EMAS replacement, and blast fences.

### **Respondent's responsibilities:**

Before commencing design, Kimley-Horn executed a thorough Program Verification Phase which sought to prescribe minimum and preferred rehabilitation methods for each unique pavement section. Work associated with

this phase included visual inspections, geotechnical investigations, non-destructive testing, profilograph analysis, and traffic route modeling. Based on the data gathered, Kimley-Horn developed a matrix of five rehabilitation alternatives with seven unique evaluation criteria. Kimley-Horn performed a life cycle cost analysis and cost-benefit analysis which allowed the Airport to choose the rehabilitation method that best optimized the available funds.

Kimley-Horn also conducted a detailed evaluation of airfield geometry and conformity with the most current airfield design standards along with an assessment of the four designated hotspots and development of mitigation alternatives to address safety related concerns. The study reviewed the geometry of twenty five taxiways connecting to the alignment of Runway 10L/28R. Each proposed file improvement was assessed based on operational utilization of the associated movement, resulting in the saving of millions of dollars in additional work.

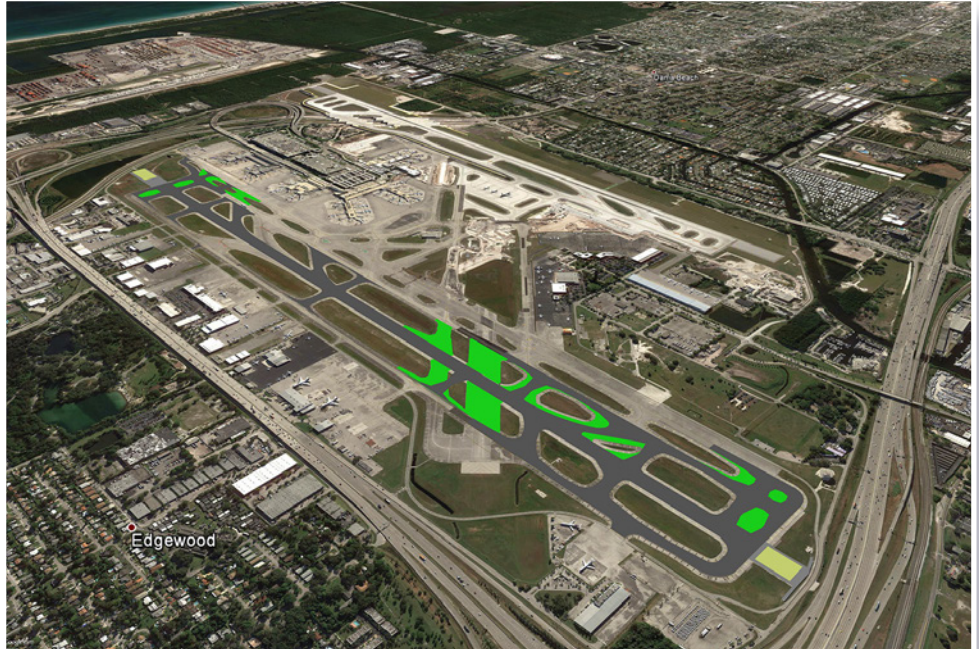
*Cost:* \$1.2 million design / \$30 million construction

### **Reference Contact:**

Mr. Gasser Dougé – Project Manager

[gdouge@broward.org](mailto:gdouge@broward.org)

(954) 359-6973



## Taxiways C and D Rehabilitation at Fort Lauderdale Executive Airport

### **Scope:**

Taxiways C, D, and their connectors were showing severe signs of longitudinal and transverse cracking, depressions, and weathering. Kimley-Horn was retained to provide design services for the rehabilitation of 1,985 linear feet of Taxiway Charlie and 1,620 linear feet of Taxiway Delta. The project consisted of milling and overlaying existing bituminous pavements, grade correction, striping, and replacing all edge lighting with LED lights.

### **Respondent's responsibilities:**

Kimley-Horn began by coordinating a comprehensive investigation effort with its team of subconsultants ranging from surveyors to pavement profile readers. Once the field investigation was complete, the information was compiled and a



rehabilitation program was established. Careful construction phasing was also required as access to fixed base operator ramps and the Customs ramp needed to be maintained during daylight hours. Construction commenced in the summer of 2012 and completed on time with no change orders.

*Cost:* \$300,000 design / \$4.5 million construction

*Reference Contact:*

Mr. Rufus James – Airport Manager  
[rjames@fortlauderdale.gov](mailto:rjames@fortlauderdale.gov)  
(954) 828-4968



## Watson Island Air Transportation Facility, Miami

### **Scope:**

Kimley-Horn was selected by the City of Miami to master plan and provide permitting assistance to the City for the redevelopment of the Watson Island Air Transportation Facility. Watson Island is an existing facility which has seen little use, beginning when the heliport was closed several years ago. Kimley-Horn was tasked with updating the Airport Layout Plan (ALP) set with a new site plan layout and updated design aircraft (seaplanes and helicopters), as well as a new terminal areas plan.

### **Respondent's responsibilities:**

In order to reopen the heliport, Kimley-Horn developed new traffic patterns and arrival and departure procedures for the facility. In accordance with Florida Statute, coordination was required with all aviation facilities within three nautical miles of the heliport. The team developed a Memorandum of Understanding with these facilities. An FAA Form 7480-1, Notice of Landing Area Proposal was completed and submitted to the FAA for review and approval along with the updated ALP set. A Florida Department of Transportation (FDOT) Public Airport Site Application was approved. Kimley-Horn performed the design of the helipads and support landside facilities and followed up with construction phase services.

*Cost:* \$200,000 design / \$1,000,000 construction

*Reference Contact:*

Mr. Aldo Bustamante - Senior Project Representative  
City of Miami  
[abustamante@ci.miami.fl.us](mailto:abustamante@ci.miami.fl.us)  
(305) 416-1436

## Subconsultant References

### Hillers Electrical

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#### Fort Lauderdale Executive Airport

##### **New Airfield Lighting Control and Monitoring System**

Included new airfield lighting control and monitoring system in airfield vault and FAA ATCT, coordination with FAA Air Traffic and FAA new ATCT Project Managers, new current regulators for Taxiway EE and EW to make room for new control system cabinet, modifications to existing airfield electrical vault.

*Electrical Design Estimate:* \$500,000

Project is currently under design; Design began December 2013 and is scheduled to bid in March/April 2014.

##### **Taxiway Echo Pavement Rehabilitation**

New taxiway lighting and signage system for the Taxiway Echo geometry changes. Included new taxiway edge lighting, new mandatory and guidance signage, relocation of existing elevated runway guard lighting system, new electrical circuit conductors and conduit systems

*Electrical Design Estimate:* \$1.3 million

Design began Feb. 2013; Project has not gone to construction

##### **Taxiway Golf Relocation**

New taxiway lighting and signage system for the Relocation of existing Taxiway Golf. Included new taxiway edge lighting, new mandatory and guidance signage, relocation of existing elevated runway guard lighting system, new electrical circuit conductors and conduit systems

*Electrical Design Estimate:* \$100,000

Project is in Construction; Design began Dec. 2012

##### **Taxilane Charlie Rehabilitation of Airfield Lighting**

Included new taxiway edge lighting, new guidance signage, new electrical circuit conductors and conduit systems

*Electrical Design Estimate:* \$500,000

Project is in Construction; Design began July 2011

##### **Pavement Rehabilitation of Taxiway Charlie and Delta**

Included new taxiway edge lighting, new guidance signage, new electrical circuit conductors and conduit systems

*Electrical Design Estimate:* \$245,000. *Construction:* \$185,000

Design began January 2011; Construction completed October 2012

##### **New 6150 ft. Taxiway "A" Electrical & Lighting & Signage Systems and FAA NAVAID Duct Banks and Conductor Control Systems**

Included all new lighting fixtures, conduit and conductors systems, FXE and FAA duct banks systems, new airfield signage for new taxiway and affected. Also included the new airfield lighting control system with new L-821 Panel in Tower, L-841 transfer panel in vault and an L-854 Radio controller, new 800A normal and emergency power electrical systems with a new 700Kw emergency generator, all new current regulators for the airfield electrical vault.

*Electrical construction cost:* \$1.7 million

Project completed 2009

### **Complete Airfield Electrical & Lighting Systems Replacements and Airfield Signage Systems Replacement**

Included all new lighting fixtures, conduit and conductors systems, duct banks, 2 REIL systems, 4 PAPI systems, 3 land and hold short light bar systems for 2 runways and 7 taxiways. The replacement of all airfield signage for complete airfield. Also included the new airfield lighting control system with new L-821 Panel in Tower, L-841 transfer panel in vault and an L-854 Radio controller, new 800A normal and emergency power electrical systems with a new 700Kw emergency generator, all new current regulators for the airfield electrical vault.

*Electrical construction cost:* \$ 2 million

Project completed 2009

**Client Reference:** Mr. Fernando Blanco, Aviation Engineering Manager, (954) 828-6536

### **PBIA Runway 10L-28R Pavement Rehabilitation, Palm Beach International Airport, West Palm Beach, FL**

Hillers Electrical Engineering, Inc. provided design services for Runway 10L-28R (10,000 ft.), (22) taxiway connectors electrical and lighting systems, (300) in-pavement lighting fixtures, guidance signage, FAA MALSR system, airfield lighting vault electrical and airfield lighting computer control monitoring system modifications, (8) runway guard lighting bar systems and (3) LAHSO systems. Hillers also provided construction administrative services which included shop drawings, RFI responses, and onsite full-time construction services.

*Estimated Electrical Construction Cost:* \$3 million

*Begin Date:* 2011 / *Completion Date:* 2013

*Owner:* Palm Beach County Department of Airports  
Ms. Cynthia Portnoy, P.E., Project Manager  
*Office:* (561) 471-7411  
[cportnoy@pbia.org](mailto:cportnoy@pbia.org)

## **KB Environmental Sciences**

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### **Miami Executive Airport, Noise Evaluation of Aircraft Operational Procedures, Miami, FL**

Mike Alberts served as the Project Manager/Lead Noise Modeler for the comprehensive noise study that involved the analysis of 24 procedures that had the potential to reduce aircraft noise exposure on the surrounding communities. The study was prepared at the request of the local communities. Fifteen of the procedures were recommended for implementation.

*Reference:* Mr. Norman Hegedus  
Section Chief GA Airports, Noise Abatement & Wildlife  
Miami-Dade Aviation Department  
(305) 876-0464  
[nhegedus@miami-airport.com](mailto:nhegedus@miami-airport.com)

*Cost (Est.):* \$110,000

### **Miami-Opa locka Executive Airport, Noise Evaluation of Aircraft Operational Procedures, Opa-locka, FL**

Mike Alberts served as the Project Manager for the comprehensive noise study that involved the analysis of noise abatement procedures that had the potential to reduce aircraft noise exposure on the surrounding communities. The final recommended procedures were developed with input from the citizen members of the Miami-Opa locka Executive Airport Noise Abatement Task Force.

*Reference:* Mr. Jeff Bunting  
Division Director, General Aviation Airports Maintenance  
Miami-Dade Aviation Department  
(305) 876-0569  
[jbunting@miami-airport.com](mailto:jbunting@miami-airport.com)

*Cost (Est.):* \$50,000

### **Miami International Airport, Noise Barrier Analysis, Miami, FL**

Mike Alberts served as the Project Manager/Lead Noise Modeler for the assessment of a sound barrier wall running the length of the airport's southern property boundary. Mr. Alberts developed the approach to the analysis that included assessing sound levels from aircraft departures, arrivals, taxiing, and aircraft utilizing reverse-thrust following touch-down. Mr. Alberts prepared all the technical modeling, and conducted sound level measurements on-airport both adjacent to the south runway and in the residential areas south of the airport.

*Reference:* Mr. Norman Hegedus  
Section Chief GA Airports, Noise Abatement & Wildlife  
Miami-Dade Aviation Department  
(305) 876-0464  
[nhegedus@miami-airport.com](mailto:nhegedus@miami-airport.com)

*Cost (Est.):* \$70,000

### **Miami Executive Airport Runway Extension Environmental Assessment, Miami, FL**

Mike Alberts served as the Project Manager/Lead Noise Modeler for the study that included a major runway extension at this reliever to Miami International Airport. The project included a 550-foot extension to the east end, and a 1,798-foot extension to the west end of the primary runway at the airport. The study included extensive coordination with Federal, state and local regulatory agencies. This fast-track EA was completed within a 12-month timeframe.

*Reference:* Mr. Norman Hegedus  
Section Chief GA Airports, Noise Abatement & Wildlife  
Miami-Dade Aviation Department  
(305) 876-0464  
[nhegedus@miami-airport.com](mailto:nhegedus@miami-airport.com)

*Cost (Est.):* \$280,000

### **Miami International Airport, Operational Noise Mitigation Procedures Environmental Assessment, Miami, FL**

Mike Alberts served as the Project Manager for the EA at this major air carrier airport. The EA included moving aircraft departure flight paths that overflew residential areas to areas over more compatible land uses. The EA involved extensive coordination with, and presentations to, the MIA Noise Abatement Task Force members.

*Reference:* Mr. Jeff Bunting  
Division Director, General Aviation Airports Maintenance  
Miami-Dade Aviation Department  
(305) 876-0569  
[jbunting@miami-airport.com](mailto:jbunting@miami-airport.com)

*Cost (Est.):* \$120,000



### **Miami International Airport, Runway 27 Noise Analysis, Miami, FL**

Mike Alberts served as the Deputy Project Manager/Lead Noise Modeler for the project that included the elimination of the existing 1,270-foot threshold displacement on Runway 27 and re-establish the End-of-Runway (EOR) threshold at MIA. The elimination of the displacement of the landing threshold was needed to eliminate extensive penetrations to the Terminal Instrument Procedures (TERPS) approach landing surfaces.

*Reference:* Mr. Jeff Bunting  
Division Director, General Aviation Airports Maintenance  
Miami-Dade Aviation Department  
(305) 876-0569  
[jbunting@miami-airport.com](mailto:jbunting@miami-airport.com)

*Cost (Est.):* \$20,000

### **Miami-Opa locka Executive Airport, Noise Abatement Pilot Handout, Opa-locka, FL**

Mike Alberts served as the Project Manager for the development of a noise abatement handout for pilots operating at the airport. The handout was developed with input from the citizen members of the Miami-Opa locka Executive Airport Noise Abatement Task Force.

*Reference:* Mr. Norman Hegedus  
Section Chief GA Airports, Noise Abatement & Wildlife  
Miami-Dade Aviation Department  
(305) 876-0464  
[nhegedus@miami-airport.com](mailto:nhegedus@miami-airport.com)

*Cost (Est.):* \$10,000

### **Miami International Airport, Noise Monitor Terminals Site Selection Study, Miami, FL**

Mike Alberts served as the Deputy Project Manager for the study that determined potential sites for 20 permanent noise monitor terminals surrounding Miami International Airport. Various parameters were identified including the location of existing and future aircraft flight corridors, the existing and future 65 DNL noise contours, locations of historic noise complaints, locations with minimal background noise levels, security of the location, and the use of property owned by Miami-Dade County.

*Reference:* Mr. Jeff Bunting  
Division Director, General Aviation Airports Maintenance  
Miami-Dade Aviation Department  
(305) 876-0569  
[jbunting@miami-airport.com](mailto:jbunting@miami-airport.com)

*Cost (Est.):* \$60,000

### **Miami-Opa locka Executive Airport, Noise Monitor Terminals Site Selection Study, Opa-locka, FL**

Mike Alberts served as the Project Manager for the study that identified the location of 18 candidate sites for the placement of six new permanent noise monitor terminals in the vicinity of the airport.

*Reference:* Mr. Norman Hegedus  
Section Chief GA Airports, Noise Abatement & Wildlife  
Miami-Dade Aviation Department  
(305) 876-0464  
[nhegedus@miami-airport.com](mailto:nhegedus@miami-airport.com)

*Cost (Est.):* \$30,000

## Kenneth R. Carlson - Architect, P.A.

### Sheltair / Holland Builders

4860 NE 12th Avenue  
Ft. Lauderdale, FL 33334  
Robin Kaplan, Director of Client Services  
954-771-2210  
[robin@hollandbuilders.com](mailto:robin@hollandbuilders.com)

John O. Sobol, Vice President of Construction  
(954) 771-2210  
[JOS@Hollandbuilders.com](mailto:JOS@Hollandbuilders.com)

**Banyan Air Service** (Banyan Air F.B.O. at Ft. Lauderdale  
Executive Airport)  
5360 NW 20th Terrace  
Ft. Lauderdale, FL 33309  
Don Campion, CEO  
(954) 491-3170  
[dcampion@banyanair.com](mailto:dcampion@banyanair.com)

### City of Pompano Beach

100 West Atlantic Boulevard  
Pompano Beach, FL 33060  
Robin Bird, Director of Development Services  
(954) 786-3634  
[Robin.bird@copbfl.com](mailto:Robin.bird@copbfl.com)

### City of Deerfield Beach

150 NE 2nd Avenue  
Deerfield Beach, FL 33441  
Kris Mory, CRA Director  
(954) 480-4317  
[kmory@deerfield-beach.com](mailto:kmory@deerfield-beach.com)

## Tierra South Florida

### South Runway Project - Expansion of Runway 10R-28L, Fort Lauderdale–Hollywood International Airport, Broward County, FL

This project included shifting and lengthening Runway 10R/28L from 5,276 feet to 8,000 feet, giving the airport two parallel runways that can accommodate air carrier flights. The runway will be elevated over 60 feet. TSF provided geotechnical services for the expansion of the runway and associated US 1/FEC railroad structures, high fill embankment, and MSE walls. SPT soil borings and sampling were performed for US 1/FEC Railroad structures, MSE walls and high embankments. Maximum MSE wall height is about 65 ft. which is significantly higher than the normal practice in Florida. TSF performed pile capacity analysis for bridge structures, slope stability analyses and recommendations for MSE walls and embankment fill, as well as other geotechnical engineering recommendations.



Organic material was encountered on the east side, varying several feet in thickness and depth. The original recommendation was to demuck and build the 65 foot MSE wall and embankment. However, due to environmental issues, the organic material had to be left in place and could not be demucked. TSF recommended a combination of surcharge and ground improvement as an alternate solution in order to accommodate schedule, and site constraints. The organic soils in the MSE wall areas were improved via soil mixing. The embankment in the runway area was surcharged to minimize

post construction settlements. The embankment and surcharge settlement was instrumented and monitored using more than 150 settlement plates. Extensometers were installed to monitor deep seated settlement. Monitoring data from settlement plates and Extensometers were utilized to release surcharge and embankment for construction. Inclinoimeters were installed to monitor potential lateral movement of MSE walls. Compressive strength tests and borings were performed to verify ground improvement via soil mixing. The project was completed on time and within budget in 2014.

*Cost:* N/A  
*Firm responsibilities:* Geotechnical Engineering and Material Testing Services  
*Contact Name:* Mr. Joseph Duarte, P.E., Project Manager  
*Phone number:* (954) 733-7233  
*Email:* [Joseph.Duarte@atkinsglobal.com](mailto:Joseph.Duarte@atkinsglobal.com)

### **Terminal 4 Redevelopment and Expansion, Fort Lauderdale–Hollywood International Airport, Broward County, FL**

The T4 Redevelopment and Expansion project includes doubling the terminal in size, adding four gates—for a total of 14—and providing double the number of restrooms, as well as new restaurants and concessions. The expansion also includes apron reconstruction around T4 West and a T4 West Fuel Hydrant System. TSF performed a geotechnical engineering study for the proposed Western Expansion of Terminal 4 and a connector bridge to Terminal 3. Field work consisted of coordinating with BCAD authorities and drilling Standard Penetration Test (SPT)



borings. Provided a geotechnical report summarizing subsurface conditions and groundwater information. TSF provided geotechnical recommendations regarding foundation design, including evaluating the use of Auger Cast-In-Place (ACIP) piles to support the proposed expansion. Provided ACIP pile design criteria and recommendations, site preparation recommendations, floor slab recommendations, and information regarding trench excavations. Completed on time and within budget in 2011.

TSF also performed a geotechnical engineering study for the T4 West Fuel Hydrant System to explore the subsurface conditions at the site to enable an evaluation of acceptable foundation for the proposed construction. Field work consisted of coordinating with BCAD authorities and drilling Standard Penetration Test (SPT) borings. Provided a geotechnical report summarizing findings as well as geotechnical recommendations regarding foundation design and soil parameters. Completed on time and within budget in 2011.

*Cost:* N/A  
*Firm responsibilities:* Geotechnical Engineering Services  
*Contact Name:* Mr. Ian Nestler, Manager  
*Phone number:* (561) 988-4002  
*Email:* [INestler@pgal.com](mailto:INestler@pgal.com)

## Runway 10L-28R Rehabilitation – Palm Beach International Airport, Palm Beach County, FL

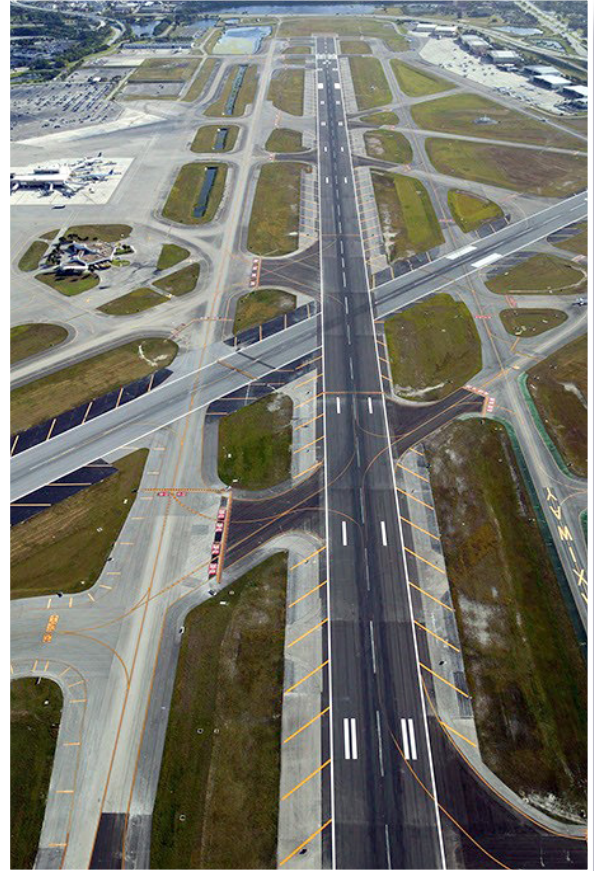
Performed a geotechnical engineering study for the project, which included:

- Milling and overlay full length of Runway 10L-28R and 14-32 Intersection
- Milling and overlay of taxiway connectors and shoulders (as necessary)
- Fillet widening and shoulder pavement at Taxiway C5
- Drainage improvement associated with the Storm Water Management Master Plan

Field work performed included Standard Penetration Test (SPT) borings, pavement cores, Double Ring Infiltration Tests (DRIT), Bore Hole Permeability (BHP) tests, and California Bearing Ratio (CBR) tests. TSF provided a geotechnical report discussing the subsurface conditions found, groundwater conditions at the site, and test results. Completed on time and within budget in 2012.

TSF also provided quality assurance material testing (QAMT) and inspection services for the project which included:

- Runway 10L-28R pavement rehabilitation
- Runway 10L-28R and runway 14-32 intersection pavement rehabilitation
- Taxiway C and L end connectors pavement rehabilitation within runway safety area (RSA)
- Taxiway connectors and pavement rehabilitation within the RSA
- Taxiway C5 fillet widening and shoulder pavement construction
- Taxiway 10L-28R delamination areas repairs, grooving and final pavement
- Runway and taxiway lightening system upgrades and electrical improvements



Services included inspection of asphalt plant supplier, density tests, LBR test, inspection and asphalt testing (during initial test section and production), miscellaneous concrete tests, witnessing of asphalt core drilling and delivery to plant, and issuance of daily reports in FAA format. Project required working night and weekend shifts. Completed on time in 2013 and **the rehabilitation was completed \$345,000 under the overall project budget.**

<i>Cost:</i>	N/A
<i>Firm responsibilities:</i>	Geotechnical Engineering and Quality Assurance Material Testing Services
<i>Contact Name:</i>	Ms. Cynthia Portnoy, P.E., Project Manager PBIA Planning & Development
<i>Phone number:</i>	(561) 471-7411
<i>Email:</i>	<a href="mailto:cportnoy@pbia.org">cportnoy@pbia.org</a>



## Section 8. Office Locations

Kimley-Horn's prime office is located in Plantation, just 30 minutes away from the Air Park. Your project manager, **Cody Parham, P.E.**, will lead all Air Park services from this location. Your Principal-in-Charge and QA/QC Manager, **Michael Carey, P.E.** is in the same location and works within the same production team. Our prime office is currently home to 52 employees. Other team members at this office include Stefano Viola, P.E., Carlos Florian, P.E., Alex Lopez, and **Julia Focaracci**.

**Kimley-Horn Plantation Office**  
600 North Pine Island Road, Suite 450  
Plantation, FL 33324  
(954) 535-5100

### Kimley-Horn Offices

While the Plantation office will be the principal location where work will be performed, additional offices within Kimley-Horn will provide project support. Kimley-Horn's West Palm Beach office will offer structural engineering and design support for the City. Our West Palm Beach office has 130 employees, including team members **David Stewart, P.E.**, **Tom O'Donnell, P.E.**, **Michael Parsons**, and **Marisa Lopez, P.E.**

**Kimley-Horn West Palm Beach Office**  
1920 Wekiva Way, Suite 200  
West Palm Beach, FL 33411  
(561) 845-0665



*Kimley-Horn – Plantation office*

Kimley-Horn's Boca Raton office has a staff of over 24 and is home to team members **Brady Walker**, **Meredith Aiken, CWD**, and **Ed Grady**. These professionals will provide environmental permitting support and construction phase services for this RLI. They will work closely with our Senior Environmental Scientist **Lynn Kiefer**, who is based from our Vero Beach office.

**Kimley-Horn Boca-Delray Office**  
1690 South Congress Avenue, Suite 100  
Delray Beach, FL 33445  
(561) 330-2345

**Kimley-Horn Vero Beach Office**  
445 24th Street, Suite 200  
Vero Beach, FL 32960  
(772) 794-4100

Kimley-Horn's Orlando office has a staff of 87 and is home to team members **David Rickerson**, who will provide planning services, **Jonathan Martin, P.E.**, who will provide stormwater design and permitting, **Edwin Tamang, P.E.**, who will provide airside engineering support, and **Carlos Maeda, P.E.**, who will assist with FAA and FDOT funding.

**Kimley-Horn Orlando Office**  
3660 Maguire Boulevard, Suite 200  
Orlando, FL 32803  
(407) 898-1511

Additional Kimley-Horn employees may be called upon to support the project if necessary; Kimley-Horn has over 2,800 employees across the nation ready to assist the City on an as-needed basis.

## Subconsultant Offices

**AWN Design & Consulting Group, Inc.** specializes in surveying and mapping, construction stakeout, engineering surveys, land acquisitions, computer mapping, land information/geographic information systems (LIS/GIS) and facilities management. Incorporated in 2003, the president of AWN, **Steven Watts, PSM**, has over 25 years of professional land surveying experience in the South Florida area. Having spent his entire career practicing in the tri-county area and providing surveying services to a multiple of civil engineering design firms he has a vast knowledge of providing applicable survey information as required for engineering design.

**AWN Design & Consulting Group, Inc.**  
227 Goolsby Boulevard  
Deerfield Beach, FL 33442  
(954) 481-8682

AWN has been providing surveying and mapping services to the Pompano Air Park either directly through the Airport Manager or as a surveying sub-consultant to Kimley-Horn since 2007. Any major construction project during that time, i.e., lengthening of Runway 15-33 or the Relocation of Taxiway Kilo has been based on as design survey by AWN. Their experience with Air Park procedures, existing survey control and the relationship with Kimley-Horn provide a very seamless design project from surveying to engineering.

The firm has been providing land surveying services in and for the City of Pompano Beach since its inception in 2003 with a substantial list of projects ranging from City park facilities, municipal golf course and numerous other municipal type engineering projects.

As president of a small firm, Steve Watts is personally responsible for the work being performed and is actively involved in the day-to-day operations of the firm and the surveying tasks as necessary for a successful completion of any project. He has a hands-on approach, which has proven to be a key to the success and the repeat business the firm has experienced in the surveying profession. Potential clients are encouraged to contact references to inquire as to the quality and timeliness of service.

As AWN has only one office location at 227 Goolsby Boulevard, Deerfield Beach, Florida, all surveying services are out of that office.

*Professional staff/administrative staff: 2*

**Beacon Consulting Engineers (BCE)**. With an average of over 20 years of experience, the principals of Beacon have provided a full range of mechanical, electrical, and plumbing engineering design services to the State of Florida, the cities and counties in South Florida, and private sector clients in Florida, Georgia, and North Carolina. Beacon's principals have achieved a reputation for quality work, delivered on time and within budget. Beacon has experienced and dedicated professionals who can provide full MEP engineering design, building assessment reporting, permitting, and construction administration services. Their design and production staff utilizes the latest design tools in order to maximize design potential and satisfy client's needs.



Beacon's team is composed of the following professionals who will be working directly in accomplishing the goals of City of Pompano Beach, Municipal Air Park:

*Primary Person Responsible:* **Joeven M. Valenzuela, P.E., M.B.A., LEED AP**  
Senior Electrical Engineer  
*Project Manager:* **Dennis Mikulski**  
Senior Project Manager/Electrical Designer

*Project Engineer:* **Angelo da Silva, P.E.**  
Senior Mechanical/Plumbing Engineer

*Mechanical Designer:* **Damaris Crespo**  
Senior Mechanical Designer

**Hillers Electrical Engineering, Inc.** has been in business since February 1994 with the main office located in Boca Raton and branches located in Miami, Hollywood and Orlando, Florida. Their staff offers unsurpassed experience, expertise and personalized service in electrical engineering design and control application programming. Their electrical design services include power, control, instrumentation, telemetry for major air carrier and general aviation airports terminals & airfield electrical & lighting systems, DOT roadway systems, water and wastewater treatment facilities, multi-sports complexes, storm water pumping and control structures, fueling systems and seaport storage and handling facilities for federal, state, county and municipal agencies.

Their office is fully equipped with current state-of-the-art computer systems and engineering software to help ensure a quality and cost-effective product.

The Hillers Electrical Engineering, Inc. design staff brings to this project over 30 years of electrical design and project management experience on major air carrier and general aviation airports terminals & airfields that includes edge and centerline runways & taxiways lighting systems, approach lighting systems (ODALS, MALSR), instrumentation landing systems (localizer, glide slope, DME units), airfield electrical vaults, air traffic control towers, airfield lighting control systems, terminal power systems for HVAC, lighting, navigational aids (VASI, PAPI, REIL), signage and all types of aircraft maintenance hangar facilities; major expressway, toll plaza and parking lot lighting systems; supervisory control and data acquisition (SCADA) systems; water/waste treatment plants, storm water pumping stations, lift stations, state-of-the-art distributed control systems, variable frequency speed drive analysis for facility efficiency improvements, ASR wells; implementation of commercial industrial load control program systems for large industrial power users, value engineering, energy audits, cost estimates, testing, start ups, all types of security systems, fire alarm; low, medium and high voltage distribution systems, normal and stand by generation, short circuit calculations, fault current calculations, protective device coordination; professional and amateur sports complex lighting systems; power, control, instrumentation for major fuel storage and refining facilities in the U.S. and internationally.

HEE provides a variety of electrical, instrumentation and telemetry design and construction management tasks including:

- Low, Medium, and High Voltage Power Distribution Systems
- Motor Control Centers (MCCs)
- Distribution Panels
- Voltage Drop Calculations
- Variable Frequency Drive (VFD) Application
- Luminaire Calculations
- Short-Circuit Calculations, Protective Device Coordination & Arc Flash
- Standby Generator Systems
- Fire Alarm and Security Systems
- Instrumentation & Control Systems
- Telemetry Systems
- Supervisory Control and Data Acquisition (SCADA) Systems
- Shop Drawing Review
- Energy Audits
- Cost Estimates, Testing, and Start-Ups

The nature of consulting is such that responsiveness is the key to maintaining a long-term relationship. HEE takes great pride in ensuring that we are immediately accessible and responsive to their client's needs. This is demonstrated in the excellent relationship they have established over the last 22 years with many municipalities and environmental consulting firms.





**KB Environmental Sciences, Inc.** (KBE) specializes in preparing airport-related noise, air quality, and climate change assessments. For 12 years, the principals and staff of KBE have provided discipline management and technical analysis for a multitude of 14 CFR Part 150 studies and Noise Compatibility Programs (NCPs), Environmental Assessments (EAs) and Environmental Impact Statements (EISs). Our breadth of experience enables us to fully assess the environmental impacts of aircraft operations and communicate these impacts to a broad audience of stakeholders.



**KB Environmental Sciences, Inc.**  
9500 Koger Blvd. N, Suite 211  
St. Petersburg, FL 33702

The KBE staff has experience with supporting various aspects of noise compatibility studies and the broad range of noise mitigation and noise abatement studies and programs that typically follow. Within the past five years, KBE staff have supported noise abatement and mitigation studies at, among others, LaGuardia Airport, Hartsfield-Jackson Atlanta International Airport, and Philadelphia International Airport. More than five years ago, KBE staff supported numerous efforts at Miami International Airport, Miami Executive Airport, and Miami-Opa Locka Executive Airport, as shown in the attached list of reference projects.

Within the industry, KBE is recognized as having extensive experience and providing excellent professional services. As a small business, the company is streamlined, easily accessible and able to offer individual attention to the unique and challenging issues facing its clients. KBE is also a certified woman-owned Disadvantaged Business Enterprise (DBE) in all 50 states.

*Professional staff at this location: 10; Admin. Staff at this location: 3*

**Kenneth R. Carlson - Architect, P.A.**

was established in 1989 upon the philosophy that superior products are the result of quality service. Today, with more than a dozen employees and hundreds of clients, the office of Kenneth R. Carlson - Architect, P.A., is well established and one of the most respected architectural firms in South Florida.

Their office is equipped with state-of-the-art computer hardware and software that allow us to provide superior design work. Utilizing CADD (Computer Aided Design and Drafting) in graphic production and design results in high quality drawings, faster production times, and greater flexibility during the design process. Although technological mastery and advancement are essential in today's world, Ken Carlson is known not only for his more than 25 years of experience but also his ability to sketch free hand while meeting with clients. That skill gives the client an idea of what the architect is thinking and results in an instant visual representation of the proposed project. Once again, that kind of unique personal service demonstrates our commitment to the highest quality service for each and every client.



**Kenneth R. Carlson - Architect, P.A.**  
1002 E. Newport Center Drive, Suite 101  
Deerfield Beach, FL 33442  
(561) 368-7798





The firm has been working for Pompano Beach since 2009 and has worked on the following projects:

- Design studies, remodel American Flyers School and Operations Center, Pompano Beach Municipal Airport
- Remodel Sheltair FBO, Pompano Beach Municipal Airport
- Goodyear Revised Master Plan and Remodel Airship Hangar, Pompano Beach Municipal Airport

The firm also has served as architect on other local aviation projects including:

- Banyan Air Service, Fort Lauderdale Executive Airport
- Spirit Airlines Training Center, Ft. Lauderdale International Airport
- Sheltair FBO, Panama City, Florida



*Professional staff in this office: 14*

**Tierra South Florida, Inc.** (TSF) is a full service consulting geotechnical engineering, construction materials testing and inspections engineering firm with capabilities to provide test borings, engineering analyses and reports, AutoCAD and Microstation plan sheets, laboratory soils testing, and construction materials testing. Their services also include threshold/special inspection and roofing inspection services. TSF was incorporated in the State of Florida in 2003. Our professional team has been working together since 2000 and is committed to providing quality, responsive service establishing a reputation for sound approaches and professional competence in a wide range of technically demanding areas. TSF is a certified Disadvantaged Business Enterprise (DBE) with the Florida Department of Transportation. TSF is also a certified Minority Business Enterprise (MBE) with the State of Florida's Office of Supplier Diversity.



**Tierra South Florida, Inc.**  
2765 Vista Parkway, Suite 10  
West Palm Beach, FL 33411  
(561) 687-8536

•  
9605 NW 79th Ave, #28  
Hialeah Gardens, Florida 33016  
(305) 557-0708

Their main office is located in West Palm Beach, Florida with a branch office and CMEC laboratory in Hialeah Gardens, Florida.

**Geotechnical Engineering:** TSF provides a complete range of geotechnical engineering services. Their organization helps define the construction and long-term performance risks associated with subsurface conditions. Whether buildings, airport facilities, transportation systems, landfills, dams, or other civil and private projects, their engineers have the experience and expertise to handle the most technically demanding projects. TSF owns a large, diverse fleet of 8 drill rigs with automatic hammers (truck-mounted, track-mounted, rotary, tripod, ATV, barge/overwater) capable of drilling in challenging conditions including remote, soft, marshy, over-water, difficult access or environmentally sensitive areas. We also employ employee MOT (Maintenance of Traffic) certified staff to safely perform drilling services in high traffic areas.



TSF's geotechnical services include:

- Laboratory testing and analysis
- Pavement evaluations and design
- Subsurface exploration
- Deep and shallow foundation analysis/design
- Site preparation recommendations
- Slope stability analysis
- Soil reinforcement
- Corridor studies
- Expert witness testimony
- Sinkhole studies
- Value engineering
- Unknown foundation studies

**Construction Materials Testing:** TSF offers materials engineering, testing and inspection services applicable to the governmental, construction and manufacturing industries. TSF will evaluate and then develop recommendations regarding both existing structures and new construction. During construction, monitoring and quality control services will cover every phase of construction and all materials used. TSF owns and operates two fully equipped in-house soils, concrete, aggregate, and asphalt testing laboratories. American Society for Testing and Materials (ASTM) and American Association of State Highway and Transportation Officials (AASHTO) certified by Construction Materials Engineering Council (CMEC) and approved by Florida Department of Transportation (FDOT). Their field and laboratory technicians hold industry-recognized certifications (ACI/CTQP/PCI/FPCA) for aggregates, asphalt, concrete, and earthwork testing as well as drilled shaft, augercast pile, and pile driving installation monitoring. TSF's construction materials testing and inspection services include:

- Soils/aggregates/concrete/masonry/asphalt
- Earthwork testing and observations
- Concrete testing and placement observation
- Masonry, grout, and mortar sampling/testing
- Asphalt paving monitoring
- Asphalt plant observations and monitoring
- MSE wall installation monitoring
- Pre-stressed yard observations
- Drilled shaft installation monitoring
- Pile driving installation monitoring

**Building Inspection:** TSF also provides building inspection services to public and private clients; their services include:

- Threshold/special inspections
- Non-destructive testing
- Roof installation observations
- Torque testing and inspections
- Welding inspections
- Fire proofing testing
- Floor flatness testing

TSF's staff of over 50 includes 5 engineers, 20+ field/laboratory technicians and inspectors, as well as drillers and clerical/support staff. Their staff includes principal engineers with more than 29 years of experience in geotechnical, construction, laboratory and field materials testing and inspection services. TSF features Master's Degree level or higher educational background amongst our Registered Professional Engineers and maintain licenses in the State of Florida.

*Professional staff in this office: 50*



Continuing Contract for Professional  
Engineering and Consulting Services  
for the  
**Municipal Air Park**  
Request for Letter of Interest L-54-16

Section 9  
**Local Business Program Forms  
(Exhibits A-D)**





Not Applicable

EXHIBIT B  
LOCAL BUSINESS  
LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR

RLI Number \_\_\_\_\_

TO: \_\_\_\_\_  
(Name of Prime or General Bidder)

The undersigned City of Pompano Beach business intends to perform subcontracting work in connection with the above contract as (check below)

\_\_\_\_\_ an individual

\_\_\_\_\_ a corporation

\_\_\_\_\_ a partnership

\_\_\_\_\_ a joint venture

The undersigned is prepared to perform the following work in connection with the above Contract, as hereafter described in detail:

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\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Name of Local Business Contractor)

\_\_\_\_\_  
(address)

\_\_\_\_\_  
(address City, State Zip Code)

BY: \_\_\_\_\_  
(Name)

EXHIBIT C  
LOCAL BUSINESS  
UNAVAILABILITY FORM

RLI # L-54-16

I, Cody Parham, P.E., Project Manager  
(Name and Title)

of Kimley-Horn and Associates, Inc., certify that on the 2nd day of  
August, 2016, I invited the following LOCAL BUSINESSES to bid work  
items to be performed in the City of Pompano Beach:

Business Name, Address	Work Items Sought	Form of Bid Sought (i.e., Unit Price, Materials/Labor, Labor Only, etc.)
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Said Local Businesses:

- ☐ Did not bid in response to the invitation
- ☐ Submitted a bid which was not the low responsible bid
- X ☐ Other: We value the experience of our existing team that has served on our  
team at the Air Park and will be utilizing them again on this contract.

Name and Title: *Cody Parham*  
Cody Parham, P.E., Project Manager  
Date: August 2, 2016

Note: Attach additional documents as available.

EXHIBIT D  
GOOD FAITH EFFORT REPORT  
LOCAL BUSINESS PARTICIPATION

RLI # L-54-16

1. What portions of the contract have you identified as Local Business opportunities?

None. Based on the superior resumes and history of performance on this contract, we  
choose to retain firms that we utilized in the past on other Air Park projects.

2. Did you provide adequate information to identified Local Businesses? Please comment on how you provided this information.

N/A

3. Did you send written notices to Local Businesses?

     Yes    ☒ No

If yes, please include copy of the notice and the list of individuals who were forwarded copies of the notices.

4. Did you advertise in local publications?

     Yes    ☒ No

If yes, please attach copies of the ads, including name and dates of publication.

5. What type of efforts did you make to assist Local Businesses in contracting with you?

None

7. List the Local Businesses you will utilize and subcontract percentage of work.

\_\_\_\_\_

LOCAL BUSINESS EXHIBIT "D" – Page 2

Local Business

% of Work

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8. Other comments: \_\_\_\_\_

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Continuing Contract for Professional  
Engineering and Consulting Services  
for the  
**Municipal Air Park**  
Request for Letter of Interest L-54-16

Section 10  
**SBE Program Forms  
(Exhibits E-H)**

EXHIBIT "E"  
CITY OF POMPANO BEACH, FLORIDA  
SMALL BUSINESS ENTERPRISE  
PARTICIPATION FORM

RLI Number & Title: L-54-16 Continuing Contract for Professional Engineering Contractor's Name: Kimley-Horn and Associates, Inc.

Name of Firm, Address	Contact Person, Telephone Number	Type of Work to be Performed	Contract Percentage
Tierra South Florida - 2765 Vista Parkway, Suite 10 West Palm Beach, FL 33411	Raj Krishnasamy, P.E.	Geotechnical	15%
Beacon Consulting Engineers, 100 NE 6th Street Suite 102, Boynton Beach, FL 33435	Joeven Valenzula, P.E., LEED AP	Mechanical/Electrical/Plumbing	5%

**(INCLUDE CERTIFICATES FOR ANY FIRMS LISTED ON THIS PAGE)**

FOR CITY USE ONLY

Total SBE Contract Participation 20%

Are documents requested submitted accordingly XX YES    NO

EXHIBIT "F"  
SMALL BUSINESS ENTERPRISE  
LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR

RLI Number L-54-16

TO: Kimley-Horn  
(Name of Prime or General Contractor)

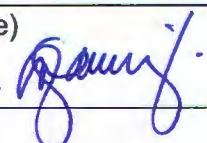
The undersigned intends to perform subcontracting work in connection with the above contract as (check below)

       an individual   X   a corporation  
       a partnership        a joint venture

The undersigned is prepared to perform the following work in connection with the above Contract, as hereafter described in detail:

Prepare all required bidding/construction mechanical, electrical, & plumbing  
(MEP) documents for projects. Assist in bidding services. Provide construction engi-  
neering/management/administration services for MEP projects. Provide project close-  
out services for MEP projects.

08-02-2016  
(Date)

Beacon Consulting Engineers  
(Name of SBE Contractor)  
100 NE 6th St. Suite 102  
(address)  
Boynton Beach, FL 33435  
(address City, State Zip Code)  
BY: Joeven M. Valenzuela, P.E.   
(Name)

**Palm Beach County  
Office of Small Business Assistance**

Certifies That

**BEACON CONSULTING ENGINEERS, LLC**

Vendor # VC0000142361

*is a Small/Minority Business Enterprise as prescribed by section 2-80.21 – 2-80.35 of the Palm Beach County Code for a three year period from May 6, 2014 to May 5, 2017*


The following Services and/or Products are covered under this certification:

**ELECTRICAL ENGINEERING SERVICES;  
ENGINEERING CONSULTING;  
FACILITIES DESIGN SERVICES, ENGINEERING;  
FIRE PROTECTION ENGINEERING;  
MECHANICAL ENGINEERING.**

**Palm Beach County Board of County Commissioners**

Priscilla A. Taylor, Mayor  
Paulette Burdick, Vice Mayor  
Hal R. Valeche  
Shelley Vana  
Steven L. Abrams  
Mary Lou Berger  
Jess R. Santamaria

**County Administrator**  
Robert Weisman  
**Deputy County Administrator**  
Verkenia C. Baker



**Allen F. Gray, Manager**

5/6/2014





EXHIBIT "F"  
SMALL BUSINESS ENTERPRISE  
LETTER OF INTENT TO PERFORM AS A SUBCONTRACTOR

RLI Number L-54-16

TO: Kimley-Horn and Associates, Inc.  
(Name of Prime or General Contractor)

The undersigned intends to perform subcontracting work in connection with the above contract as (check below)

☐ an individual

X ☒ a corporation

☐ a partnership

☐ a joint venture

The undersigned is prepared to perform the following work in connection with the above Contract, as hereafter described in detail:

Geotechnical Engineering Services

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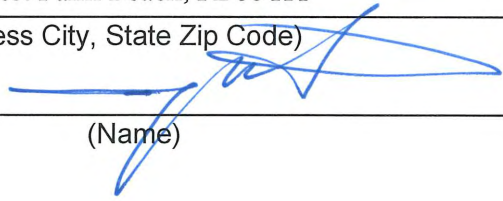
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August 2, 2016  
(Date)

Tierra South Florida, Inc.  
(Name of SBE Contractor)

2765 Vista Parkway, Suite 10  
(address)

West Palm Beach, FL 33411  
(address City, State Zip Code)

BY:   
(Name)



## SOUTH FLORIDA WATER MANAGEMENT DISTRICT

REGISTERED VENDOR NO.: 115348

April 8, 2014

Mr. Raj Krishnasamy, P.E., President  
Tierra South Florida, Inc.  
2765 Vista Parkway, Suite 10  
West Palm Beach, FL 33411

CERTIFICATION EXPIRATION DATE  
April 8, 2017

Dear Mr. Krishnasamy:

Congratulations, the South Florida Water Management District (District) has certified your firm as a Small Business Enterprise (SBE). This certification is valid for three (3) years and may only be applied when business is conducted in the following area(s):

**Professional Engineering Consulting Services**

*Your submittal of bids or proposals to supply other products or services outside of the specialty area(s) noted above will not count toward SBE participation. If you require certification in other specialty areas, please contact the Procurement Bureau, SBE Section, for additional information.*

Renewal is required every three (3) years and should be requested a minimum of 45 days prior to the above expiration date.

If any changes occur within your company during the certification period such as ownership, affiliate company status, address, telephone number, licensing status, gross revenue, or any information that relates to your SBE Certification status, you must notify this office in writing immediately. It is imperative that we maintain current information on your company at all times. **FAILURE TO REPORT CHANGES MAY RESULT IN DECERTIFICATION.**

Certification is not a guarantee that your firm will receive work, nor an assurance that your firm will remain in the District's vendor database.

We look forward to a mutually beneficial working relationship.

Sincerely,

Colleen M. Robbs  
Sr. Compliance Specialist  
Procurement Bureau

/cr

ECF  
4/10/14

EXHIBIT "G"  
SMALL BUSINESS ENTERPRISE  
UNAVAILABILITY FORM

RLI # \_\_\_\_\_

I, \_\_\_\_\_  
(Name and Title)

of \_\_\_\_\_, certify that on the \_\_\_\_\_ day of

\_\_\_\_\_, \_\_\_\_\_, I invited the following SBE CONTRACTOR(s) to bid work  
(Month) (Year)

items to be performed in the City of Pompano Beach.

SBE Contractor Address	Work Items Sought	Form of Bid Sought (i.e., Unit Price, Materials/Labor, Labor Only, etc.)
_____		
_____		
_____		
_____		
_____		

Said SBE CONTRACTOR(s):

- ☐ Did not bid in response to the invitation
- ☐ Submitted a bid that was not the low responsible bid
- ☐ Other: \_\_\_\_\_

Name and Title: \_\_\_\_\_

Date: \_\_\_\_\_

Note: Attach additional documents as available.

EXHIBIT "H"  
SMALL BUSINESS ENTERPRISE  
GOOD FAITH EFFORT REPORT

RLI # L-54-16

1. What portions of the contract have you identified as SBE opportunities?

Geotechnical and Mechanical/Electrical/Plumbing.

\_\_\_\_\_

\_\_\_\_\_

2. Did you provide adequate information to identified SBE? Please comment on how you provided this information.

Yes

\_\_\_\_\_

\_\_\_\_\_

3. Did you send written notices to SBEs?

       Yes                      X        No

If yes, please include copy of the notice and the list of individuals who were forwarded copies of the notices.

4. Did you advertise in local publications?

       Yes                      X        No

If yes, please attach copies of the ads, including name and dates of publication.

5. Did you contact any organizations with large constituents of SBE members for possible sub-contractors? Please attach list of resource organizations used.

6. What type of efforts did you make to assist SBEs in contracting with you?

We gathered the SBE submittal information, checked it with the RLI requirements, provided comments to improve the submittal, then formatted the SBE information with the rest of the Letter of Interest at no cost to the SBE firms.

7. List the SBEs you will utilize and subcontract percentage of work.

Tierra South Florida

15%

Beacon Consulting Engineers

5%

SBE EXHIBIT "H" – Page 2

SBE Name

% of Work

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8. Other comments: \_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Note: Please attach the unavailability letters with this report



## Section 11. Litigation History

Kimley-Horn and its subsidiaries have provided services in all 50 states and numerous countries. Because of the many and varied projects we have completed, we are subject to various legal proceedings from time to time and in the ordinary course of business. It is not practical to provide a complete list as part of this proposal. None of the pending matters, if decided against Kimley-Horn, would have a material impact on our financial statements or impair in any way our ability to serve our clients. Generally, these matters are covered by insurance, and we consider them to be without merit. From time to time, Kimley-Horn will file a lawsuit against a client for unpaid fees. We do not track these cases. If you would like to discuss our legal matters in more detail, please contact Kimley-Horn's General Counsel, Richard Cook, at 919.677.2058.

The cases litigated in Florida in the last five years are as follows:

Walter Gaitan, as Personal Representative of the Estate of Carlos Jose Gaitan, Deceased, et al v. Gibraltar Cable Barrier Systems, L.P., et al: 11th Judicial Circuit Court, Miami-Dade County; Case No. 09-29561 CA21; filed 2010; traffic accident, wrongful death claim; settled; closed 2011.

Efrain Gamarra, as Personal Representative of the Estate of Maria Gamarra, Deceased v. Gibraltar Cable Barrier Systems, L.P., et al: 15th Judicial Circuit Court, Palm Beach County; Case No. 50-2008-CA-027405; filed 2008; traffic accident, wrongful death claim; settled; closed 2012.

Laurie J. Mullen, as Personal Representative De Son Tort, of the Estate of Kimberly Jean Haro, Deceased v. Alejandro M. Martian Mesa, Patco Transport, Inc., et al: 13th Judicial Circuit Court, Hillsborough County; Case No. 06-001608; filed 2006; traffic accident, wrongful death claim; settled; closed 2012.

Solange Keogh v. The Home Depot USA Inc et al: United States District Court for the Southern District of Florida; Case No. 13-CV-61492; filed 2014; personal injury claim; Kimley-Horn dismissed; closed 2014.

Glenda Fuller, as Personal Representative of the Estate of Dana King, Deceased, et al v. Bluegreen Resorts Management, Inc. and Kimley-Horn and Associates, Inc.: 9th Judicial Circuit Court, Orange County; Case No. 11-CA-10865-0; filed 2011; traffic accident, wrongful death claim; settled; closed 2014.

Richard and Elisa Lacasse v. Wal-Mart Stores, Inc., et al: 20th Judicial Circuit Court, Collier County; Case No. 1100710CA; filed 2011; bicycle accident, personal injury claim; settled; closed 2012.

Theresa Murphy, individually, Thomas Murphy, her husband and Theresa Murphy and Thomas Murphy, as parents and natural guardians of Caitlin Murphy, a minor v. Kimley-Horn and Associates, Inc.: 19th Judicial Circuit Court, Martin County; Case No. 08542CA; Filed 2008; traffic accident, personal injuries claimed; settled; closed 2011.

Sema Construction, Inc. v. City of Altamonte Springs: 18th Judicial Circuit Court, Seminole County; Case No. 2015-CA-002951-15-W; filed 2016; alleged economic loss; pending.

Stacey Vasquez, a/k/a Stacey Leigh Gimson,, as Personal Representative of the Estate of Frank Vasquez, III, v. Matthew J. West, et al: 13th Judicial Circuit Court, Hillsborough County; Case no. 15-CA-006839; filed 2015; traffic accident, wrongful death claim; pending.

Joan Weinstein v. Simon Property Group LP and The Town Center at Boca Raton Trust: 15th Judicial Circuit, Palm Beach County; Case No. 502016CA003199XXXXMB AG; filed 2016; personal injury claim; pending.

Deontra Williams v. Florida Department of Transportation., et al: 17th Judicial Circuit Court, Broward County; Case No. CACE-13-009427(05); filed 2015; bicycle accident, personal injuries claimed; pending.



Continuing Contract for Professional  
Engineering and Consulting Services  
for the  
**Municipal Air Park**  
Request for Letter of Interest L-54-16

## Section 12

# Certified Minority Business Enterprise

**BIDDERS ARE TO COMPLETE FORM AND UPLOAD COMPLETED FORM TO THE EBID SYSTEM**

EXHIBIT I

## MINORITY BUSINESS ENTERPRISE PARTICIPATION

RLI # \_\_\_\_\_

List all members of your team that are a certified Minority Business Enterprise (as defined by the State of Florida.) You must include copies of the MBE certificates for each firm listed with your electronic submittal.

[illegible]

# State of Florida

## Minority, Women & Florida Veteran Business Certification

Beacon Consulting Engineers LLC

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

01/02/2016 to 01/02/2018



  
Chad Poppell, Secretary  
Florida Department of Management Services



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

# *State of Florida*

## Minority, Women & Florida Veteran Business Certification

Hillers Electrical Engineering Inc

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

11/23/2015 to 11/23/2017



  
Chad Poppell, Secretary  
Florida Department of Management Services



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**Florida UCP DBE Directory  
Vendor Profile**

As Of: 07/27/2016

Vendor Name: KB ENVIRONMENTAL SCIENCES INC

Certification: DBE/MBE

Former Name:

Business Description: CONSULTING TRANSPORTATION RELATED AIR QUALITY AND NOISE HAZARDOUS MATERIALS

**Mailing Address:**

9500 KOGER BLVD STE 211  
ST PETERSBURG, FL 33702-

**Physical Address:**

9500 KOGER BLVD STE 211  
ST PETERSBURG FL 33702-

District: 07

County: PINELLAS

Website:

Contact Name: LEOLA CARROL FOWLER

Phone: (727) 578-5152

Fax: (727) 578-5210

Contact Email: [CFOWLER@KBENV.COM](mailto:CFOWLER@KBENV.COM)

Current DBE Certification: Certified

Certifying Member: Florida Department of Transportation

ACDBE Status: N

Statewide Availability: Y

**Certified NAICS**

541618 - Other Management Consulting Services

541620 - Environmental Consulting Services

562112 - Hazardous Waste Collection

**Specialty Areas**

Environmental Consulting Services

Hazardous Waste Services

Other Business Services (nec)

# *State of Florida*

## Minority, Women & Florida Veteran Business Certification

Tierra South Florida, Inc.

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

11/30/2015 to 11/30/2017

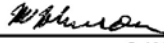


  
Chad Poppell, Secretary  
Florida Department of Management Services



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## Section 13. Insurance Certificate

Client#: 25320		KIMLHORN		DATE (MM/DD/YYYY) 3/28/2016	
<b>ACORD™ CERTIFICATE OF LIABILITY INSURANCE</b>					
THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.					
IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).					
<b>PRODUCER</b> Greyling Ins. Brokerage/EPIC 3780 Mansell Road, Suite 370 Alpharetta, GA 30022 877 908-5619			<b>CONTACT NAME:</b> Jerry Noyola <b>PHONE (A/C, No, Ext):</b> 770-552-4225 <b>FAX (A/C, No):</b> 866-550-4082 <b>E-MAIL ADDRESS:</b> jerry.noyola@greyling.com		
<b>INSURED</b> Kimley-Horn and Associates, Inc. P.O. Box 33068 Raleigh, NC 27636			INSURER(S) AFFORDING COVERAGE		NAIC #
			INSURER A : National Union Fire Ins. Co.		19445
			INSURER B : Commerce & Industry Ins. Co.		19410
			INSURER C : New Hampshire Ins. Co.		23841
			INSURER D : Lloyds of London		085202
			INSURER E :		
			INSURER F :		
<b>COVERAGES</b>		<b>CERTIFICATE NUMBER: 16-17</b>		<b>REVISION NUMBER:</b>	
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 SUBR INSR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liab. GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input checked="" type="checkbox"/> LOC OTHER:		5268169	04/01/2016	04/01/2017
				LIMITS EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$500,000 MED EXP (Any one person) \$25,000 PERSONAL & ADV INJURY \$1,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COM/OP AGG \$2,000,000 \$	
A	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS		4489663	04/01/2016	04/01/2017
				COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$	
B	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$10,000		BE013778306	04/01/2016	04/01/2017
				EACH OCCURRENCE \$5,000,000 AGGREGATE \$5,000,000 \$	
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE/OFFICER/MEMBER EXCLUDED? <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	15893685 (AOS)	04/01/2016	04/01/2017
				PER STATUTE <input checked="" type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE - EA EMPLOYEE \$1,000,000 E.L. DISEASE - POLICY LIMIT \$1,000,000	
A			15893686 (CA)	04/01/2016	04/01/2017
				E.L. DISEASE - POLICY LIMIT \$1,000,000	
D	Professional Liab		P070831600	04/01/2016	04/01/2017
				Per Claim \$2,000,000 Aggregate \$2,000,000	
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)					
<b>CERTIFICATE HOLDER</b>			<b>CANCELLATION</b>		
Proof of Insurance/For Proposal Only			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 		
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ACORD 25 (2014/01)		1 of 1		The ACORD name and logo are registered marks of ACORD	
#S464265/M461305				CUND1	