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Qualifications DBE

Item #	Line Item	Notes	Unit Price	Qty/Unit	Attch.	Docs
PNC2119437P1--01-01	Environmental Planning & Acoustical Consulting Services	Supplier Product Code:	First Offer -	1 / each	Y	Y
Supplier Total					\$0.00	

Harris Miller Miller & Hanson Inc.

Item: **Environmental Planning & Acoustical Consulting Services**

Attachments

[_BCBCCEnvAcstcl_Proposal_FINAL.pdf](#)

Solicitation PNC2119437P1: Environmental Planning and Acoustical Consulting Services

To: Broward County Board of
County Commissioners



January 31, 2020



HMMH

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January 31, 2020

Winston Cannicle
Broward County Board of County Commissioners
Aviation Department
Planning & Development Division
2200 SW 45th Street, Suite 101
Dania Beach, FL 33312

Subject: Response to Solicitation PNC2119437P1 - Environmental Planning and
Acoustical Consulting Services

Dear Mr. Cannicle:

We at Harris Miller Miller & Hanson Inc. (HMMH) and our project team are thrilled to have the opportunity to submit our proposal to the Broward County Board of County Commissioners to provide On-Call Environmental Planning and Acoustical Consulting Services to support the needs of the Broward County Aviation Department (BCAD). In the accompanying proposal, we have detailed the extensive qualifications and experience of our proposed project team and outlined how we will be able to handle all of the five scope areas included in the Request for Proposals (RFP).



HMMH is an international leader in environmental noise and vibration control, air quality analysis, airport and airspace planning, and climate and energy solutions. We have been working with BCAD for decades, which affords us unsurpassed local knowledge, experience, and familiarity with the noise and environmental landscape at Fort Lauderdale Hollywood International Airport (FLL) and North Perry Airport (HWO).

HMMH is excited to take our relationship with BCAD to the next level by continuing to provide unparalleled on-call acoustical and noise services while adding environmental work and exceptional program management of a large multi-disciplinary team to the scope of services. Our staff have significant experience providing program management support to our clients and will work closely with BCAD to direct the project team in the most timely and efficient manner possible.

Our exemplary project team includes Kimley-Horn and Associates, Inc.; RS&H; McFarland-Johnson Inc.; Planning Technology Incorporated; Montgomery Consulting Group, Inc.; Quest Corporation of America, Inc.; Jones Payne Group; Keith & Associates, Inc.; Gartek Engineering Corporation; and AirQuest Environmental, Inc. The project team consists of five certified disadvantaged business enterprises, including HMMH.

We appreciate your consideration of our proposal and look forward to hearing from you and continuing our relationship with BCAD. Please do not hesitate to contact me at meagan@hmmh.com and 781-852-3152 or Rhea Gundry at rgundry@hmmh.com and 916-540-7620 with any questions with regard to our submittal.

Sincerely yours,

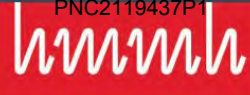
Harris Miller Miller & Hanson Inc.

A handwritten signature in blue ink that reads 'Mary Ellen Eagan'.

Mary Ellen Eagan
President and CEO

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1. Ability of Professional Personnel – Organization and Qualification

Given our decades of experience at Fort Lauderdale Hollywood International Airport (FLL), HMMH has assembled an exceptional team of aviation environmental professionals tailored to meet the specific needs of the Broward County Aviation Department (BCAD) and exceed expectations for qualifications and relevant work experience, including specific experience at FLL. Section 1.1 provides a description of our team’s qualifications and relevant experience including key staff identified at HMMH and our dedicated sub-consultants. Full résumés for proposed key staff are provided in Appendix A. Section 1.2 provides more detailed qualifications, knowledge, and experience of our team’s Project Manager, Rhea Gundry, in airport environments, her proven approach to project management, and the allocation of her time and resources to the five scope groups identified in BCAD Solicitation Bid PNC2119437P1.

1.1. Qualifications and Relevant Experience

HMMH Inc.



HMMH was founded in 1981 to provide the highest possible caliber noise consulting to airports with the goal of providing innovative solutions for a better future. Since 1990, we have built a diverse environmental planning consulting practice including noise, vibration and air quality measurement, modeling and analysis for all modes of transportation, airport and airspace planning, and climate and energy services. Airports – and airport environmental projects – remain our primary focus, representing well over half our business by providing our expertise to more than 200 airports worldwide.

With four offices throughout the country, HMMH solves complex problems affecting our environment. We serve government and private industry clients with a broad range of innovative and effective solutions. Our core values are to serve clients with excellence and honesty, to respect others, foster teamwork and seek growth opportunities. HMMH prides itself on exceeding client expectations and making clients for life, as we believe we have accomplished with BCAD. HMMH is an international leader for technical excellence with a diverse and well-rounded staff of experts, that leverage their skills to assist airports in identifying and implementing effective solutions, and help to effectively communicate with and establish the trust of all stakeholders.

As an international leader in environmental and transportation planning, including noise and vibration control, air quality analysis, airport and airspace planning, and sustainable energy consulting, HMMH provides full-service environmental and sustainability planning; from development of renewable energy master plans to preparation of some of the nation’s most challenging environmental projects. For decades, some of the most prominent airports in the world have chosen HMMH as their on-call consultancy team for issues ranging from airport planning, to environmental planning, to noise abatement and mitigation, to public outreach.

We provide a range of consulting services to clients related to aviation, highway, rail, transit, bus, industrial, construction, military, recreational, entertainment, and renewable energy projects. Our services encompass everything from sophisticated simulation modeling to customized software tools to program planning and management. Strategic public communication is a key component of our offering; we excel at transforming complex technical issues into concepts that are easy to grasp.

HMMH is certified as a Women-Owned Business Enterprise (WBE) in our home state of Massachusetts and/or as a Disadvantaged Business Enterprise (DBE) by more than 30 agencies across the country, including the Florida Unified Certification Program. We are also recognized as an Economically Disadvantaged Women-Owned Small Business (EDWOSB) by the U.S. Small Business Administration (SBA).



A large percentage of HMMH's aviation consulting is under on-call "as-needed" arrangements that have similarities to a portion of this request for proposals (RFP). On-call arrangements provide flexible, timely, and cost-effective access to HMMH assistance in a diverse range of areas and the ability to respond to unanticipated needs as they arise. A hallmark of our assistance to airports is the establishment of a close partnership with the client; we see ourselves as an adjunct to airport staff.

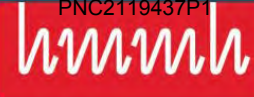
Assistance to airports under on-call arrangements is a hallmark of our full range of consulting services. Some of the services HMMH has provided include, but are not limited to environmental projects (e.g., National Environmental Policy Act (NEPA) type planning projects), noise measurement and modeling, noise compatibility studies/updates and implementation, Master Plan noise elements, comprehensive noise and operations monitoring system support, and sound insulation assistance.

We offer the advantage of extensive experience obtained from years of on-call assignments. Within the last five years alone, we have served (and in most cases continue to serve) as noise consultant to more than 25 airports across the U.S., including, but not limited to:

- Fort Lauderdale-Hollywood International, FL (1990-present)
- Fort Lauderdale Executive, FL (1984-present)
- North Palm Beach County, Lantana, and Palm Beach International, FL (1991-present)
- Baltimore/Washington International Thurgood Marshall and Martin State Airports, MD (1985-present)
- San Diego International Airport, CA (1994-present)
- Oakland International, CA (2007-present)
- Los Angeles International and Van Nuys Airports, CA (2013-present)
- Denver International, CO (1995-present)
- Seattle-Tacoma International Airport, WA (1990s-present)
- Boston Logan International Airport and Hanscom Field, MA (1982-present)
- Raleigh-Durham International Airport, NC (1981-present)
- T.F. Green and Westerly State Airports, RI (2004-present)

Given our decades of experience and familiarity with BCAD and FLL, HMMH has opted to pursue the Environmental Planning and Acoustical Consulting Services Contract as a prime. A key differentiator between HMMH and other firms is that we advance the knowledge base in addition to applying the science, measurement, and modeling to specific projects. Clients retain HMMH to provide specialized technical assistance on a broad range of emerging issues where gaps in existing regulations, policies, and procedures require a novel application of experience and knowledge. To ensure the HMMH team will be able to provide BCAD with any on-call services within the realm of environmental planning and acoustical needs, we have strategically and selectively included 10 additional firms to the team. Our team is designed to provide comprehensive, and even redundant, capabilities for all of the necessary skill sets required, as conveyed in the following matrix.

The HMMH team consists of HMMH as prime consultant with 10 strategically selected subconsultants to address each of the scope areas described in the BCAD solicitation for proposals (Bid PNC2119437P1). The team has an extensive depth of technical professionals available to call upon at any point during this project. Importantly, all of our teammates have specific expertise with Master Plans/Part 150 studies/noise/controversial aviation environmental projects, and also have direct and recent experience providing environmental, acoustical, and on-call related services to numerous airport clients in Florida.



	HMMH	Kimley Horn	RS&H	McFarland	PTI	Montgomery	Quest	Jones Payne	Keith	Gartek	AirQuest
1 - Environmental Planning and Regulatory Compliance Services	✓	✓	✓	✓	✓	✓			✓	✓	
2 - Acoustical Services	✓	✓				✓	✓	✓	✓	✓	
3 - Environmental Site Investigation and Rehabilitation Services		✓	✓	✓					✓		✓
4 - Sustainability Services	✓	✓	✓	✓	✓				✓	✓	
5 - On-Call Program Management Services	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

In addition to our team’s ability to provide the full range of services required by BCAD, our team can provide the most efficient and responsive on-call services due to the intentional overlapping of skill sets represented by the firms and staff members selected for this project. Our team members will be able to respond to BCAD’s needs without delay and will match the best technical experts for each service required. This work-load sharing will be managed through timely communication with BCAD representatives. Our project management skills set us apart because we are first and foremost an on-call consultant; this allows us to direct and manage the technical experts on the team.

HMMH has carefully and strategically amassed this exceptional team of consultants to provide BCAD with the services required for this on-call type contract. We have only included sub-consultants we can trust and that we have an existing working relationship. Below is a summary of our working history with the sub-consultant firms:

RS&H, Kimley-Horn and Associates, and the Jones Payne Group are trusted and long-term strategic partners for aviation projects with HMMH: RS&H and HMMH team mostly on environmental planning projects; KHA and HMMH team predominantly on airport planning projects; and JPG and HMMH primarily team on sound insulation projects as part of noise mitigation for transportation noise sources, such as the FLL sound insulation program where HMMH assisted JPG with the initial acoustical design and testing for the program.

RS&H and HMMH often flip the prime and sub-consultant roles to match the needs of the client. For example, RS&H is nominally the firm to prime the environmental planning projects, e.g., NEPA, although because aircraft noise was the dominant concern with the Airport and communities, HMMH has been the prime consultant for the last couple of NEPA projects at Chicago O’Hare International Airport under a contract with the FAA.

KHA is predominantly the prime consultant, but having worked with KHA on many recent projects including the Master Plan Update at Louisville International Airport and Fresno-Yosemite International Airport and an on-call planning contract at Aspen Airport, we are well aware of their project management style and know reversing the roles with HMMH as prime will be seamless.

HMMH is typically sub-consultant to JPG for sound insulation projects, but HMMH recently included JPG to assist with a sound insulation project for the Massachusetts Bay Transportation Authority (MBTA) rail extension. Our decades of working together has resulted in seamless project management across the firms.

McFarland-Johnson has worked with HMMH on numerous assignments, including airport-related environmental projects at Bradley International Airport, Lebanon Municipal Airport, Boston-Logan International Airport, and Hanscom Field.

Planning Technology Incorporated is currently working with HMMH on the Newark Liberty International Airport and Teterboro Airport Noise Compatibility Planning projects under Title 14 of the Code of Federal Regulations Part 150 and has become a trusted partner of HMMH through those projects.



Montgomery Consulting Group has been a trusted and strategic partner as a sub-consultant on a large number of aviation noise projects including those at FLL and FXE. We have also used MCG outside of Florida because we know we can rely on the work products and adherence to scope and budget for which such traits are quite welcome from our partner DBE sub-consultants.

Quest has teamed with HMMH on several proposals and is currently working with HMMH on the Lantana Airport Noise Compatibility Planning project under Title 14 of the Code of Federal Regulations Part 150. Quest has become a trusted partner of HMMH for all their public outreach needs in FL.

While HMMH has not worked directly with **KEITH & Associates, Gartek Engineering or AirQuest Environmental**, these sub-consultants come highly recommended from our trusted and long-standing strategic partner, JPG, to assist with sound insulation tasks that may arise from the contract task orders.

A full description and write up of each sub-consultant's qualifications are provided below.

Kimley-Horn and Associates, Inc.

Kimley»Horn Founded in Raleigh, NC in 1967, Kimley-Horn is a full-service engineering, planning, and environmental consulting firm with more than 4,000 employees located in 90+ offices nationwide. The firm provides services in aviation, environmental sciences, ITS, land development, landscape architecture, transit, transportation, urban planning, and water resources.

Kimley-Horn staff have provided engineering, planning, environmental, and surveying services for a large number of federally, state, and locally funded airport projects across the United States. Their experience includes airport planning, design, construction administration, site selection, environmental assessment, and Part 150 noise studies. Kimley-Horn has designed terminal aprons, taxiways, runways, ingress and egress roadway networks, lighting, special signage, landscaping, utilities, and a variety of other landside and airside facilities.

Kimley-Horn prides itself on providing comprehensive landside and airside services tailored to clients' specific needs. The firm's track record includes helping airport owners obtain grants from the Federal Aviation Administration (FAA) and state departments of transportation (DOT) to finance their airport improvement projects. Kimley-Horn is altogether familiar with the procedures and requirements of the FAA and other review and permitting and regulatory agencies whose approval is required for construction of airport projects. Kimley-Horn has been providing engineering and planning services at airports for more than 35 years.

RS&H

RS&H traces its roots back to 1941. For more than seven decades, the firm has developed into a facilities and infrastructure consulting practice that provides value-added solutions to clients around the world. To ensure every client receives the best service and expertise, RS&H is organized into six, client-focused practices: Aviation, Aerospace, Corporate, Defense, Health & Science, and Transportation. Each practice has its own multidisciplinary staff of architects, engineers, planners, environmental scientists, and technical support personnel. These specialists are individually selected for the experience and expertise they provide in specific areas, creating a balanced rounded team well-versed in the nuances of that practice. Each team member is further supported by RS&H's total spectrum of capabilities, encompassing more than 1300 associates at 70 locations worldwide.



RS&H is a leader in the aviation industry, having participated in the preparation of countless industry leading documents and guidelines. RS&H associates help lead the industry in numerous important positions, including holding board and senior level positions at both the national and chapter levels for the American Association of Airport Executives (AAAE), past chair of Airport Consultants Council (ACC), and Associates Board Member with the Airports Council International-North America (ACI-NA).



RS&H provides services to airports throughout the world. RS&H has offices in Florida, California, Colorado, Illinois, Michigan, Minnesota, North Carolina, Ohio, Pennsylvania, Texas, and Utah. With over 240 full-time associates, the Aviation Practice enjoys its own industry-leading, multidisciplinary staff of planners, environmental scientists, engineers, architects, and technical support personnel.

The Aviation Practice is organized around the services generally needed by its aviation clients:

- **Environmental Stewardship and Resiliency** – Environmental regulatory compliance and permitting, environmental efficiency, sustainability and climate adaptation and resiliency.
- **Environmental Planning** – Environmental studies, noise and land-use studies, and permitting
- **Aviation Planning** – Master Plans, financial analysis, security planning, safety management systems, site selection studies, and grant procurement.
- **Airfield** – Runways, taxiways, aprons, and drainage.
- **Buildings** – Terminals, hangars, cargo facilities, administration buildings, and energy services.

The corporate and individual experience of the Aviation Practice staff encompasses the full spectrum of airport clients, ranging from the world's busiest airports to small general aviation and private facilities. As a full-service architectural, engineering, planning, and environmental services firm, RS&H is able to assist aviation clients regardless of the size, location, or nature of the project.

McFarland-Johnson, Inc.



McFarland Johnson

McFarland-Johnson, Inc. (MJ) is a nationally recognized multi-disciplinary firm, providing planning, engineering, and construction services to the aviation industry. For more than 73 years, MJ has provided specialized

services for more than 100 airport facilities, including some of the most important domestic and international air gateways, such as the Fort Lauderdale-Hollywood International (FLL), Boston-Logan International, and Republic Airports. In addition, MJ offers a wide range of value-added services buildings and facilities engineering, environmental, grant administration, dynamic airport planning and visualization technologies, and public outreach.

Throughout the firm's history, MJ has been providing environmental services to airport clients and built a reputation for developing innovative solutions for projects of all sizes. MJ provides a full range of environmental services, including wildlife surveys, rare species investigations, environmental review, NEPA documentation, resource identification/assessment, wetland delineation, Stream Crossing compliance, federal and state environmental permitting, preparation of technical manuals, and regulatory agency coordination. Our staff has worked with the Federal Aviation Administration (FAA), Army Corps, FDOT, FDEP, and South Florida Water Management District (SFWMD) on projects ranging from system maintenance to roadway, parking lot, and airfield design/construction, providing a wide variety of permitting and environmental needs that include NEPA documentation, wetland delineation and mitigation, species identification, Dredge and Fill Permits, invasive plant BMPs, and stormwater treatment systems.

Since 2018, MJ has been successfully providing environmental and airport planning support to the Broward County Aviation Division (BCAD) and become very familiar with BCAD's facilities and operations, particularly through the firm's peer review and development support involvement with the Master Plan Update and implementation of short-term improvements projects. MJ's in-house environmental staff has the capacity and knowledge to undertake the environmental components of this assignment. Further, their staff is readily available to continue providing on-site support to BCAD's staff, as they have done for existing planning and environmental tasks. We offer multi-disciplinary teams of experienced professionals to support any project need.



In addition, MJ has worked with HMMH on numerous assignments, including airport-related environmental projects at Bradley International Airport, Lebanon Municipal Airport, Boston-Logan International Airport, and Hanscom Field.

Planning Technology Incorporated

For more than 29 years, Planning Technology Incorporated (PTI) has been successfully developing and implementing innovative technology solutions supporting airport planning and decision making for an ever-increasing array of airports and aviation industry clients worldwide. PTI tools integrate with off the shelf software and are combined with airport specific data to affordably tailor applications to the needs of individual users. The firm has extensive knowledge and working experience with airports, state, federal, and international agencies along with airport users. PTI works closely with airport staff to identify specific airport needs, design and develop computerized tools, implement successful strategies and implement and support these tools. The firm also integrates the skills of senior aviation planners, highly experienced airspace and air traffic management specialists with highly skilled computer programmers to successfully produce customized solutions.



One of PTI's products is the Interactive Airport Layout Plan (iALP) Tool. Every on-airport project needs to be submitted, reviewed, and approved by the FAA prior to it being built. This review process can be timely based on several factors. The iALP utilizes Computer Aided Design (CAD), imagery, Geographic Information System (GIS), and Airport Layout Plan (ALP) data as a base for linked analytical planning tools. These tools provide proven analytics based on FAA criteria and standards to provide airport staff the accurate answers in reviewing airport development projects. This includes airport environmental data and analytics.

The iALP tool, tailored to the specific needs of each airport to let airport staffs quickly determine how high structures can be built near an airport, is currently utilized at more than 100 airports nationwide.

Montgomery Consulting Group, Inc.



MONTGOMERY
CONSULTING GROUP
PLANNING | ENVIRONMENTAL | ENGINEERING
TRANSPORTATION | AVIATION | INFRASTRUCTURE

For more than 24 years, Montgomery Consulting Group, Inc. (MCG) has provided airport planning and consulting services to airport management, domestic and foreign governmental agencies, architectural/engineering firms, and multi-national lending agencies.

MCG is actively involved in airport development throughout Florida and the southeast and provides experienced airport consulting and planning services required to support an expanding aviation industry. MCG is a privately owned Florida corporation with offices in Orlando and Fort Lauderdale, FL.

MCG provides the following professional services:

- Airport Planning and Consulting
- CAD, BIM and Technical Support
- Construction Inspection
- Civil Engineering
- Cost Estimating and Scheduling
- Disadvantage Business Enterprise (DBE/ACDBE) Goal Setting and Support Services
- Environmental Overviews, Assessments and Environmental Impact Statements
- Geographic Information System (GIS) Solutions and Support
- Market Research and Industry Analysis

- Noise Compatibility Planning and Land Use Analysis
- Public and Stakeholder Outreach
- User Surveys and Benchmarking

MCG is certified as a DBE and Small Business Enterprise (SBE) by Florida Department of Transportation (FDOT) and a Minority Business Enterprise (MBE) by Florida Department of Management Services. MCG also is certified as a Local Developing Business (LDB) Enterprise by the Greater Orlando Aviation Authority.

Quest Corporation of America, Inc.

Quest Corporation of America, Inc. has proudly served airports and the transportation industry since 1995. The firm distinguishes themselves by focusing on the industry they know best - transportation. Quest is a disadvantaged and woman-owned (DBE / MBE) company and the leading transportation communications provider in the State of Florida. The firm has served on dozens of General Engineering, Planning, and District Wide contracts and are accustomed to working on task driven assignments.



Quest offers a wide range of aviation surveys and research services to support long range planning, air service development projects, and economic impact studies. The firm has successfully completed more than 50,000 surveys, serving some of the nation's largest "award winning" airports.

Jones Payne Group



The Jones Payne Group is a multi-disciplinary firm consisting of architects, project managers, construction managers, planners, community specialists, and information technology experts. The firm has contributed to a wide range of aviation, transit, education, commercial, and residential projects for both the public and private sectors, specializing in the areas of noise mitigation, architecture and information management. Regardless of project type or size, Jones Payne delivers exceptional service to accomplish goals in a timely and cost-efficient manner.

Since 1984, Jones Payne has remained at the forefront of the noise mitigation industry, developing innovative products and services to assist communities who face the adverse effects of environmental noise. The Firm's experts specialize in residential sound insulation, facility sound insulation, property management, and program planning.

Residential Sound Insulation – Experience includes the sound insulation of single and multi-family homes as well as apartments, condominiums, and historic buildings. Jones Payne is committed to developing innovative solutions for healthy home environments that meet all regulatory requirements. Working in partnership with airports and transit authorities across the county, the firm's team of experts has managed some of the most complex, multi-year sound insulation programs in existence.

Facility Sound Insulation. Jones Payne has extensive experience managing the sound insulation of a variety of non-residential structures, from schools and churches to community centers and child care facilities. The firm understands the unique issues involved with facility sound insulation and is aware that their work impacts stakeholders' ability to provide or receive service. Through consistent communication and collaboration, Jones Payne addresses client and community needs, providing sound insulation treatments to occupied facilities with little or no disruption to daily activities.

Property Management. Jones Payne provides comprehensive property management support services to land acquisition and homeowner relocation programs. As the single point of contact to clients, the firm works directly with contractors, consultants, and service providers to deliver turn-key services. The Jones Payne team handles all public solicitations and procurements, contracting, permitting, notifications, coordination, management, and

reporting. This system alleviates the need for program sponsors to publicly solicit, negotiate, and contract services from numerous providers, which decreases client workloads, resulting in potential cost-savings to programs.

Program Planning. Noise is one of the most basic land-use compatibility concerns. At major airports and light rail systems, noise is often the most recognized impact felt by the general public. Jones Payne is aware that the tools used to define noise impacts and the planning documents that are created to address those impacts may not provide the assistance required to implement a successful noise mitigation program.

Jones Payne provides implementation support services to airports, transit authorities, and transportation planning firms, ensuring that critical tools are equipped with the necessary measures to produce desired outcomes. In addition to helping develop NEM's and NCP's, the firm provides cost data for programs across the country, identifies land-use issues that can significantly impact program implementation, and conducts research that has influenced national policy. The expertise they have developed – from implementing noise mitigation programs for more than 30 years – has proven to be an invaluable part of the planning process.

Keith & Associates, Inc.

KEITH was incorporated as a Florida corporation in 1998. As a mid-size, close-knit firm of more than 170 professionals, KEITH provides civil engineering, traffic engineering, surveying and mapping, subsurface utility engineering, planning, landscape architecture, construction management, and virtual design and construction services. The firm was founded on the principal of achieving success by combining the latest technology with client oriented business practices and a staff of experienced and talented professionals.



KEITH has provided construction-related services for projects ranging from airport facilities, residential communities, commercial projects and recreational parks including structures, terminals, roadways, parking lots, and utility infrastructures. The best construction management practice is to maintain a close working relationship with all parties involved and to respond quickly and effectively to any issues that may arise. This approach, coupled with the firm's experience and knowledge, offers clients the opportunity to minimize cost overruns and delays during construction through pre-design services, design and construction oversight, and construction administrative services.

Gartek Engineering Corporation



Gartek Engineering Corporation designs mechanical, electrical, plumbing, and fire protection engineering since 1980. They are certified as a SBE (Small Business Enterprise), MWBE (Minority, Women / Disabled Veterans Business Enterprise and DBE (Disadvantaged Business Entity) firm. Their clients in the corporate, municipal, governmental, private, and utility sectors receive quality design services provided by the firm's multidisciplinary team. Gartek

staff have more than 30 years of combined experience and are keenly aware of the latest engineering developments and code requirements.

More than 30 years in the engineering field have taught Gartek to recognize the complexity of projects of this kind, the sensitive nature of working in occupied spaces and the potential need for forensic investigations that may be required to effectively complete tasks assigned under this contract. The firm has learned from successful team experience with residential and sound insulation projects that the places where people work, live, and play present unique challenges to design environments. Gartek's expertise with residential projects, such as The Sanctuary at Key Largo, Pineapple Grove Village in Del Ray Beach, and New Hope Overtown, Miami, FL., includes design of new facilities as well as entire rehabilitation of existing structures. Gartek has provided Mechanical and Electrical services on various projects involving sound insulation measures including the Broward County Aviation Department, Residential Sound Insulation Program, Ft. Lauderdale – Hollywood, FL., Gusman Center for the Performing Arts, Miami, FL., Florida Memorial College Theater for the Performing Arts, and Miami's Little Haiti

Cultural Campus and Theater. Gartek's engineers understand the importance of verifying existing conditions and performing due diligence in the early stages of a project to identify and resolve potential problems. We are accustomed to rolling up our sleeves and climbing roofs, crawling above ceilings, walking utility tunnels and whatever it takes to verify existing conditions and get the job done.

AirQuest Environmental, Inc

For 17 years, AirQuest has delivered cutting edge innovative solutions to environmental and industrial hygiene challenges. The firm is known as an industry architect, working across disciplines and with various stakeholders to identify, assess, and improve environmental health and safety for clients.



AirQuest's personnel have worked in nearly every setting in society, including military installations, government buildings and operations, firing ranges, and on marine vessels. The firm's robust client list includes the Department of the Navy, US Fish and Wildlife Service, Bureau of Land Management and the Smithsonian Institution. AirQuest project locations range from the middle of the Pacific, to more than 35 of the United States, to the Caribbean. The firm's core competency is industrial hygiene consulting services, with specific concentrations in asbestos, lead paint, indoor air quality, radon, and worker exposure evaluations.

Key Staff Qualifications and Relevant Experience

HMMH professionals are dedicated, caring, responsible individuals who enjoy both the challenge of using their quantitative, analytical and communication skills and the camaraderie of contributing in a team environment. We not only instill these traits in our staff, but also seek out partner organizations with similar and complementary traits. We have carefully and intentionally selected key staff based on proven success, familiarity with Broward County Aviation Department (BCAD), specifically FLL, and the required qualifications and ability to successfully provide the highest caliber environmental planning and acoustical consulting services to BCAD.

HMMH Inc.

Mary Ellen Eagan, Principal-in-Charge

As President, CEO and Chairman of the Board of Directors of HMMH, Mary Ellen is responsible for providing strategic leadership for the company and management to establish long-term goals, strategies, plans, and policies. Ms. Eagan became HMMH's third President in July 2004 and was appointed CEO and Chairman in 2012.

In addition to her corporate responsibilities, Ms. Eagan is principal-in-charge for some of the firm's most challenging projects, including Part 150 Noise Studies for the Port Authority of New York and New Jersey, on-call consulting to the Maryland Department of Transportation Maryland Aviation Administration, and providing support to the Federal Interagency Committee on Aircraft Noise.

Ms. Eagan is very active in the industry. She is past-Chair of the Transportation Research Board's Aviation Group, and Board Chair of the Airport Consultants Council. She is also actively involved with Airports Council International, serving as vice-chair of the Noise Working Group and a Business Partner to the ACI World Environment Standing Committee.

Rhea Gundry, Project Manager

Rhea Gundry has more than 10 years of experience overseeing a wide range of aviation noise consulting projects involving system-wide studies and comprehensive environmental documents. As a Principal Consultant, Rhea manages a large variety of environmental noise and air quality projects with an emphasis on aviation noise and National Environmental Policy Act (NEPA) documentation. Her experience ranges from public outreach and community engagement to modeling programs involving comprehensive aircraft noise challenges.

Ms. Gundry currently serves as the Project Manager for On-call Acoustical Consulting Services contracts for the Maryland Department of Transportation, Maryland Aviation Department, the Sacramento County Department of Airports, and the Port of Oakland. She is very familiar with the nature of On-call work and providing her Airport clients with the as-needed support as an extension of their staff. She understands the political atmosphere and need to swiftly respond admits ad-hoc public pressure.

Ms. Gundry has worked with BCAD since 2009 and currently serves as HMMH's project manager for the BCAD acoustical consulting services on-call contract working in close coordination with BCAD project manager Winston Cannicle and has served in a Project Management role since 2017.

Katherine Preston, ENV-SP – Assistant Project Manager

Katherine Preston brings extensive experience in environmental policy and government affairs, with a passion for sustainability and proven project management skills. Throughout her career, Katherine has demonstrated exceptional organizational abilities, enthusiastic collaboration with diverse stakeholders, and effective communication with clients, government officials and industry peers.

Ms. Preston currently leads HMMH's Sustainability and Energy Practice, serving a wide range of clients. She manages multiple concurrent projects that involve extensive stakeholder engagement activities. She has managed traditional environmental review projects, renewable energy feasibility studies, federal research projects for the Transportation Research Board, developed regulatory guidance, and community outreach tools. Ms. Preston is an active member of several industry trade associations including the Florida Airports Council Environmental Committee. In her prior role as Senior Director, Environmental Affairs at the Airports Council International – North America, Ms. Preston managed environmental policy, regulatory affairs and sustainability for the organization, representing over 350 U.S. and Canadian airports. Ms. Preston managed projects involving hundreds of participants through the ACI-NA Environmental Affairs Committee and technical working groups. In addition, while at ACI-NA she formed strategic partnerships with the U.S. Green Building Council (USGBC) and Institute for Sustainable Infrastructure (ISI) to collaborate ways to facilitate the use of USGBC's LEED and ISI's Envision infrastructure sustainability rating system in the airport industry. Ms. Preston also oversaw the implementation of the Airport Carbon Accreditation program in the U.S. and Canada from 2014-2017.

Brad Nicholas – Noise Acoustical Modeling Specialist

Brad Nicholas leads projects that include on-call airport noise support, airport noise compatibility planning projects (14 CFR Part 150), National Environmental Policy Act (NEPA) studies, public outreach, and aviation noise field measurements and data processing. He provides the technical lead on a variety of projects by performing airline fleet analysis, aircraft noise measurements and analysis, flight track and aircraft identification data analysis, and aircraft noise modeling. He is an experienced user of the Federal Aviation Administration's airport and airspace noise, emissions, and fuel burn model, the Aviation Environmental Design Tool (AEDT), and the lead instructor for HMMH's AEDT and Airport Noise Control Practices courses. Additionally, he has completed many detailed acoustical modeling projects using Braunstein + Berndt's SoundPLAN.

Mr. Nicholas' recent experience includes extensive analyses of airport ground noise issues at Philadelphia International Airport, Vancouver International Airport, Boston Logan International Airport, Tweed New-Haven Airport, T. F. Green State Airport, General Mitchell International Airport, Port Columbus International Airport, and Reid Hillview Airport.

Gene Reindel – NOMS Specialist

As the Director of Business Development of the Aviation Environmental Services and Vice President, Gene Reindel oversees a wide range of aviation noise consulting projects, offers industry experience to those projects and provides technical support to community noise forums throughout the U.S. His professional experience includes environmental projects, including National Environmental Policy Act (NEPA) and state equivalents in California,

Oregon and Washington; 14 CFR Part 150 Airport Noise Compatibility Planning studies; 14 CFR Part 161 Airport Noise and Access Restriction projects; aircraft ground noise studies including low-frequency noise and ground run-up enclosures, residential sound insulation projects, and noise modeling of aircraft operations. He is often involved in preparing for and directing major field measurement programs and advising on the acquisition and analysis of data. Mr. Reindel is a trained facilitator and leads public outreach programs associated with controversial noise studies and programs.

Mr. Reindel brings his vast knowledge of Airport Noise Compatibility Planning under Title 14 of the Code of Federal Regulations Part 150 having completed such projects ranging from general aviation airports including Merrill Field Airport in Anchorage Alaska and Reid-Hillview Airport in San Jose, CA (where Emilia Earhart began her flying career), to large hub airports including Newark Liberty International Airport (EWR) in New Jersey. As the assigned Project Manager for the EWR Part 150, Mr. Reindel was critical in the meetings with the FAA discussing all four of their on-going Part 150s as it was clear in those meetings he understood Part 150 as well as and sometimes better than the FAA. The Port Authority of New York & New Jersey continues to be complimentary of Mr. Reindel's grasp of the regulation. His grasp of the Part 150 regulation is well rounded as he has not only completed a number of Part 150 projects, but has also been involved in the implementation of noise compatibility program measures, such as the acquisition, installation and staff training of airport noise and operations monitoring systems (NOMS) having completed over a dozen such installations; the acoustical design and testing services related to airport sound insulation programs having been involved in over 20 programs; the completion of Airport Noise and Access Restriction projects under Title 14 of the Code of Federal Regulations Part 161 having led one such project in Los Angeles, CA; completion of a large number of ground noise studies, some of which led to the installation of noise barriers or ground run-up enclosures (GREs); and similarly the completion of research studies such as low-frequency noise at San Francisco International Airport, Minneapolis – St. Paul International Airport, and Baltimore/Washington International Thurgood Marshall Airport.

Mr. Reindel has supported and presented at the FLL Airport Noise Advisory Committee on a number of occasions and assisted in setting up the acoustical design and testing processes for the FLL residential sound insulation program resulting from the Runway Extension EIS as required noise mitigation. In addition Mr. Reindel has working relationships with FAA including the Office of Federal Aviation Environment and Energy (AEE), the Office of Airport Planning and Environment Division (APP), community outreach staff within the Air Traffic Organization and the noise ombudsman/community engagement officer for the southern region, Jose Colon, as a result of his work as the technical consultant to the Charlotte Douglas International Airport Community Roundtable.

Diana Wasiuk – Senior Advisor

As Vice President and COO, Ms. Wasiuk is responsible for managing the operational aspects of HMMH and assisting the Chief Executive Officer (CEO) in achieving strategic and sustainable growth. Through her constructive and energetic style, guided by the objectives and values of HMMH, Ms. Wasiuk provides the leadership, management and vision necessary to ensure that HMMH operates with proper operational controls, administrative and reporting procedures, and people systems to meet client needs, ensure operating efficiency and sustain financial viability.

Ms. Wasiuk is also responsible for overseeing HMMH's consulting practices, including project delivery, financial performance, and client satisfaction. Ms. Wasiuk served as the program/project manager for several complex and controversial airport environmental and planning efforts such as the Environmental Assessment for the 8.5 billion dollar capital improvement program at O'Hare International Airport and the North Texas Metroplex Environmental Assessment under the FAA's Optimization of Airspace Procedures in the Metroplex (OAPM) Program. Ms. Wasiuk often serves as project QA/QC SME and ensures adherence to the HMMH QA/QC best practices and proper review for scientific methods, deliverables and data generated under projects.

Kimley-Horn and Associates, Inc.

Frank Suarez – Environmental Planning and Regulatory Compliance, On-Call Program Management

Frank is an environmental scientist experienced in wetland delineation, habitat mapping and assessment, protected species surveys, environmental regulatory permitting, and monitoring success of wetland mitigation areas. He is experienced in identifying vegetation and determining hydric soils characteristics. He has conducted surveys for gopher tortoise, scrub jay, caracara, grasshopper sparrow, sand skink, bluetail mole skink, and everglades snail kite. He is highly proficient in estuarine biology and ecology. Frank is also proficient with ESRI and ArcGIS Geographic Information Systems software.

Tom Fucigna – Wetlands and Protected Species, Permitting and Agency Coordination

Tom has more than 30 years of experience in environmental consulting, serving public and private clients, providing environmental due diligence services, protected species surveys and management plans, wetland delineation and permitting, habitat management plans, permit feasibility assessments and alternatives analyses, and preparation of NEPA Environmental Assessments and Environmental Impact Statements.

Rick Browne, CHMM – Wetlands and Protected Species, Site Investigation and Rehabilitation

Rick has seven years of experience providing environmental support services, including Phase I and Phase II environmental site assessments, soil and groundwater sampling involving petroleum contamination and hazardous waste, and brownfield site inventories. In addition, Rick has research and internship experience in surface water quality monitoring and in the design and testing of surface water quality remediation systems for a public water utility. Rick also supports the Kimley-Horn environmental team with Natural Resource Assessments, wetland delineation and permitting and listed species surveys. Most recently Rick has led the land use mapping, wetland delineation, and UMAM assessments for a 4,200-acre mine expansion.

Mallory Clancy, P.E. – Site Planning and Permitting, NPDES

Mallory has six years of experience in environmental engineering and stormwater management. She previously served as district engineer for 14 community development districts in Lee, Collier, and Sarasota counties while with another firm. She also served as a national pollutant discharge elimination system (NPDES) permit consultant for five municipalities. She has developed and updated stormwater master plans for the City of Sanibel and the Hatcher Springs Watershed in Tennessee. Mallory has also worked as a lead design engineer on well-field pipelines and a new well pump design project for the City of Valdosta. Her software experience includes ICPR 4, xpswmm2011, SWMM 5.0, and ArcGIS.

Sarah Johnson – Agency Coordination, NEPA

Sarah has 15 years of extensive experience managing and conducting public and private sector projects, biological assessments, permitting, species-specific surveys, GIS, and photointerpretation. She has experience with NEPA documentation, including natural resource evaluation reports, re-evaluations, environmental certifications for minor projects, and Section 4(f) Determination of Applicability. She has been the environmental lead on projects with entities such as FDOT Districts One, Five, and Seven; Lee, Collier, Hillsborough, Pinellas, Sarasota, and Nassau counties; and numerous water management districts. Sarah is knowledgeable about the PD&E guidelines used for development of transportation projects by FDOT, the NEPA process, and the permitting guidelines for various agencies for projects that impact wetlands and/or protected species. Additionally, Sarah has direct experience conducting protected species surveys for the Florida bonneted bat, bald eagle, crested caracara, Florida scrub-jay, Big Cypress and Sherman fox squirrel, gopher tortoise, red-cockaded woodpecker, wood stork, West Indian manatee, sand skink, Florida sandhill crane nests, protected wetland dependents wading birds and shorebirds, snail kite, and Florida burrowing owl. She also has extensive knowledge on the mitigation requirements for impacts to wetlands and protected species. Sarah has assisted FDOT in reviewing minor project design plans in ERC and documenting the information required to complete environmental certifications within the SWEPT platform for both state and federally funded projects.

Tad Hardy, P.E. — Noise Reports and Monitoring

Tad is a transportation engineer specializing in the preparation of NEPA documentation as well as traffic noise analysis and mitigation. He has been involved in the preparation of multiple levels of environmental documentation for a variety of projects ranging from simple bridge replacements to roadway widenings and complex interchange improvements. Tad also assists with conducting community studies and coordinating public outreach efforts and has participated in numerous public involvement meetings. He has also successfully completed the National Highway Institute Highway Traffic Noise and FHWA TNM 2.5 courses and has provided traffic noise data collection and analysis services for multiple projects throughout the Southeast. He is proficient in the use of GIS and traffic noise modeling software, including ArcMap and TNM 2.5.

Bill Spinner, P.G. — Environmental Site Investigation and Rehabilitation Services

Bill has more than 15 years of experience with conducting and managing assessment and remediation projects involving brownfield sites, hazardous waste, industrial waste, petroleum contamination; and regulatory reporting. He is experienced with environmental site assessments, environmental compliance, RCRA, CERCLA, and state hazardous waste and petroleum cleanup programs. Bill has conducted several Phase I and II environmental site assessments on commercial and industrial facilities. As project manager for the FedEx Logistics Facility in St. Petersburg, Bill conducted Phase I and II environmental site assessments on a closed Class III landfill. For the 226 Main Street brownfield site in Wauchula, Bill was project manager providing the environmental assessment and remediation of identified contamination associated with an underground storage tank.

Brad Tompa, P.G. — Environmental Site Investigation and Rehabilitation Services

Brad has 28 years of experience in environmental consulting and managing Brownfield projects. His experience includes cooperative negotiations with regulatory agencies regarding Brownfield Site Rehabilitation Agreements (BSRA) and Site Closure. Areas of expertise consist of Phase I and II Environmental Site Assessment and Evaluation; Industrial Compliance/Environmental Management Systems; Site Remediation; Petroleum Contamination Assessments; Health and Safety Plans; Landfill Groundwater and Gas Migration Monitoring and Assessment; Spill Prevention Control and Countermeasures (SPCC)

David Goldman, P.G. — Environmental Site Investigation and Rehabilitation Services

David has 31 years of experience in conducting and managing remediation projects involving hazardous waste, industrial waste, and petroleum contamination. He is experienced with environmental compliance, RCRA, CERCLA, and state hazardous waste and cleanup programs. David has been involved with the assessment and remediation of metals such as lead, chromium, arsenic, barium, zinc, petroleum compounds, Polynuclear Aromatic Hydrocarbons (PAHs), chlorinated solvents, and pesticides. He has completed numerous CAP/CAR/RAP projects under consent order from the FDEP Northeast District and RI/FS investigations under CERCLA, RCRA, and consent order. He has extensive experience and success with expedited site assessment technologies and field screening techniques. David has also provided expert opinion on chlorinated solvents and contaminant transport against leading peers within the industry.

Jason Sheasley, P.G. — Environmental Site Investigation and Rehabilitation Services

Jason has 27 years of experience involving water resources, hydrogeology, and geology. He has managed geologic and hydrogeologic investigations for the characterization of subsurface contamination at commercial and industrial sites nationwide. His experience includes due diligence; Phase I and Phase II environmental site assessment reporting; the development of Brownfield sites and environmentally-impacted properties; and environmental compliance under RCRA, CERCLA, and state hazardous waste programs. Jason has directed and managed projects relating to the characterization and remediation of soil and groundwater contamination, provided technical oversight for the development of regional groundwater management policies, and is familiar with the use and application of geographic information systems (GIS) (ArcView, ArcInfo, ArcSDE).

Chris Niforatos, P.E. — Sustainability and Resiliency, On-Call Program Management

Chris has 25 years of experience specializing in developing opportunities and delivering services in stormwater, watershed, and flood risk management; climate change adaptation; and asset management. He is also Kimley-Horn's National Resilience Practice Leader with a strong background in vulnerability assessments and the development of resilience plans for coastal communities. Chris has extensive expertise with resiliency planning, climate adaptation, and asset management. Chris has a successful record of leading communities through the resiliency planning process and designing a resiliency plan that is deliberate, customizable to the values of the community, and implementable. In addition, Chris has served as project manager and technical lead on a variety of risk-management projects ranging from undertaking countywide asset condition assessments to delivering hardening plans for critical infrastructure to devising energy management strategies.

Denise Palmatier, P.E. – Sustainability and Resiliency

Denise has 27 years of experience in the planning, design, and construction management of water restoration and capital improvement projects for stormwater treatment and flood control projects. Her engineering background includes water resource projects and water treatment areas, as well as the infrastructure associated with flood control and related communications. As a result of her involvement on these projects, she has developed skills related to planning and feasibility studies, permitting, scheduling and cost estimating, and public outreach on environmental projects. In addition, she has extensive experience with water restoration and water supply project planning and design, and familiarity with relevant regulatory and environmental requirements for expediting projects.

Angelina Fairchild P.E., LEED AP – Sustainability and Resiliency

As a lead engineer in our structural division, Angelina Fairchild has 32 years of experience and is responsible for project management, production, scheduling, personnel coordination, and quality control. Angelina's experience includes implementing projects from conceptual design and plan preparation through construction. She has been involved in the design, rehabilitation, repair, construction, and inspection phase services on a variety of structural engineering projects that have included conventional reinforced concrete, precast, prestressed concrete, post-tensioned concrete, and structural steel on bridges; industrial and commercial buildings; parking decks; highway structures; and retaining walls. The Florida Engineering Society (FES) has recognized Angelina as a leader in her field several times: In 2018; she was awarded Engineer of the Year; in 2010, she received the award for Outstanding Service to the Engineering Profession; and in 2000, she was selected as Young Engineer of the Year.

James Pankonin, PLA, ASLA, LEED AP – Sustainability and Resiliency, Green Infrastructure

James has over 15 years of landscape architecture experience. He is a LEED Accredited Professional with a thorough knowledge of the design process from conceptual design through construction documents. His project experience includes master planning and programming, parks and recreation design, site planning, streetscape design, amenity center programming and design, custom hardscape design and detailing, construction phase services, project team coordination, and preparation of presentation graphics. He has worked within county regulations to implement low impact development practices (such as bioswales and rain gardens) to capture and treat stormwater runoff. He is a member of the American Society of Landscape Architects and U.S. Green Building Council.

Steve Cornell, P.E. – Sustainability and Resiliency, On-Call Program Management

Steve has more than 30 years of progressive experience with varying roles as an owner, consultant, and contractor in the planning, design, and construction of complex airport development programs. His extensive experience includes new greenfield airports as well as expansion, redevelopment, and rehabilitation of airside, landside, and terminal facilities for airport clients across the U.S. and on four continents abroad.

Steve is an expert on the efficient and effective use of alternative project delivery methods. He co-authored the "Airport Owner's Guide to Project Delivery Systems" and has served as a subject matter expert at specialty conferences. Steve is passionate about the integration of advanced technologies into the built airport

environment; he has presented on this subject at global airport conferences and holds a U.S. Patent (US 9,085,375 B2) for the "Automated Terminal to Aircraft Conveyance System."

Jill Capelli, P.E. – On-Call Program Management

Jill specializes in landside analysis, traffic engineering and transportation modeling/planning. She has more than 19 years of experience using multimodal simulation modeling, intersection analysis, stop controlled warrant analysis, and training in simulation software, including supporting more than 15 airports across the country with these services. Some of Jill's key projects include surface transportation modeling of the on-airport systems at Chicago O'Hare international Airport and on-airport transportation modeling at Fort Lauderdale-Hollywood International airport. She is also well-versed in pedestrian simulation for terminal planning and is a leading user of Kimley-Horn's Advanced Land-Transportation Performance Simulation (ALPS) computer modeling and analysis program suite. ALPS allows for creation of simulations encompassing the various pedestrian and vehicular movements within a multimodal transportation environment. For airports, the ALPS model is demand driven, with activity generated based on the airport flight schedule and air passenger activity. The assembly of roadways, curbs, parking facilities, transit systems, pedestrian walkways, elevators, ticket processing counters, security screening points, concession areas, and other such subsystems can all be simulated to study how changes to one subsystem affect the performance and operation of all other subsystem

Erin Emmons, GISP – On-Call Program Management

Erin has 14 years of experience as a multimodal transportation planner with a specialty focus in GIS. Her experience includes the development of long-range transportation plans and agency master plans for State MPO's and counties and the development of strategic plans associated with asset management, capital investments and regulatory compliance. Erin has been task manager on several Florida DOT District office aviation projects involving statewide general aviation airport security assessments, airport zoning and land use compatibility analysis, as well as the development of an aviation emergency response guidebook.

Pam Turner, GISP – On-Call Program Management.

Pam is dedicated to GIS and Geospatial Services and the use of these technologies to provide enhancements to projects of all disciplines. She brings 18 years of specific experience using GIS software to support a variety of client types. She specializes in using geospatial data and analysis for asset management and disaster management applications including the generation of methodology for hazard mitigation assessments and risk and vulnerability analysis. She has used her skills to solve geospatial problems in the fields of pandemic health, water resources, environmental applications, transportation planning, and with the U.S. Navy to maintain shore installation infrastructure and asset data. Her background includes implementing data sharing agreements, data model design, implementation of web-based GIS systems, automation of geoprocessing, and conducting user level GIS training using ESRI software. Pam is proficient in a number of software packages including ESRI ArcGIS Desktop applications, ArcGIS Pro, ArcGIS Enterprise, and various ESRI APIs. Recently she has focused on using GIS to implement asset management for utility, airport, and private sector clients. These include assisting with data collection and analysis for the development of Pavement Management Plans for retail clients and airports.

RS&H

Mr. D. Ben Chandler, Jr., PG. LEED AP – Sustainability and Energy Consulting

Mr. Chandler is a Senior Environmental Specialist for the Jacksonville based Sustainable Solutions Service Group. Serving as Senior Project Manager, his responsibilities include technical and quality assurance expertise for a wide assortment of sustainability and traditional environmental compliance/assessment projects. Mr. Chandler has 30 years of environmental consulting experience supporting the needs of a variety of Government entities, including Airport Authorities, and private businesses. In Florida, Mr. Chandler has successfully managed environmental projects at FLL, TPA, PIE, PCM, Patrick AFB, DAB, GNV, JAX, and PNS. His experience includes Phase I and Phase II Environmental Site Assessments, Spill Prevention, Control, and Countermeasure Plans, Underground Storage Tank Investigation and Removal, Rainwater Harvesting Investigation, Waste Characterization Studies, Environmental

Compliance, and Environmental Design. Mr. Chandler received his Bachelor of Science in Geology from the University of Southern Illinois. He is a licensed Professional Geologist in the States of Florida, Alabama, Texas, and Indiana and has achieved the GBCI accredited professional status for LEED.

Jason T. DiGuglielmo, LEED AP, CIE – Site Investigation Services

Mr. DiGuglielmo has more than 18 years of professional experience in site investigation services, indoor air quality investigations, soil and groundwater remediation, environmental site assessments and compliance, and inspection of stormwater erosion and sedimentation control. Mr. DiGuglielmo’s experience also includes observation of subcontractors and supervision of projects involving collection of field data.

Kate Lindekugel, Airport Wetlands – Site Investigation and PFAS Consulting

Ms. Lindekugel has more than 16 years of experience including ecological surveys and field studies, Waters of the U.S. (WOTUS) delineations and functional assessments, preparing environmental reports and permits (CWA 404/401, EIS, EA, SWP3, SWMP and MS4 NOIs, SPCC, CLOMR, and others), data management, water quality monitoring, sampling, and testing, stream channel and wetland restoration, peer reviewed research, and coordinating with local, state, and federal regulatory agencies, as well as public and private stakeholders. In addition to these activities, she also conducts wildlife and threatened and endangered species surveys. She has worked on projects for airports in California, Texas, Oregon, Georgia, North Carolina, Michigan, and Louisiana, as well as other clients such as Departments of Transportation; Regional Mobility Authorities; cities, counties, and other municipalities; 404 mitigation bank sponsors; and non-profit conservation firms.

Benjamin J. Moore, AICP, LEED AP O+M, GPCP – Sustainability and Energy Consulting

Mr. Moore lead’s RS&H Sustainability Service Group. He has more than 12 years’ experience providing environmental management, energy efficiency, alternative fuels, land use / transportation planning and climate change mitigation / adaptation services on behalf of aviation, federal, local government and private sector clients. He directs, manages or supports programs and projects related to facility energy and water use, greenhouse gas emissions, mobility systems, alternative fuels, materials management, and green building, among other topics.

Rikki A. Vela, ENV SP – Sustainability and Resiliency Consulting

Ms. Vela has a broad experience in airport planning and environmental stewardship at RS&H. Within the Environmental Stewardship and Resiliency group, she has provided environmental / sustainability management, climate change mitigation / adaptation and master planning services to numerous airports nationwide. She has experience working with airports to determine entry points for integrating sustainability and resiliency into Airport’s typical planning processes to create a culture of responsible and sustainable growth within a facility. Additionally, Ms. Vela utilizes her Envision Sustainability Professional (ENV SP) credential from the Institute for Sustainable Infrastructure’s Envision Framework to approach sustainable infrastructure development at airports.

McFarland-Johnson, Inc.

John Mafera – Sr. Airport Planner

John is a highly motivated airport consulting professional with more than 22 years of experience in airport planning, design, and project and program management, serving both large and small commercial service airport clients. John’s expertise encompasses: land development plans, airport strategic plans, airport business and commercial development plans, airport master plans, airport land use planning, eALP/AGIS programs and ALP updates, noise compatibility studies, airport site selection and feasibility studies, heliport design, environmental assessments, including streamlining the NEPA review process, EMAS and runway safety area studies, aviation forecasting, airport capacity studies and airspace and obstruction analyses. He has extensive experience in assisting airports with diversifying and enhancing airport revenue sources through market-based land use planning and targeted land development of aeronautical and non-aeronautical properties. This includes market assessments, highest and best use analyses, flexible land and site development concepts and market deployment plans for land portfolios from several to several hundred acres. John’s key projects include the BCAD Bomb Blast Analysis for FLL

Terminal Connectors; BCAD NEPA Purpose and Need Documentation for Landside Projects, BCAD NEPA-CATEX for West Side Dry Retention Pond, NEPA Analysis for BCAD 2019 Capital Improvement Projects, and BCAD NEPA-CATEX for FLL North; and Dynamic Master Plan & e-ALP Update, Greenville-Spartanburg International Airport.

Jeffrey Wood, CSDP – Sr. Environmental Analyst

Jeff has worked with more than 40 airport clients, providing a wide array of environmental services. His expertise includes preparation and management of NEPA Categorical Exclusion Documents, Environmental Assessments, and Environmental Impact Statements for a variety of projects. Jeff has expert knowledge of FAA requirements and compliance with the NEPA. His background includes extensive experience performing wetland delineations and mitigation designs, natural resources inventories, threatened and endangered species habitat surveys, traffic and airport noise studies, air quality studies, and wetland permitting. He is also very familiar with the Airport Improvement Program (AIP) and serves as an FAA liaison. In addition, Jeff is adept at integrating operational needs with AIP requirements to develop Airport Capital Improvement Programs, and he has a track record of success obtaining funding for controversial projects. Jeff is a frequent presenter on airport sustainability issues, including recent presentations to the Finger Lakes Chapter of the U.S. Green Building Council and the New York Aviation Management Association. He is also certified as a Sustainable Design Professional through the Association of Energy Engineers. Jeff’s key projects include the BCAD NEPA Purpose and Need Documentation for Landside Projects; BCAD NEPA-CATEX for West Side Dry Retention Pond; NEPA Analysis for BCAD 2019 Capital Improvement Projects; BCAD NEPA-CATEX for FLL North Airfield Pavement Rehabilitation; and Runway 5-23 Rehabilitation Feasibility Study, Morristown Municipal Airport.

David Rosa – Sr. Environmental Scientist

David has more than 20 years of experience in the environmental field, including preparation of National Environmental Policy Act (NEPA) documents, compliance, coordination, permitting, studies, compensatory mitigation, monitoring and environmental management. His project experience includes work in Florida, New York, Puerto Rico, the Caribbean and the U.S. Virgin Islands. He has served as a project manager, environmental compliance officer and permit coordinator for different types of projects requiring the ability to effectively handle multiple tasks in a fast-paced environment. In those positions, he gained valuable experience in regulatory compliance including preparation of alternative analysis, NEPA documents, agency coordination plans, environmental permit applications, technical reports, monitoring plans and other environmental documentation. He has developed on Stormwater Pollution Protection Plans (SWPPP) and Spill Protection Control and Countermeasure Plans (SPCCs) for airport and industrial facilities, Environmental Protection Plans (EPPs) for U.S. Army Corps of Engineers (USACE) projects, and other plans associated with different regulations, codes and standards. He is also a FL Stormwater Erosion and Sedimentation Control Inspector certified by the Florida Department of Environmental Protection (FDEP) and possess a Certificate in Airport Environmental Management from the Airport Council International. David’s key projects include the BCAD NEPA Purpose and Need Documentation for Landside Projects; BCAD Design Build Projects for Expansion of Runway 9R-27L, Taxiway, Relocation of NE 10th Street and Improvements to NE 7th Street; and Palm Beach County Department of Airports Environmental Compliance Support Services.

Thomas Wirickx, CSE, PWS, QAWB – Qualified Airport Wildlife Biologist

Tom is experienced in a wide range of environmental work, including wildlife hazard assessment and management plans, environmental and ecological assessments, environmental impact statements, NEPA and SEQR compliance, wetland delineations, rare and endangered species surveys, and environmental permitting, as well as stream and wetland mitigation planning, design and monitoring. He is certified as a Professional Wetland Scientist by the Society of Wetland Professionals and is a Certified Senior Ecologist through the Ecological Society of America. In addition, Tom is one of only eight individuals across the Northeast (and 56 nationwide) currently recognized by the Federal Aviation Administration as a Qualified Airport Wildlife Biologist in accordance with 14 CFR 139.337 and AC No. 150/5200-36A. Tom’s key projects include the Key West International Airport Access Road Environmental Services; Greenville-Spartanburg auto Parking Expansion and Master Plan Update; Wilmington Master Plan;

Rutland Airport Wildlife Hazard Assessment; and Niagara Falls International Airport Obstruction Removal Environmental Assessment.

Planning Technology Incorporated

Robert V. Ori – Principal

As Principal of the firm, he is responsible for coordination, technical conduct and quality control of company tasks. His specialty includes identifying, developing and implementing state of the art computer technology applications in the aviation planning arena. Areas include CADD, three dimensional modeling, simulation, GIS, web-enabled applications, wireless applications development and high end computer generated graphics. Also, he has numerous years of experience in airfield and airspace planning and analysis. Programs he successfully developed include the Three-Dimensional Airspace Analysis Program (3DAAP), Interactive Airport Layout Plan (iALP) system and the Interactive Airfield Assistance Tools (iAAT). He is also continuing to work with the FAA aiding in the implementation of Airports GIS (AGIS) tools for prototype airports consistent with Advisory Circulars 150/5300-16, 17 and 18b and the new 18c.

Kenneth J. Scarborough – Senior Specialist

In this role, he is responsible for managing all aspects of projects to assure the client's needs are met and the contract deliverables are prepared on-time and on-budget. Mr. Scarborough's areas of expertise include inner-airspace design as it applies to evaluation of allowable building heights on or near airports, airfield geometry planning, airline gate analysis, and airfield simulation for demand/capacity evaluation. From his over 20 years of professional experience he has been responsible for design, development, and implementation of height zoning ordinances in major metropolitan areas working extensively with airline performance engineers, the Federal Aviation Administration, airport senior management, and developers to define solutions potential conflicts allowing for economic development without impacting safety criteria. Mr. Scarborough has also performed numerous gate analyses for airports including facilities in Aruba, Baltimore, Boston, Mexico City, Montego Bay, Orlando, Providence, San Juan, St. Croix, and four airports in Peru to accommodate changes in aircraft fleet mix while maximizing use of available apron space and minimizing costly reconfiguration of existing loading bridges or fuel pits.

Mike Alberts – Senior Specialist

Mr. Alberts has 26 years of aviation noise, environmental, and land use planning experience at air carrier and general aviation airports throughout the United States and around the world. 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, public involvement, and off-airport land use compatibility planning. He is an expert in the use of the FAA's Aviation Environmental Design Tool (AEDT) and the U.S. DOD's NOISEMAP model.

Montgomery Consulting Group, Inc.

Monty Gettys has more than 35 years of experience in planning, environmental analysis and engineering design for airport and aviation-related projects. Ms. Gettys has extensive planning experiences including master plan and facility development, industry research, feasibility studies, forecasting, demand/capacity analyses and alternative analyses and capital improvement program development for airport development.

Ms. Gettys has significant recent and relevant expertise in noise compatibility planning, airport land use issues both on and off airport property, environmental assessments, public outreach, airport economic development, airport business planning and cost consulting expertise for airside and landside projects. For cost estimating assignments, Ms. Gettys conducts quality assurance on estimates, leads research on current pricing, and works hand in hand with the engineer/architect-of-record to clarify issues of constructability and phasing.

Prateek Sharma is a Senior Project Manager and CAD/GIS/BIM Manager with more than 15 years of experience in planning for transportation, airport, and infrastructure projects. Mr. Sharma brings an array of advanced technical skills, including CAD, BIM and GIS software expertise and software application development. He manages MCG's CAD/GIS/BIM staff. He has also performed web application development incorporating the software development cycle, and been involved in software development through implementation and maintenance.

Quest Corporation of Americas, Inc.

Beth Zsoka is an experienced communications professional who serves public-sector clients throughout Florida and the United States. She excels in public involvement / information, market research, consensus building and community outreach. Ms. Zsoka is skilled at identifying potential issues and working with her clients to find workable solutions. She has strong writing, event planning and communication skills. Her background includes developing and implementing effective surveys; communicating and educating the public about project concerns; forming and managing effective working groups and task teams; and hosting successful events, meetings and workshops. Ms. Zsoka has served on projects in the area from transit and aviation to traditional road and bridge projects. She has served as the lead for Quest on several planning, PD&E and aviation projects including projects with the Airport Cooperative Research Program (ACRP); Florida Department of Transportation (FDOT) Economic Impact Studies; Georgia Department of Transportation (DOT) Economic Impact Study; Focus Groups with the Palm Beach International Airport, and survey efforts for Miami International Airport.

Nannette Rodriguez is bilingual and bi-cultural and has more than 25 years of nationally recognized internal and external government and public-sector public relations and marketing experience. She successfully leads, manages, coordinates, and executes communications strategy across diverse platforms and tactics. Her vast experience has developed her into an expert in media relations, social media, crisis communications, digital media, publishing, multi-platform copywriting/editing, branding, reputation management, advertising/marketing, community relations and outreach, government affairs, special events, and video production. As senior communications manager for Quest Corporation of America, Ms. Rodriguez is responsible for overseeing and implementing communications, marketing, public outreach, and community relations programs for its professional clients. She led several planning projects and community outreach efforts for clients such as the FDOT, Martin County, City of Dania Beach, City of Miami Beach, and the City of Weston.

Jones Payne Group

Diane Carter – COO

Serves as Chief Operating Officer (COO) at Jones Payne where she formulates and implements operational strategies to ensure that the firm operates successfully and efficiently with regard to its physical and personnel resources. Diane has more than 20 years of specialized expertise in airport noise, environmental issues, mitigation planning, and program implementation. She supervises the development and implementation of large-scale noise mitigation programs and leads planning and community outreach efforts, while providing guidance and coordination to ensure program success. Diane develops and maintains strong client and community relationships. As a former airport noise officer for both commercial and general aviation airports, she possesses firsthand knowledge and experience working with communities across the country directly impacted by aircraft noise.

Diane served as Program Director for the Fort Lauderdale - Hollywood International Airport's Voluntary Residential Sound Insulation Program and assisted Broward County Aviation Department with the development and implementation of their noise mitigation program.

Joanna Norris – Project Manager

For the past 20 years, Joanna has been managing airport-sponsored residential sound insulation programs – including Fort Lauderdale, Lehigh Valley International Airport, and Manchester/Boston Regional Airport. During this time she managed the sound insulation of over 2,000 residential housing units. Joanna has in depth knowledge of all aspects of residential sound insulation, including the development of Architecture/Engineering

bid documents, public procurement, and construction administration and oversight. Joanne served as Project Manager for the Fort Lauderdale - Hollywood International Airport's Voluntary Residential Sound Insulation Program

Michael Payne – Project Architect

Co-founded Jones Payne and served as its President and Managing Principal for more than 10 years. Under his leadership, Jones Payne distinguished itself as national contributor to sound insulation programs for airport, transit and rail modernization endeavors. Mike is facilitating the transfer of leadership and institutional knowledge in the firm's preparation of his retirement in December 2020. With over 34 years of specialized experience in noise mitigation, he has managed 21 sound insulation programs nationwide. Mike routinely consults with clients on policy and regulatory issues affecting noise mitigation programs across the country. He also co-authored the Transportation Research Board's, Airport Cooperative Research Program (ACRP), Report 89, "Guidelines for Airport Sound Insulation Programs" that was sponsored by the Federal Aviation Administration.

Michael has served as Project Architect on 20+ residential sound insulation programs, nationwide. He is a licensed architect in the State of Florida. He served as the principal in charge and project architect for the Fort Lauderdale - Hollywood International Airport's Voluntary Residential Sound Insulation Program.

Keith & Associates, Inc.

Mr. Jonathan Weymouth has 28 years of experience in the planning, design, permitting and construction of heavy transportation, utility as well as all types of civil and environmental engineering projects. His work involves the supervision of engineering and technical personnel engaged in the design and construction of public and private sector improvements. Past projects include major transportation infrastructure projects such as airports, bridges, highways and roadways. This is in addition to civil land development, recreational facilities and environmental mitigation projects. The design/permitting/construction experience that Mr. Weymouth brings to the team regarding key elements related to the Expansion of Runway 9L-27R Program at FLL will be highly valuable to BCAD. These elements include earthwork and embankments, stormwater management, concrete and asphalt pavements along with communication, potable water distribution and sanitary sewer collection systems. Additionally, he has extensive knowledge and effective experience coordinating with FEC, as well as with permitting and federal agencies such as FDOT and FAA. He is very familiar and fully qualified to implement and control the guidelines and requirements established by these agencies.

Gartek Engineering Corporation

Mel F. Garcia, P.E., LEED AP – Vice President / Principal, Electrical Engineer

Mr. Mel Garcia has more than 40 years of experience in electrical design, including power and lighting. His experience also encompasses design of electronic systems including telephone, central clock, P.A., security and fire alarm systems. Mel has also been involved in code compliance issues and peer review to ensure quality control. Mr. Garcia participates in electrical construction administration and inspection services on a regular basis and is the Electrical Engineer of Record.

Robert L. Betancourt, PE, LEED AP – President / Principal, Mechanical Engineer

Robert is President at Gartek with more than 30 years of design experience in Heating, Ventilation, Air Conditioning, Smoke Control, Plumbing and Fire Protection Systems. His extensive experience includes design of central chilled water plants, pre-conditioned air systems with thermal storage for parked aircraft, Indoor Air Quality design including odor and air contaminants control through ventilation, dilution, neutralization of building positive and negative charges and improved filtration systems, packaged air cooled and water cooled systems, split direct expansion and unitary systems; high velocity, high pressure duct systems; steam heating; energy conservation studies, life cycle analysis, automatic wet pipe fire protection systems, pre-action systems and foam deluge systems.

AirQuest Environmental, Inc

Traci-Anne Boyle, MBA, CIH, CSP

Ms. Boyle has more than 27 years of diverse environmental consulting and industrial hygiene experience spanning more than thirty states in the US as well as the Caribbean. Her niche is in successfully directing sensitive, complex, multi-disciplinary, and large-scale environmental and industrial hygiene projects. Her experience includes simultaneous senior project management of multi-million dollar environmental projects in three states.

Ms. Boyle has provided environmental consulting to a variety of parties, including domestic and foreign government officials, attorneys, insurance companies, lending institutions, architects, engineers, the construction industry, property asset managers, multi-national corporations, and regulatory agencies.

Mark A. Alessandrone, PE, CHMM

Over the course of his 30-year career, Mr. Alessandrone has worked as a research chemist, a consulting chemist, a professional environmental engineer, and as an environmental laboratory owner and technical director. His professional experience is comprised of projects ranging from traditional environmental contamination assessment and remedial system design to emergency chemical release modeling to industrial waste characterization and management to assessments and litigation support related to mold contamination and other indoor air quality cases. He provides professional consulting services to industrial and commercial Clients, legal professionals, and environmental laboratories. Mr. Alessandrone is a registered professional engineer in Florida and Georgia, a Certified Hazardous Materials Manager and an active member of the Florida Society of Environmental Analysts.

Ted Smith, PG, CPG

Mr. Smith specializes in site characterizations and project reviews with an emphasis on Karst geology and sinkhole damage investigations, expert witness and litigation support, hydrogeological evaluations, contamination and environmental site assessments. Mr. Smith has over 30 years professional geological experience in environmental and engineering geology, as well as an extensive background in mining and mineral exploration. He has worked on a wide variety of environmental and geotechnical projects, including assessment and remediation of contaminated industrial facilities and geotechnical investigation of properties impacted by sinkhole and karst activity. Projects range from the geotechnical evaluations of hazardous elemental phosphorus tailings impoundments in Florida, Idaho, and Newfoundland to the closure of a phosphogypsum stack and chemical plant in central Florida, as well as extensive contamination assessments of various industrial facilities. Of particular note, Mr. Smith served as the technical consultant for the Veterans Expressway in Tampa, Florida from 1992 to 1996, when he managed the assessment and remediation of hazardous materials sites in the project right-of-way, including the assessment and closure of a former landfill.

1.2. Project Manager, Rhea Gundry

Rhea Gundry, as the Project Manager for the Environmental Planning and Acoustical Consulting Services contract, will use her more than 10 years of project management experience in airport projects, including the last three years as the BCAD acoustical consulting services project manager, to successfully manage the five scope groups through her “no surprises” proven approach by assigning appropriate resources to each as required. With HMMH President and CEO overseeing this project, Rhea will have her support when required to allocate the HMMH resources and direct the sub-consultants to meet BCAD needs and expectations throughout the term of the contract.

The proposed HMMH project management team, including Project Manager, Rhea Gundry; Assistant Project Manager, Katherine Preston; and Principal-in-Charge, Mary Ellen Eagan, will call upon the key staff from within HMMH and the well-rounded subconsultants we have (listed in section 1.1) as part of our team to provide oversight and review of environmental and acoustical deliverables and perform the following roles:

- Prepare and/or review project schedules and schedule updates.
- Hold and/or attend project meetings to keep the project on schedule and team informed of any project updates.
- Communicate with the BCAD’s Project Manager, Winston Cannicle, and other technical/task leads.
- Prepare and/or review project plan and glossary to ensure all authors and reviewers work from the same expectations and terminology.
- Ensure that deliverables and documents follow BCAD’s templates and data formats where appropriate.
- Ensure that QC procedures are followed for environmental analyses and documentation preparation.
- Ensure completeness and consistency with Part150 requirements.
- Serve as technical expert for methods, approach, assumptions, effects, and mitigation within subject area.

As Project Manager, Ms. Gundry will work with BCAD and the sub-consultants to ensure that final products are high quality, achieve BCAD’s objectives, and are delivered on time and on budget. This includes the creation of a detailed work plan and schedule for tasks; communicating regularly with sub-consultant team members, BCAD staff, the FAA and appropriate state and local regulatory officials as required; managing work products of sub-consultants and HMMH staff; and ensuring the final products’ comply with all regulatory and legal requirements. As with all HMMH contracts, the Project Manager will be the person BCAD can call upon for any particular need. Ms. Gundry will then identify the appropriate team member and work to address the issue.

Open communication between the client and team members is critical to ensure that there are no surprises. To that end, we will immediately alert the BCAD Project Manager if any significant deviations in the schedule occur that impact individual task or project milestones. We will work collaboratively with all team members and BCAD to develop a communications plan, including regularly scheduled conference calls with the BCAD Program Manager, and web-enabled meetings to discuss progress on existing tasks and projects, upcoming tasks and projects, and issues or challenges that need to be addressed. Ms. Gundry will travel to Broward County as needed to ensure BCAD objectives are met.

HMMH will use web-based collaborative tools such as Microsoft OneDrive, SharePoint or Box.com to manage documents, share project data, and facilitate document review. This will enable our team to work better together, faster and smarter. In addition, we utilize high-quality project management software to closely monitor project costs, and provide regular, detailed project reports to BCAD.

Ms. Gundry excels at bringing together teams that include subconsultants specializing in the full spectrum of NEPA and other aviation environmental subject matter. She has formed trusted relationships with subconsultants throughout the industry and has previously, successfully worked with six of the firms proposed on this project. We believe Ms. Gundry's knowledge of the complex environmental and noise issues at FLL and HWO, exceptional technical and communication capabilities, combined with the support of our familiar project team, make selection of the HMMH team and project management capabilities the correct choice for BCAD.

2. Project Approach

For on-call projects, such as the Environmental Planning and Acoustical Consulting Services for BCAD, HMMH will work closely with BCAD project manager(s) to define each task order. After the task order is well defined as conveyed by BCAD, HMMH will complete the following preparations prior to beginning each task:

1. In close coordination with BCAD, determine the task manager from the list of key staff provided in Section 1 based on qualifications, relevant experience, previous working relationships with key staff from sub-consultants and ability to complete the task on time.
2. Work with the task manager to develop a scope of work commensurate with the well-defined task order.
3. Based on the scope of work determine staff and other resources required to adequately and efficiently complete the task.
4. Develop a cost estimate and schedule with the project manager and other assigned key staff.
5. Provide the scope of work, key staff assignments including quality control, cost estimate and schedule to BCAD for review and approval.

Upon BCAD approval of the task order scope of work, key staff, budget and schedule, Rhea Gundry will work with the task manager to begin the task order and set up the project management protocols required for the specific task, which may include the following:

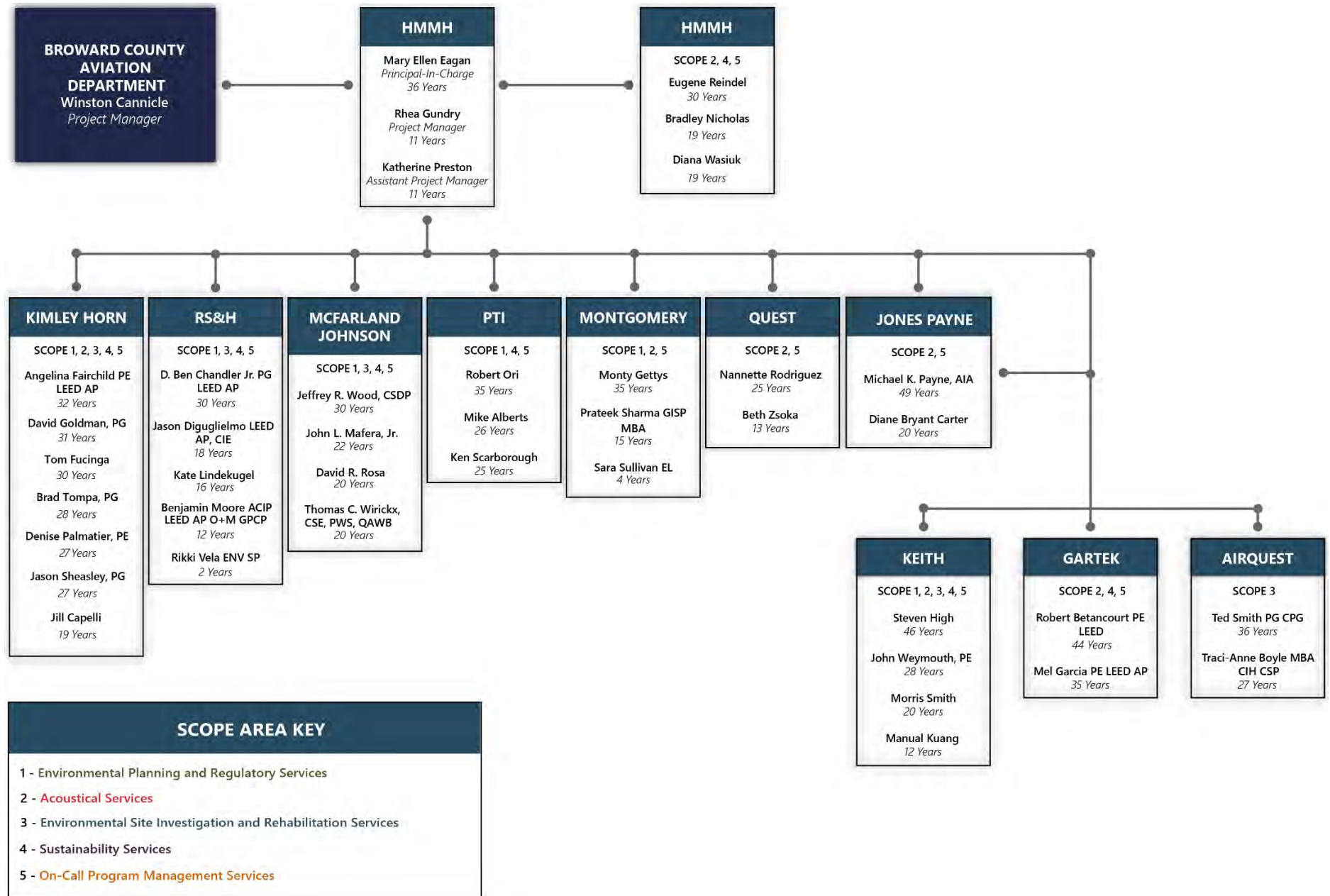
- Project kickoff meeting with Rhea Gundry, all key staff and BCAD
- Regular, likely monthly, progress reporting to Rhea Gundry and BCAD
- Development and maintenance of the milestone/deliverable schedule
- Develop and implement the quality control process with the assigned quality control specialist

The assigned task manager will report directly to HMMH project manager, Rhea Gundry, and BCAD project manager as the main point of contact with BCAD throughout the duration of the task. If a change in task manager or other key personnel is required during the completion of the task, such changes will be worked out with BCAD and HMMH in writing prior to initiating the change.

The HMMH team is assembled and organized with a focus on efficiency and professional accountability. Many of the team members have overlapping expertise, skills, and abilities. The HMMH team's organizational structure for managing the Environmental Planning and Acoustical Consulting Services for BCAD is shown in Figure 1.1.

The following five sections describe the services available from our team, along with a description of the areas of expertise they provide.

Figure 1.1 – Organization Chart



Scope Element 1 - Environmental Planning and Regulatory Compliance Services

	HMMH	Kimley Horn	RS&H	McFarland	PTI	Montgomery	Quest	Jones Payne	Keith	Gartek	AirQuest
Local, state, and federal permitting and agency coordination		✓	✓	✓					✓		
Site planning and permitting		✓	✓	✓					✓		
Feasibility studies, project development, and conceptual analyses	✓	✓	✓	✓	✓	✓			✓		
Wildlife hazard assessments, management plans, updates, training, and program management		✓		✓							
Listed species coordination analysis		✓		✓							
Wetland analysis, permitting, and mitigation		✓	✓	✓							
NEPA documentation and analysis, including CEs, EAs, and EISs	✓	✓	✓	✓		✓					
Wetland and aquatic maintenance and monitoring		✓	✓	✓							
Mitigation/Restoration project design, implementation, monitoring, and reporting		✓	✓	✓							
NPDES compliance		✓	✓	✓					✓		
Permit compliance, tracking, and submittals		✓	✓	✓					✓		

Our team has extensive experience providing environmental planning and compliance consulting services to airports around the country and particularly in Florida. While each airport has unique considerations, many of the challenges with environmental stewardship and regulatory compliance associated with airport operations are similar.

Airports large and small face challenges associated with environmental compliance and day-to-day operations. Our team recognizes this and seeks to incorporate environmental protections anticipating compliance obligations. From fuel containment and spill prevention to stormwater runoff management, airports need to be prepared to address these challenges should they occur. Multiple members of our team can assist with a variety of environmental compliance services including: regulatory strategy development, solid waste management, hazardous chemical management, spill prevention, control, and countermeasure (SPCC) assessment and planning, environmental assessments for property transactions, NPDES construction and industrial stormwater permitting and airport wildlife hazard management, and associated training. In addition, our team members are experienced in ensuring compliance with special purpose laws such as the Endangered Species Act. Although identified under a separate group of potential services, incorporating sustainability and resiliency practices into conventional airport environmental planning and compliance activities is a consideration, and we are prepared to assist BCAD in meeting these challenges and expectations whether self-desired or imposed by external stakeholders.

Scope Element 2 - Acoustical Services

	HMMH	Kimley Horn	RS&H	McFarland	PTI	Montgomery	Quest	Jones Payne	Keith	Gartek	AirQuest
<i>Planning and administrative services related to the implementation of measures included in BCAD's most recent Noise Compatibility Program and Part 150 Study</i>	✓	✓				✓		✓	✓	✓	
<i>Noise mitigation planning and administrative services</i>	✓	✓				✓		✓	✓	✓	
<i>Professional planning, acoustical, and consulting services in conjunction with administration and implementation of airport projects and programs</i>	✓	✓				✓		✓	✓	✓	
<i>Research, studies, data collection and reporting</i>	✓	✓				✓	✓	✓	✓	✓	
<i>Noise monitoring system services, including functionality evaluations, system maintenance and modification/implementation</i>	✓	✓				✓			✓		
<i>Update BCAD and stakeholders, attend board meetings, public meetings and public hearings</i>	✓	✓	✓				✓	✓	✓	✓	

HMMH is pleased to offer our services to BCAD highlighting our ability to provide aircraft noise support and stakeholder engagement. Throughout HMMH's 39-year history, we have developed a strong reputation for creatively addressing complex aircraft noise and environmental issues, and have developed strategic and innovative approaches to stakeholder engagement delivering such projects with our hallmark technical excellence and client satisfaction.

HMMH will manage this project within our Aviation Environmental Services Group, which includes acousticians, former air traffic controllers, current and experienced commercial pilots, aviation planners, and GIS specialists. We have organized this team to ensure responsive interaction with BCAD and to promote proactive quality control measures. Our management plan provides a customer-oriented approach that promotes efficient allocation of personnel and includes quality control procedures that focus on traceability and reproducibility of results, integration of schedule, budget, and quality to provide best value.

HMMH has extensive and recent experience preparing Part 150 Noise Exposure Maps (NEMs) and development and implementation of Noise Compatibility Programs (NCPs). As a leader in this field, HMMH has specialized noise modeling tools that are both more accurate and efficient than standard modeling protocols. HMMH also has the largest group of airport noise modelers in the country whose skills will ensure that BCAD receive exceptional analyses within a reasonable timeframe. HMMH has worked on more than 90 NEMs and NCPs has completed 14 in the last five years.

Scope Element 3 - Environmental Site Investigation and Rehabilitation Services

	HMMH	Kirley Horn	RS&H	McFarland	PTI	Montgomery	Quest	Jones Payne	Keith	Gartek	AirQuest
<i>Preparation of EA reports, interim source removal plans, remedial action plans, design and bidding documents, risk assessments, and groundwater monitoring plans and reports related to the assessment and remediation of sites contaminated with petroleum and/or nonpetroleum products in accordance with FDEP RBCA provisions</i>		✓	✓								✓
<i>Preparation of EA reports, interim source removal plans, remedial action plans, design and bidding documents, risk assessments, and groundwater monitoring plans and reports related to the assessment and remediation of sites contaminated with petroleum and/or nonpetroleum products</i>		✓	✓								✓
<i>Petroleum UST and AST services</i>		✓	✓								✓
<i>SWPPP and NPDES permitting and compliance for industrial and construction activities</i>		✓	✓	✓					✓		✓
<i>SPCCP updates and implementation</i>		✓	✓	✓							✓
<i>Hazardous and non-hazardous materials management</i>		✓	✓	✓							✓
<i>Environmental site assessments and audits</i>		✓	✓	✓							✓
<i>Asbestos and lead based paint surveys, testing, and abatement oversight services</i>											✓
<i>Air Quality Sampling</i>		✓									✓
<i>Analytical Laboratory Services</i>		✓									✓

We recognize that being a good steward of the environment is important to BCAD. As such, we have assembled a team of professionals that excel in environmental site investigation and rehabilitative services. Members of our team are leading experts in their field, and recognize that assessment and corrective action of contaminated soil, groundwater, and surface water require a thorough understanding of the complex systems involved, including the chemical and physical properties of the contaminants released, the nature of soil and water systems, and local, state, and federal regulations applicable to Broward County.

Properly managing hazardous materials and mitigating their potential effects on human health and the environment requires a unique plan of action for each project. When approaching a site that requires careful assessment and remedial strategies it is critical to consider all aspects of the project, including your budget, schedule, scope, potential construction activities, the protection of human health, long-term use of the property, etc. Based on the hazards of concern, all appropriate regulatory requirements must be met. In addition, our team understands the challenges and opportunities presented by an interested and engaged public with regards to our client’s environmental remediation and rehabilitation projects, and are adept at navigating projects that garner significant community interest.

Our team includes professional geologists, environmental scientists, hydrogeologists, and biologists who are knowledgeable in regulations governing hazardous wastes and certified by OSHA to perform investigations on sites with hazardous chemicals. Our seasoned team has extensive experience in the design and implementation of a variety of technologies for sites where risk considerations require remedial action, allowing us to utilize a wide range of conventional and innovative approaches in our assessment and remediation efforts.

Additionally, our team has extensive experience in all facets of storm water management, allowing us to help our clients meet regulatory requirements, respond to public concern, and ensure optimum water quality while

focusing on the impacts to surrounding ecosystems. Our specialized stormwater management services include analyses of design alternatives, SWPP and NPDES permitting and compliance document preparation, feasibility and pond siting studies, and cost-to-benefit analyses.

Our team members have developed and continue to maintain professional engineer-certified Spill Prevention, Control and Countermeasures (SPCC) plans for numerous Florida Gas Transmission (FGT) facilities in the Southeast.

Scope Element 4 - Sustainability Services

	HMMH	Kimley Horn	RS&H	McFarland	PTI	Montgomery	Quest	Jones Payne	Keith	Gartek	AirQuest
<i>Baseline Assessments</i>	✓	✓	✓	✓							
<i>Establishing and updating sustainability vision, goals, and objectives</i>	✓	✓	✓	✓						✓	
<i>Evaluate and identify initiatives</i>	✓	✓	✓	✓							
<i>Develop performance targets and metrics</i>	✓	✓	✓	✓							
<i>Develop implementation and monitoring plan</i>	✓	✓	✓	✓							
<i>Infrastructure resiliency</i>		✓	✓	✓							
<i>Staff training or analysis of various “green building” design and construction standards or other technical subject matter</i>		✓	✓	✓							
<i>Innovative technology research and recommendations</i>	✓	✓	✓	✓	✓				✓		
<i>Energy conservation analysis</i>		✓	✓	✓							
<i>Renewable energy development, credits, and analysis of impacts to airport operation</i>	✓	✓	✓	✓							
<i>Resource use benchmarking inventories and/or reduction planning and implementation</i>	✓	✓	✓								
<i>Technical reviews and reporting</i>	✓	✓	✓	✓						✓	
<i>Sustainability program implementation</i>	✓	✓	✓	✓							
<i>Airport Carbon Accreditation data and application development</i>	✓		✓								
<i>FAA environmental grant applications</i>	✓	✓	✓	✓	✓						

Airports across the world have embraced sustainability as an approach to ensure the economic vitality, operational efficiency, natural resource conservation and social (or community) engagement, which reflects the airport industry’s EONS approach to sustainability. There is also a growing recognition within the industry of the need to focus on enhancing the resiliency of airport infrastructure to threats such as rising sea levels, extreme weather and precipitation, power outages and other system shocks. Airports are integrating sustainability and resiliency programs and initiatives at their facilities and into their operations to achieve benefits beyond environmental protection and regulatory compliance. Within the Airport context, the integration of sustainability can result in the following benefits:

- Greater utilization of assets
- Reduced environmental impacts and fewer compliance issues
- Reduced cost of asset development
- Improved bond ratings
- Improved satisfaction from employees, tenants, passengers and the community
- Reduced environmental, health, and safety risks
- Enhanced resiliency of infrastructure and reduced maintenance of infrastructure
- Public recognition and alignment with city/county/state goals

By integrating sustainability with airport planning processes and as a core component of development projects, airports can ensure that their proposed development looks beyond traditional environmental impacts to incorporate sustainable principles and practices to all aspects of a proposed project. Sustainable airport planning must go beyond pure environmental stewardship; decisions also need to make economic sense and consider the broader social context. Although incorporating sustainability into airport processes and projects at any point results in benefits, the earlier the integration occurs the greater the benefits. Our team will apply our years of experience helping clients develop, implement, update and evaluate sustainability programs to projects at BCAD to achieve maximum results.

Scope Element 5 - On-Call Program Management Services

	HMMH	Kimley Horn	RS&H	McFarland	PTI	Montgomery	Quest	Jones Payne	Keith	Gartek	AirQuest
<i>Development and management, adherence to policies and procedures, and execution of plans necessary to deliver projects from planning through design and construction</i>		✓	✓	✓	✓		✓		✓	✓	
<i>Identify, manage, and track environmental permitting required for BCAD CIP through evaluation of landside, aeronautical, environmental, and economic data to ensure NEPA compliance and regulatory requirements</i>		✓	✓	✓					✓		
<i>Overall environmental permitting strategy, development and review of environmental permit applications</i>	✓	✓	✓	✓					✓		
<i>Provide management, tracking, & assessment of sustainability guidelines</i>	✓	✓	✓	✓					✓		
<i>Manage and track adherence to LEED requirements</i>		✓	✓	✓					✓	✓	
<i>Manage, review, and coordinate work undertaken by consultants, designers, contractors, and BCAD staff</i>	✓	✓	✓	✓	✓		✓		✓		
<i>Collaborate and engage stakeholders to minimize operational disruptions through BCAD's CIP and ensure the delivered product meets the ultimate CIP purpose and needs</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓		
<i>Provide status updates, briefings, and presentations to BCAD and any other internal or external stakeholder</i>	✓	✓	✓	✓	✓	✓	✓		✓	✓	
<i>Keep abreast of all BCAD CIP developments and assisting on necessary decisions affecting project scope, schedule, budget, safety, and quality</i>	✓	✓	✓	✓	✓	✓	✓		✓		
<i>Performance management metrics development support</i>	✓	✓		✓	✓		✓		✓		
<i>Manage construction implementation phase of projects for conformity with approved or permitted conditions</i>		✓		✓	✓				✓		
<i>Collect and manage digital data for BCAD GIS systems and information databases integration</i>	✓	✓		✓	✓	✓		✓	✓		

HMMH has proven experience in leading and participating in multi-disciplinary teams. Our staff have significant experience providing program management support for a range of both Federal and local programs, providing organizational development, aviation/airport operations, aviation policy, investment analysis, technology assessment, knowledge management support, administrative support, and industry outreach capabilities to our clients. As a recent example, HMMH is the prime contractor for the re-evaluation of Chicago O'Hare's EIS following O'Hare's extensive airport modernization effort. This effort, a five-year, multi-million-dollar program, has HMMH managing a multi-disciplinary team of seven subcontractors and providing analyses, models, reviews, guidance, outreach, and documentation of environmental and noise impacts to the O'Hare airport and surrounding areas. We also were part of a team supporting the Federal Joint Planning and Development Office through a five-year technical, management, and support services contract, where we provided assessments of NextGen technologies and guidance on how to integrate these technologies into the current airspace concept.

In addition to our own experience, our team includes firms and individuals with decades of project management experience as shown in the table above. Depending on the specific needs of the BCAD, our team can provide uniquely qualified staff to manage individual projects. In all cases our approach values professionalism, timely communication, collaboration, organization, effective use of technology and leadership. Our prior experience working with BCAD and deep understanding of the development needs of BCAD's facilities means we can take a holistic approach to the management and implementation of planning, design, and construction projects, as well as environmental compliance and permitting, and sustainability plan implementation.

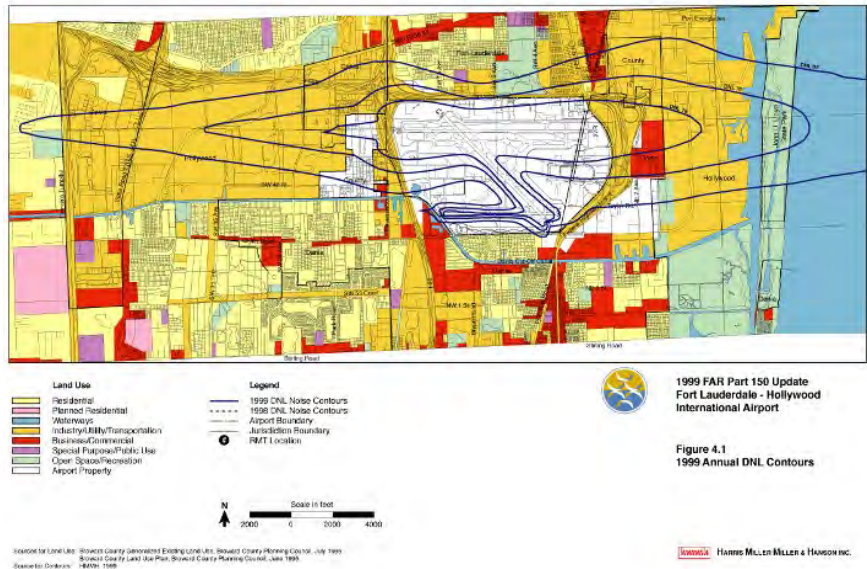
3. Past Performance

Relevant project experience for the HMMH team are detailed below. In addition, we have included four completed Vendor Reference Verification Forms at the end of this Section.

Ft. Lauderdale–Hollywood International Airport On-Call Aviation Noise Consulting

HMMH has provided comprehensive airport noise-related consulting services to the Broward County Aviation Department (BCAD), primarily related to Fort Lauderdale – Hollywood International Airport (FLL) in an uninterrupted fashion since 1990. HMMH’s assistance to the BCAD has covered the full spectrum of noise-related projects that an airport may incorporate in a noise compatibility program, as well as into airport planning, design and development efforts. Major HMMH services to the BCAD have included the following:

- Two Part 150 studies
- Noise elements of an Airport Master Plan Study
- Noise elements of EIS for a runway extension
- Initial and ongoing implementation of Airport Noise Abatement Committee
- Design, specification, and implementation of a comprehensive noise and operations monitoring system
- Design and establishment of noise office staffing and functions
- Noise office staff training
- Annual noise contours
- Ground run-up control and noise barrier effectiveness analyses
- Sound insulation program design, implementation, and testing
- Implementation of an aviation easement and sales assistance program
- Litigation support



3.1. HMMH Inc. Experience

HMMH is an environmental consulting firm providing our clients with innovative solutions for a better future. We were founded in 1981 to provide the highest quality noise consulting services to airports. Today, in addition to our noise practice, HMMH addresses emerging and technologically challenging projects including air quality analyses, airport and airspace planning, airport environmental planning and climate and energy solutions. HMMH is nationally recognized for tackling complex problems affecting our environment. Below are reference projects, as requested, that provide our experience on projects of similar nature, scope and duration over the past five years. We encourage you to contact any of our clients whether provided below or not as we are certain you will learn that we have remained faithful to our founders’ legacy of technical excellence and client satisfaction.

The following references are provided in order of the five scope groups in the RFP.

Environmental Planning, and Regulatory Compliance Services

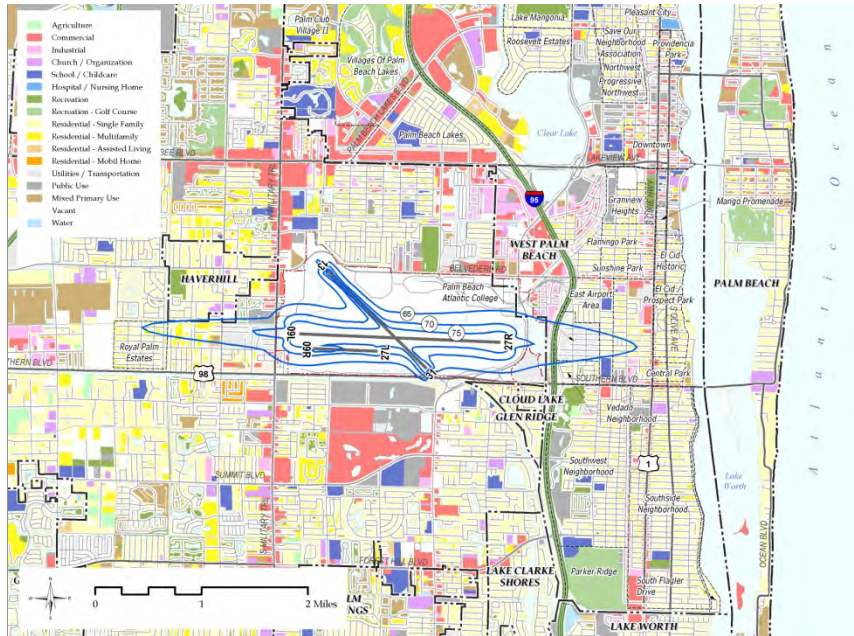
In 2015, HMMH led a multi-disciplinary project team that prepared, on behalf of the Federal Aviation Administration (FAA), a formal, Written Re-Evaluation (Re-Evaluation) of a previously adopted Environmental Impact Statement (EIS) in compliance with the National Environmental Policy Act (NEPA). The original EIS, for which a Record of Decision (ROD) was originally issued in 2005, examined impacts associated with the O’Hare Modernization Program (OMP), a multi-billion dollar infrastructure project involving land acquisition and substantial changes to the airfield layout. Changes to the sequencing of runway construction projects in the intervening decade necessitated a separate Re-Evaluation in 2015.

Building upon this effort in 2017, FAA initiated and retained HMMH for a second, separate Re-Evaluation to evaluate interim changes to the Fly Quiet Runway Rotation Plan previously assessed in the 2005 EIS. Specifically, the interim changes covered a timeframe spanning the period from shortly after the closure of Runway 15/33 (2018) through the anticipated commissioning of new Runway 9C/27C (2021). The object of the Interim Fly Quiet Runway Rotation Plan is to mitigate aircraft noise effects, providing periodic respite to residents living near the airport by altering runways assigned for departures and arrivals during the nighttime period.

Acoustical Services

HMMH has provided comprehensive airport noise-related consulting services to the **Palm Beach County Department of Airports (DOA)** since 1991, including:

- Continuing assistance to the Citizens Committee on Aircraft Noise (ongoing)
- Noise monitor relocation evaluation (2017-2018)
- Palm Beach International Airport Master Plan (2014 – 2017)
- Preparation of annual noise contours (1993 – 2012)
- Part 150 Updates (1992/3 and 2002)
- Noise elements of a Florida Development of Regional Impact Study and Environmental Impact Study (EIS) for a runway extension
- Design, specification, and installation of a comprehensive monitoring system
- Residential sound insulation program design and management
- Noise office staff training
- Expert support for litigation at Palm Beach International and Lantana Airports
- Nationally recognized noise abatement departure profile (NADP) analyses



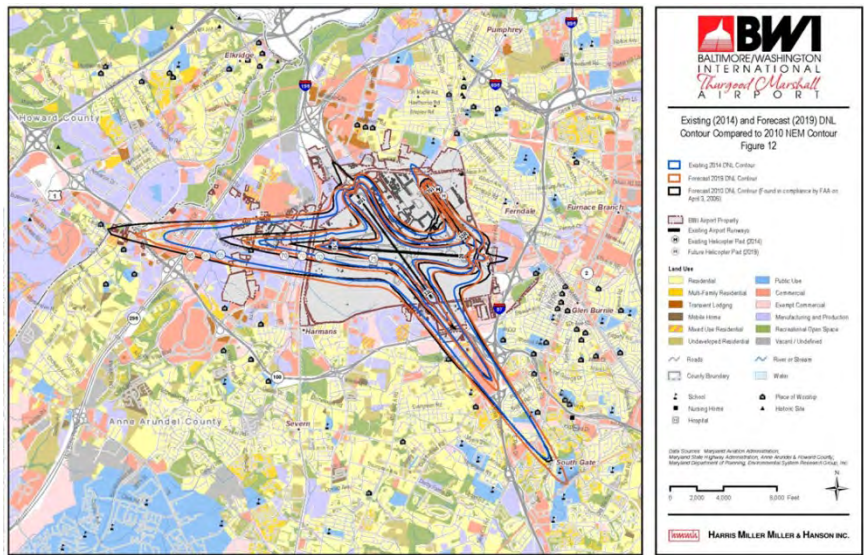
HMMH has provided comprehensive airport noise-related consulting services to the **Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA)** since 1985, including the airport’s first Noise Exposure Map (NEM) and Noise Compatibility Program (NCP) in 1989, and updates to the NEM in 1995 and 2005. HMMH later prepared an NCP Update, which was approved by FAA in March 2008. In 2013, MDOT MAA

contracted with HMMH to prepare the third BWI Marshall NEM update, which was approved in July 2016 with the NCP approved the following January. In 2019, MDOT MAA contracted with HMMH to prepare the fourth BWI NEM update and NCP update.

HMMH has also been aiding the DC Metroplex\BWI Community Roundtable (formed in 2017) to address community concerns related to the implementation of NextGen flight procedures in the Washington DC 'Metroplex', including arrivals and departures to Baltimore/Washington Thurgood Marshall International Airport (BWI Marshall). HMMH is supporting the Roundtable by providing technical support and is also participating as technical experts on MDOT MAA's behalf to the FAA's Capitol Area Working Group, tasked with identifying possible modifications to the DC Metroplex procedures that will address community concerns at BWI, Ronald Reagan Washington National Airport (DCA), and Dulles International Airport (IAD).

HMMH has also provided the following comprehensive airport noise-related consulting services to the MDOT MAA:

- Noise elements of planning studies for both BWI Marshall and Martin State Airport
- Noise elements of Environmental Impact Statements (EIS) and Environmental Assessments (EA)
- Noise analysis for a new airline proposing to start service
- Design, specification, and installation of a comprehensive noise monitoring system
- Noise office staff training
- Quarterly noise report preparation and assistance to staff
- Reuse plans for land acquired with FAA supported grants
- Review of building proposals and zoning cases
- Provided assistance to the Neighbors Committee on aircraft noise topics
- Development of a Noise Rule for limiting use of general aviation runway
- Detailed analysis of departure procedures
- Assessment of low frequency effects on houses and residents
- Litigation support
- Provides roundtable technical assistance
- Community short term noise monitoring/reporting
- Community complaint analysis and support
- Assistance with installation of Noise and Operations Management System (NOMS)



Environmental Site Investigation and Rehabilitation Services

HMMH has no experience with these compliance type services related to site investigations or rehabilitations. However, we have five team members that have the experience listed in the RFP with AirQuest having experience in all subject matters listed under this scope group.

AirQuest prepared a Spill Prevention, Control, and Countermeasure (SPCC) plan for the Johnson & Wales University facility. This SPCC plan which replaced the original SPCC prepared by AirQuest in 2008, describes the facility, provides the location, contents and oil amounts of all applicable oil storage containers with a capacity of at least 55 gallons. The plan provides discharge prevention measures and containment as well as countermeasures for discharge recovery, response and cleanup. Additionally, for prevention measures, the SPCC plan provides guidance for inspection and testing of each oil storage structure. To assist the Johnson & Wales University in the compliance of the SPCC plan, AirQuest instructed personnel in the operation and maintenance of equipment to prevent discharges of oil and the applicable pollution control laws, rules and regulations. The SPCC plan was prepared and implemented as required by the U.S. Environmental Protection Agency (U.S. EPA) regulation contained in Title 40, Code of Federal Regulations, Part 112, (40 CFR 112) and certified by a registered professional engineer (PE).

Sustainability Services

HMMH authored the Airport Cooperative Research Program (ACRP) Report 207, “Optimizing the Use of Electric Pre-Conditioned Air and Ground Power Systems at Airports”, published in November 2019. The project required significant stakeholder engagement with airports, service providers, equipment manufacturers and airlines to identify and understand the factors that contribute to the use or nonuse of electric pre-conditioned air (PCA) and 400 Hz ground power systems. Air quality and greenhouse gases are a significant concern to airports in the U.S., and globally. Airport operations result in the emission of various air pollutants from numerous sources, including aircraft, airport-, airline- and tenant-owned vehicle fleets, passenger and employee vehicles, rental cars, shuttle buses, and other ground vehicles. Airports have invested in the installation of gate electrification equipment and systems to power, heat and cool aircraft parked at gates so they do not need to run the auxiliary power units (APUs). This results in reduced emissions, cost savings on fuel and reduced frequency of maintenance on APUs. However these systems are not always optimally utilized.

The objective of this research was to investigate the many factors, barriers and challenges that can affect utilization of gate electrification systems, understand their individual and collective impact on utilization, and identify the best management practices to overcome or neutralize these challenges. The research project resulted in a final guidebook including categorized challenges leading to non-use of the systems; case studies that demonstrate examples and benefits of effective utilization; and industry best practices for airports and airlines and other practical applications for the guidance. HMMH also developed a high-level screening tool for users to identify their challenges and possible solutions, and a simple utilization tracking methodology.

On-Call Program Management Services

HMMH has proven experience in providing program management support for a range of both Federal and local programs, providing organizational development, aviation/airport operations, aviation policy, investment analysis, technology assessment, knowledge management support, administrative support, and industry outreach capabilities to our clients. As a recent example, HMMH is the prime contractor for the re-evaluation of Chicago O’Hare’s EIS following O’Hare’s extensive airport modernization effort. This effort, a five-year, multi-million-dollar program, has HMMH managing a multi-disciplinary team of seven subcontractors and providing analyses, models, reviews, guidance, outreach, and documentation of environmental and noise impacts to the O’Hare airport and surrounding areas. We also were part of a team supporting the Federal Joint Planning and Development Office through a five-year technical, management, and support services contract, where we provided assessments of NextGen technologies and guidance on how to integrate these technologies into the current airspace concept.

3.2. Kimley-Horn and Associates, Inc. Experience

Broward County Aviation Department, Airport Planning Consultant Services

Kimley-Horn serves as the prime consultant providing on-call aviation planning services for Fort Lauderdale-Hollywood International Airport and its reliever, North Perry Airport both of which are owned and operated by the Broward County Aviation Department. FLL is a rapidly growing large hub commercial service airport served by all major carriers and with significant activity by JetBlue, Southwest Airlines, and Spirit Airlines along with an expanding base of international flights. Passenger activity at FLL is forecast to grow by roughly 4.5 million passengers between 2015 and 2020 placing significant pressure on landside facilities at this airport. Planning services provided to date as a part of the on-call planning effort have included both airside and landside facility planning efforts that feed directly into a master planning effort.

Belle Glade State Municipal Airport, General Engineering Services.

Kimley-Horn is currently serving as general engineering aviation consultant and extension of staff for the Belle Glade State Municipal Airport (X10). Several services orders have assigned and completed by Kimley-Horn including the following three tasks:

- Runway 9-27 Rehabilitation.** The pavement on Runway 9-27, the airport's only runway, was in disrepair and was creating a potentially unsafe condition for operations. Despite the name of the project, the condition of the pavement was so poor that runway reconstruction was required due to loading, climate, and age distresses. In addition to the runway's pavement deficiencies, its geometry and pavement markings did not meet current FAA standards. The runway was also situated so an adjacent property encroached onto the runway's "object free area." The approach to Runway 9 was also obstructed by powerlines and tall trees.

Kimley-Horn provided design services to correct all these deficiencies. Full-depth pavement reconstruction was performed to address the pavement distresses. The original runway was demolished and realigned 35 feet to the south and 100 feet to the east, allowing the airport to correct its object-free area and obstruction issues. The runway was also widened to 60 feet to address FAA requirements and shortened slightly, on the west end, to mitigate other approach obstruction issues. The final dimensions for the runway are 3,450 feet by 60 feet, meeting all FAA General Aviation Facility requirements. Kimley-Horn also provided construction phase services and a full-time resident project representative to observe work. Construction Cost: \$1,980,000. Design was completed in 2016 and construction was completed in 2017.
- Solar Power Lighting Project.** Prior to this project, Belle Glade State Municipal Airport was not lighted for nighttime operations. Per the airport's capital improvement plan, \$800,000 was earmarked for a future project to address this matter. City and State officials, however, anticipated that procuring the funds to install lighting would be difficult. Kimley-Horn, however, found an innovative solution for the lighting issue. For less money than would be required to design a conventional incandescent airfield lighting system, a solar LED lighting system could be designed, purchased, and installed. This project was the first time a solar-powered aviation lighting system has been installed at a publicly-owned airport in Florida. The Florida Department of Transportation is currently performing a study to determine if this solar lighting system is viable for other rural, unlit general aviation airports. Kimley-Horn's responsibilities consisted of designing the system and observing its installation. Construction Cost: \$126,000. Design was completed in 2016 and construction was completed in 2017.
- Environmental Contamination Assessment and Mediation Planning.** The western section of the airfield is heavily contaminated with several organochlorine pesticides (OCPs), including toxaphene and dichloro-diphenyl-trichloroethane (DDT). Kimley-Horn helped secure funding from the Florida Department of Transportation (FDOT) to allow for completion of additional site assessment, soil pilot study, feasibility study, and remediation design at the facility. Kimley-Horn is currently in the process of completing a feasibility study evaluating several options for remediation of soil. The feasibility study includes evaluation of future use plans for the facility and integration of site future development with cleanup. Work is ongoing for this task.

City of Fort Lauderdale Executive Airport (FXE) General Engineering Consultant

Kimley-Horn served as a general consultant to the City of Fort Lauderdale for FXE for more than 12 years. In that role, we have completed numerous services, including the airfield-wide rehabilitation of airside signage, lighting, and electrical services; the rehabilitation of Runway 8-26 and relocation of Taxiway Hotel; the rehabilitation of Runway 13-31; a new Airport Rescue and Fire Fighting (ARFF) station; a fiber-optic communications system connecting the airport gate system to a central computer; security improvements; relocation of Taxiway Alpha; evaluation of the existing customs facility and site selection for a new facility, design of an Aviation Equipment and Services Facility; rehabilitation of Taxiway Bravo; an Airport Master Plan and Strategic Business Plan; a pavement management study; and numerous other projects. We have truly functioned as an extension of FXE's staff, filling the gaps and helping the City as it operates one of the busiest general aviation airports in the country.

3.3. RS&H Experience

Fort Lauderdale-Hollywood International Airport

Stormwater Permitting – RS&H was retained on a team of consultants selected by Broward County to provide design, bidding and construction phase services for the Airport Expansion Program (AEP) for the design of a new south Runway 10R-28L and associated taxiways, at Fort Lauderdale-Hollywood International Airport.

The primary element of the AEP was the expansion of Runway 9R-27L, in which the new runway was designed for an Airplane Design Group (ADG) V making it 8,000 feet long by 150 feet wide. It is located along the centerline of (and replaced) the previous general aviation Runway 9R-27L. The new runway, along with a full-length parallel taxiway to the north, extends over the existing airport perimeter road, Florida East Coast Railroad and US Highway 1 located east of the Airport. This required the new Runway 10R-28L and its inner parallel taxiway to be elevated to the east. This necessitated two bridge/tunnel structures. The proposed runway alignment, longitudinal and transverse runway grades, and the taxiway extensions were configured in accordance with the FAA Advisory Circular 150/5300-13 Airport Design to accommodate a Boeing 777-300.

Environmental Permitting, Modeling, and Agency Coordination Services – RS&H was retained on a team of consultants selected by Broward County to provide design, bidding, and construction phase services for the Airport Expansion Program (AEP) for the design of the new south Runway 10R-28L and associated taxiways at Fort Lauderdale-Hollywood International Airport.

The primary element of the AEP was the expansion of Runway 10R-28L, in which the new runway was designed for an Airplane Design Group V making it 8,000 feet long by 150 feet wide. It replaced the previous general aviation Runway.

10R-28L along the centerline. The new runway, along with a full-length parallel taxiway to the north, extends over the existing airport perimeter road, Florida East Coast Railroad and US Highway 1 located east of the Airport. This required the new Runway 10R-28L and its inner parallel taxiway to be elevated to the east.

Team member responsibilities included completing drainage modeling design and environmental permitting with the South Florida Water Management District and Broward County Environmental Protection and Growth Management. Additional responsibilities included existing drainage and proposed drainage analysis using ICPR and AutoCAD Civil 3D, preparation of drainage report and pre-development and post-development drainage maps, completing permit applications and responding to RAIs.

Site Investigation Services – The Fort Lauderdale-Hollywood International Airport (FLL) Exit Roadway and Valet Improvements Project (Project) is the design of two proposed exit lanes from the Cypress Garage/Rental Car Center (RCC) Helix, which run along the southern edge of the Hibiscus Garage and ties into the exit roadway system closer towards the existing toll plaza exit. The Project's objectives are to improve traffic flow and circulation, increase weave distances, increase merge lengths, reduce conflict points, and provide additional valet parking.

The Project is part of, and adjacent to the South Terminal Area (STA). The STA, identified in the Construction Management Plan (CMP) for Fort Lauderdale-Hollywood International Airport, is on the Florida Department of Environmental Protection (FDEP) list of contaminated facilities/areas for petroleum contamination.

RS&H Field Personnel coordinated and performed activities that included the advancement of nine DPT soil borings, installation of nine temporary monitoring wells, and the collection and laboratory analysis of nine soil samples and 11 groundwater samples. The objective of the site investigation was to identify locations within the Project area where contaminated soils and/or groundwater are likely still present and may be encountered during construction.

Based on the findings of the site investigation, RS&H recommended certain design considerations to properly manage petroleum contamination encountered during construction.

Indianapolis International Airport Sustainability and Resiliency

Initial Sustainability Management Planning – Indianapolis Airport Authority (IAA) has demonstrated a commitment to sustainability beginning several years ago through the development and implementation of many sustainability initiatives and programs at Indianapolis International Airport, including:

- Developing a new midfield terminal achieving LEED certified status
- Developing the largest airport photovoltaic system in the U.S. generating several megawatts of power equaling approximately 25 percent of airport usage
- Incorporating electric buses into its existing fleet
- Improving stormwater management facilities and improving water quality
- Achieving Airport Carbon Accreditation (ACA) for reducing greenhouse gas emissions
- Seeking Envision certification for infrastructure projects demonstrating ongoing environmental enhancement
- Conversion of airfield lighting systems to LEDs
- Assessments of energy consumption and identification of reduction measures

RS&H was hired to conduct additional planning to help further and maintain the sustainability initiatives well into the future. RS&H is conducting a baseline analysis to document existing sustainability successes to help promote sustainability to both internal and external stakeholders including a terminal energy audit. RS&H is working on the initial activities that will help in the development of a comprehensive sustainability management program in the future, combining the results of activities conducted independently into one cohesive programmatic framework consistent with FAA's Sustainability Management Plan (SMP) guidance, but focusing on integration of sustainability into the organization. This initial step in framework development was based on a combination of data provided by the IAA, RS&H and other consultants to the Authority. Our scope included the following elements to help develop the IAA's sustainability program aimed at establishing a consistent policy and framework for sustainability moving forward.

- Compiled Existing Sustainability Data
- Conducted an Initial Sustainability Baseline Assessment
- Conducted an ASHREA Level 2 Energy Audit of Terminal Facilities
- Established Preliminary Sustainability Mission and Goals
- Evaluated Existing Sustainability Initiatives and Identifying Candidate Future Initiatives
- Developed Preliminary Sustainability Performance Targets
- Developed an Initial Implementation Program Framework

Airport Terminal Building ASHRAE Level II Energy Audit - RS&H conducted an ASHRAE Level II Energy Audit of the Indianapolis International Airport Terminal Building. RS&H established an energy use and cost baseline for electricity, heating hot water and chilled water, integrating utility operations at the terminal building with estimates of the contribution of the airfield's Central Energy Plant. Results were benchmarked against U.S. airports using an Airport Terminal Building benchmarking tool developed by the Transportation Research Board of the National Academies. RS&H mechanical and electrical engineers comprehensively assessed the one million square foot building, evaluating the building envelope, HVAC, water/plumbing, lighting and process equipment systems for energy conservation opportunities. Thirteen energy conservation opportunities were identified and conceptually designed. They are estimated to generate over \$300,000 in annual cost avoidance with a simple payback of less than three years. In addition to recommending energy savings projects, RS&H provided recommendations for utilizing financial incentives and grants from Indianapolis Power and Light, Citizens Gas and two FAA programs for funding facility improvements.

Tampa International Airport

Resiliency Services – The Hillsborough County Aviation Authority (Authority) has developed a successful sustainability program that promotes economic development, natural resource conservation, environmental stewardship, operational efficiency and social responsibility. As the program continues to mature, several goals and objectives contained within the Sustainable Management Plan identify the need to look further into the future, and identify those aspects of the airport's infrastructure and operations that may be vulnerable to future climate-induced conditions including higher temperature, more extreme precipitation and sea level rise. More importantly, as the airport continues its robust development program, opportunities to enhance new facilities and infrastructure to reduce the risks and vulnerabilities created by future climate-based stressors are being considered and may be further enhanced. RS&H is assisting the Authority through the development of an initial resiliency assessment with the following objectives:

- Compiling existing infrastructure, operations and near-term project data and reports identifying previous evaluations of weather-related adverse impacts, claims, risk management decisions and/or operational procedures for managing severe weather conditions
- Identifying regional resiliency efforts and helping to establish a leadership role for the Authority in regional coordination
- Educating the Authority on expected future weather and climatic conditions and the process for evaluating the likely effects on infrastructure and operations
- Establishing preliminary resiliency goals and confirming the assessment process
- Conducting a high level screening analysis of existing Authority infrastructure and operations to identify potential vulnerabilities
- Conducting a high level screening analysis of airport-related regional infrastructure (roadways) and utilities (water, electricity) to identify potential vulnerabilities
- Investigating and prioritizing early action projects for resiliency considerations
- Establishing a policy and methodology for considering climate resiliency in near-term projects
- Developing an initial action plan for future resiliency efforts

Sustainability Services – RS&H Updated the Airports Sustainability Management Plan and associated tools. In the first phase of effort, conducted a baseline assessment of the airport sustainability program performance; benchmarked performance against peer airports and key stakeholders; surveyed and interviewed airport staff; evaluated program goals and metrics; and developed an updated vision and goals for the airport's new program.

UST Pull and Site Investigation Services – RS&H provided design, construction administration, and oversight services for the cleaning and removal of six, 20,000 gallon USTs, three fuel pits, and demolition of all associated appurtenances and fuel piping. The design incorporated limited site rehabilitation at the time of tank removal and the environmental remediation requirements in the approved Site Rehabilitation Funding Allocation (SRFA) agreement made between the Florida Department of Environmental Protection (FDEP) and the Hillsborough County Aviation Authority.

As part of the SRFA requirements, an interim source removal (ISR) of highly contaminated soil and groundwater was included in the design documents. This ISR activity was performed concurrently with the fuel tank removal. The ISR pit was excavated 25 feet into the water and required the installation of temporary sheet piling. The ISR pit remained open for 30 days facilitate the removal of contaminated groundwater through dewatering and pretreatment before discharged to the sanitary system. Upon completion of the ISR, the site was backfilled and properly restored. RS&H’s design, construction administration, and oversight services coordinated closely with the Storage Tank Compliance regulators with the Hillsborough County Environmental Protection Commission (EPC) and Florida Department of Environmental Protection (FDEP).

Houston Airport System On-Call Environmental Services

The Houston Airport System (HAS) operates three airports: George Bush Intercontinental Airport/Houston (IAH), William P. Hobby Airport (HOU), and Ellington. Airport (EFD). RS&H has provided comprehensive on-call environmental services to the HAS since June 2014. RS&H has led a multidisciplinary team including 12 specialty environmental scientists and NEPA specialists in more than 70 assignments, including:

- **Air Quality.** Included compliance with annual emissions reporting requirements, general conformity applicability analyses, greenhouse gas emissions estimates, and Voluntary Airport Low Emissions (VALE) grant applications.
- **Water Quality.** Included stormwater monitoring, monitoring permit compliance with conditions of the HAS Texas Pollutant Discharge Elimination System General Permit and peer review of deicing management practices.
- **Wetlands and Biological Resources.** Included field investigations and delineations for over 20 parcels totaling nearly 1,000 acres at all HAS airports.
- **Historic and Cultural Resources.** Included archaeological resources investigations for undeveloped areas at all HAS airports, and assessment of the historic significance of HAS structures.
- **Hazardous Materials.** Investigated and identified mitigation/remediation options for lead-based paint, asbestos, PCB contamination, and mold at HAS facilities. Investigated and identified mitigation/remediation options for contaminated soil and groundwater.
- **NEPA.** Prepared 11 documents for a range of airfield, infrastructure, and revenue generation development projects.
- **Strategic Planning.** Development of a comprehensive NEPA, wetlands permitting, and cultural resource investigation strategy for IAH.

Philadelphia International Airport Stormwater Planning Assessments & Design

Philadelphia International Airport (PHL) discharges directly to, and into tributaries of, the tidally influenced Delaware River. The studies considered future climate change assumptions including increased precipitation and tailwater effect components (e.g. sea level rise and storm surge) from the Climate & Urban Systems Partnership (CUSP). Based on the expected design life of the proposed infrastructure, the climate change impacts in 2050 were considered for these studies.

Tidegate Improvements & Drainage Study RS&H led the design and production of construction documents for the Tinicum Township Outfall Improvements project, which included the removal and replacement of self-regulating tide gates with new canal gates, slope stabilization, installation of an upstream incline check valve, and installation of a trash guard. RS&H was responsible for leading the hydrologic and hydraulic analysis, including efforts related to development of drainage maps, models, and a drainage report.

FDR Park H&H Study The drainage involved data collection, drainage mapping, drainage analysis and modeling required for the evaluation of the existing tidally-influenced system under a series of varying design boundary conditions (including climate change conditions). The primary objective for this drainage study is to identify any significant constraints that would preclude or restrict planned wetland establishments.

West Development Drainage Study RS&H performed a drainage study for the West Cargo Development, located within the western part of the airport, particularly covering PHL Outfall 5, PHL Outfall 6, Tinicum Township, and the Long Hook Creek watersheds. The goal of the analysis was to assess the stormwater impacts and identify the required stormwater mitigation for the planned development

Sacramento International Airport PFAS Determination Work Plan and Implementation

The State of California Water Resources Control Board (CWRCB) issued Order WQ 2019-0005-DWQ, and within this Order SMF was identified as certified by the FAA for the use of aqueous film forming foam (AFFF) containing PFAS chemicals. RS&H developed the work plan required by the Order for SMF including identifying AFFF discharges and their extent, potential receptors of PFAS, and sampling protocols for collection of groundwater, soil, and surface water to confirm the presence and extent of PFAS contamination on-site. RS&H coordinated between airport staff, regulatory agencies, and Sacramento County officials to develop a plan with a scope and budget to meet SMF's regulatory obligations. This effort involves coordination with airport staff, the CWRCB, sampling contractors, and laboratory personnel to collect and analyze the data and submit the final report within a highly restricted timeframe.

Charlotte-Douglas International Airport NEPA Documentation

Charlotte Douglas International Airport (CLT) is a large-hub airport with more than 22 million enplanements. RS&H has developed multiple NEPA documents for CLT including an EA for a General Aviation Campus; an EA for release of 120 acres of Airport property; and many Categorical Exclusion documents. RS&H also conducts quality control reviews for Categorical Exclusion documents developed by CLT staff before being submitted to the FAA. As part of this on-call assignment, RS&H is providing aviation planning, NEPA documents and mentoring, design, and/or construction administration services for various ACIPs, including on-call airside and landside projects. RS&H was initially selected in 2011 for a general consulting assignment for engineering services, and then reselected in 2014. Based on the extensive aviation knowledge, project experience, and communication methods with all levels of the Airport

Staff, RS&H was re-selected in 2017 for a new on-call contract, to provide engineering, architectural, planning, and environmental services at the Airport at a moment's notice.

RS&H developed comprehensive strategies for NEPA documentation on mid- and long-range projects. This helped to ensure all project elements and connected actions were assessed in concert. RS&H coordinated with each federal, state, and local agency early in the NEPA process. This approach established an early line of communication and advanced the NEPA documentation. The FAA expects clear, concise, and professional documents. RS&H is known for our unparalleled understanding of exactly what the FAA will be looking for in providing an effective, well-written document that meets FAA Orders.

3.4. McFarland-Johnson, Inc. Experience

BCAD Qualified Vendor & On-Call Planning Review & Advisory Services

Since 2018, MJ has been providing professional services to BCAD for proposed improvements at the Fort Lauderdale Hollywood International Airport (FLL) and North Perry Airport. Task assignments to date at FLL include:

- **NEPA Purpose and Need Documentation for Landside Projects:** MJ provided aviation planning analyses to develop purpose and need projections, calculations, and documentation to support airport landside projects and initiatives including: Automated People Mover (APM), Parking Garage Demolition and Replacement and the Terminal Loop Roadway and Curb front Improvements. The purpose and need documentation provided pertinent background information regarding need and justification for the recommended airport improvements as presented in the most recent Master Plan Report, ALP drawing set, and other information provided by BCAD. Existing and projected aviation activity was discussed as it relates to the recommended improvements. Financing, implementation, and phasing of the proposed improvements were also evaluated.
- **NEPA Categorical Exclusion for West Side Dry Retention Pond.** This task includes drafting of the CATEX document. The MJ planning team, including an environmental lead, is reviewing airport documentation and previous environmental reviews provided by another firm to complete an ARP SOP 510 form and draft a supplementary memorandum to support its transmittal to the FAA.
- **NEPA Requirements Matrix for FY2019 Capital Improvement Plan.** Review of the potential NEPA requirements for the projects identified in the BCAD Capital Improvement Plan (CIP) for Fiscal Year 2019. Each project in the CIP was reviewed to determine if the project would constitute a Federal Action, as defined in FAA Order 5050.4B, NEPA Implementing Instructions for Airport Action. For those projects determined to be a Federal Action, FAA Order 1050.1F, "Environmental Impacts: Policies and Procedures" was reviewed to determine the level of NEPA review that is required. An internal memorandum, a memorandum for the FAA, and a Project Report were drafted for this task. The MJ Planning Team, including an Environmental Lead, drafted these documents with feedback from the BCAD Aviation Planning Manager.
- **NEPA – CATEX for North Airfield Pavement Rehabilitation.** This task included completion of a documented categorical exclusion (CATEX) for the north airfield pavement project. The project includes; a 9,000 ft. Asphaltic Concrete Runway, two EMAS beds, four high speed exits, partial areas of two parallel taxiways, taxiway connectors, and demolition of the old runway threshold and taxiway connector, as well as construction of a new 90-degree taxiway in place of the removed taxiway connector. Associated airfield lighting including taxiway edge lights, runway edge lights, runway threshold lights, runway end lights, guard lights and airfield signage will be replaced.
- **On-Site Planning Advisory Services.** This task provides on-going extension of staff services for day to day planning and environmental needs across all spectrum's of BCAD's facilities.

3.5. Planning Technology Incorporated Experience

iALP for All Broward County Airports

PTI's iALP is a web-based tool that allows the Broward Count Aviation Department (BCAD) staff to view, manage, analyze, maintain and update airport data for all aviation facilities. It also contains an interface to the FAA's OE/AAA system that allows direct input of proposed on-airport development, significantly reducing FAA review times.

BCAD's iALP tool also includes Access to Airports GIS and other data for viewing, measuring and coordinate location purposes on any computer without any purchase of software, as well as an easy to use interface for BCAD staff that allows the capabilities of a CAD package without the intense learning curve associated with a CAD package.

Additionally, All FAA analysis criteria has been programmed into the tool to allow the Authority staff to easily view the impacts of the proposed development without having to rely on the FAA and/or interpretation of FAA criteria documentation. Graphical data has been standardized so that all departments/consultants will be utilizing the same format for any efforts undertaken which minimizes the data maintenance efforts. This includes land use, noise and other environmental data and permitting processes.

Port Authority of New York & New Jersey: John F. Kennedy International, LaGuardia, Newark Liberty International and Teterboro Airports. This tool, as part of an FAR Part 150 noise study, allows for a public and internal portal to store, view, edit and share data and analyzes that is developed through the FAR Part 150 process.

Broward County Department of Airports: Fort Lauderdale-Hollywood International Airport

PTI developed and continues to support the internal and public web site for the Part 150 Noise study. The site collects and disseminates non-graphic and graphical (GIS) data that is associated with meetings and analysis portions of the study.

3.6. Montgomery Consulting Group, Inc. Experience

FLL Partnership for Quieter Skies Assistance (PQS)

MCG, as a subconsultant to HMMH is assisting BCAD with implementing the “Partnership for Quieter Skies Assistance” (PQS) for FLL. The objective of this task is to collect data and prepare quarterly reports for the Airport Noise Advisory Committee from the ANOMS systems, which includes:

- **Fleet Noise Rating:** This rating evaluates the noise contribution of each airline's fleet as it operates at FLL. Airlines own a variety of aircraft types and schedule them according to both operational and marketing considerations; the program would assign a higher rating to airlines operating quieter, new generation aircraft, while airlines operating older, louder technology aircraft would rate lower. The goal of this measurement is to fairly compare airlines-not just by the fleet they own, but by the frequency that they schedule and fly particular aircraft into FLL.
- **High-Noise Event Rating:** This rating encourages use of quieter aircraft and procedures, to minimize activity disturbance in noise-sensitive areas. We have identified single event maximum noise limits at each monitor, based on reasonable activity-interference criteria, such as speech or sleep. The program tracks and reports the number of high noise events by airline per quarter.
- **Runway Use Data:** This program element summarizes runway use statistics, in both graphic and tabular form, by time of day, as well as operator category (i.e., air carrier and general aviation).
- **Flight Track Density Plot:** This plot helps identify flight track densities over areas surrounding the airport and areas with potential noise complaint issues.
- **Update on Noise, Planning, and Related Activities at FLL:** This element provides brief updates of the status of planning and environmental studies that could influence the noise environment around the airport, including the Part 150 Update and the EIS for the Proposed Extension of the South Runway.

FLL Environmental Assessment

MCG, as a subconsultant to HMMH, assisted the City of Ft. Lauderdale in preparing an FAA Environmental Assessment (EA) addressing the potential lifting of the Fort Lauderdale Executive Airport (FXE) weight-bearing limit for Runway 9-27. The EA was prepared in accordance with the requirements of the FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, and FAA Order 5050.4B, NEPA Implementing Instructions for Airport Actions.

The need for the EA builds on prior HMMH and MCG assistance to the City of Tamarac. Based on the results of these steps, the City decided to pursue raising the weight limit to the load-bearing capacity determined in the most recent pavement analysis.

One of the implicit purposes of the 60,000 lb. dual-wheel weight-bearing limit was to limit noise exposure in Tamarac, under the assumption that “heavier aircraft equaled louder aircraft.” While that assumption was generally (but not always) true in 1981 when the two cities entered into the Settlement Agreement, advances in aircraft technology over the past 32 years have effectively rendered that assumption untrue, especially for the aircraft types operating at FXE. Now the weight-bearing limit is counterproductive from a noise perspective and increases aircraft noise in Tamarac and other communities by encouraging operations of older, louder aircraft.

MCG prepared the Significance Determination for FAA Actions, which compares the potential environmental impacts of the No Action and Proposed Action Alternatives. The environmental analysis indicates the Proposed Action will not result in significant environmental impacts for any environmental resource or category.

3.7. Quest Corporation of America, Inc. Experience

Florida DOT I-95 Multimodal Master Plan Project

Quest leads the public information and outreach efforts for the 71-mile planning study that is part of the continuing process for the development of the Strategic Intermodal System and in reaching overall regional mobility goals. The project will help make recommendations to protect and enhance the corridor through the year 2045. Quest prepared a project specific public involvement plan to include outreach and key stakeholders. Quest facilitates and supports with the Technical Advisory Committees in all three counties in the Treasure Coast. Quest also facilitated public workshops for the public in each county, soliciting public input for the study. Our outreach has included a project specific website, social media advertising and community outreach.

3.8. Jones Payne Group Experience

San Diego County Regional Airport Quieter Home Program

Since 2006, the San Diego County Regional Airport Authority - Quieter Home Program (QHP) has engaged The Jones Payne Group, Inc. to provide sound insulation treatments to homes within the airport’s noise contour. The original construction dates for many of those homes range from the late 1800’s to the 1980’s. As is typical in older homes, many additions and renovation have changed the homes and require careful consideration for acoustic treatment.

- **Single Family Homes.** Construction types include wood framed on concrete foundations with stucco exteriors and wood windows, brick veneer traditional homes with steel windows, and custom designed homes.
- **Multi Family Homes.** The diversity of the housing stock impacted by noise in San Diego is distinctly apparent in the Banker’s Hill neighborhood. This neighborhood is on a hill facing the San Diego harbor and its resident airport. The neighborhood now has a 25-unit condominium, a mix of single-family homes, duplexes, and triplexes. In 2008, QHP began to treat housing with more than 6 units, which constitutes a large section of the impacted housing in the noise contour. Jones Payne assists QHP in developing treatment protocols within program standards for each of these types of buildings as they come into the program.

3.9. Keith & Associates, Inc. Experience

Terminal 4 Gate Replacement for Fort Lauderdale-Hollywood International Airport

This project includes the construction of a concourse with 14 new swing gates, a post security connector from Terminal 3 to the new concourse and required improvements to Terminal 3 to accommodate the connection. Construction of 7 vertical circulation cores connecting to a sterile corridor which provides access to the existing Federal Inspection Services (FIS). Modifications and expansion of the Security Screening Check Point (SSCP). Construction of new BCAD offices on the third and fourth levels at the center of the new concourse, including Airport Operations Communication Center (AOCC), and FLL Emergency Operations Center (EOC), construction of a chiller plant, commissioning and electrical substations, and demolition of the existing H concourse.

KEITH is currently providing Construction Project Management (CPM) services for this project. KEITH's responsibilities include controlling the overall sequencing of the projects to facilitate completion of each construction contract as part of the project within the approved time frame and within the estimate of construction cost of the project. Additionally, KEITH was also responsible for quality acceptance of the construction work in accordance with the construction and procurement contracts it manages and in accordance with BCAD/PMO Policies and Procedures, monitoring the work of the construction contractor(s), and responsible for construction management of the project-related construction contracts.

3.10. Gartek Engineering Corporation Experience

Broward County Aviation Department, Residential Sound Insulation Program

The \$116 million program spearheaded by Broward County to manage and administer the noise mitigation measures proposed and approved by the Federal Aviation Administration (FAA) included a Voluntary Sound Insulation of Single-Family and Eligible Multi-Family Units component in which Gartek rendered Mechanical and Electrical Engineering design and Inspection of approximately 1,800 eligible residences near the Fort Lauderdale Airport area for the Voluntary Residential Sound Insulation program associated with noise mitigation including preliminary design, presentation to home owners, final design, probable construction cost estimates and construction inspection. Additionally, the construction administration of twelve 10-unit packages and one 80-unit bid package, which is the construction administration of Phase IIA.

Little Haiti Cultural Center, Miami, FL

As a sub consultant to a Prime architectural firm Gartek provided full Mechanical, Electrical, Plumbing and Fire Protection engineering services for a new cultural center which included a community building of approx. 12,000 SF and a black box theater of approx. 18,300 SF, and renovation of existing structure for conversion to a new market place type facility. Service included calculations and drawings for permitting and all other submittals, specifications, construction administration, meetings, field visits and reports, shop drawings review coordination with utilities. Design of a new fire alarm system per requirements. Construction costs: \$14 Million.

3.11. AirQuest Environmental, Inc Experience

Fort Lauderdale-Hollywood International Airport Asbestos & Lead Based Paint

The Broward County Aviation Department had a contract to expand Terminal 4 at the Fort Lauderdale-Hollywood International Airport. The contractor identified suspect asbestos containing materials during excavation activities at the site. Samples were collected by the contractor and submitted for laboratory analysis of asbestos and lead based paint. Asbestos and lead were reported in the samples collected at the site.

Based upon these results, AirQuest was contracted to confirm the presence and extent of asbestos containing materials, develop a remedial plan, obtain cost estimates and notify regulatory agencies. AirQuest was also

requested to collect soil and groundwater samples to evaluate if lead impacted the soils and groundwater at the site.

The results of the assessment indicated that there was asbestos debris (mastics, flooring, roofing and Transite) throughout the planned development area. Although lead based paint was identified on construction debris, the results of soil and groundwater analysis determined that only a small area of soils were impacted.

A remedial plan was developed for the excavation and disposal of the asbestos and lead impacted soils. The plan included provisions for decontamination of the excavating equipment, trucks used for transportation as well as standard worker protection provisions, including an onsite decontamination trailer. Personnel and ambient air monitoring procedures were included in the abatement plan.

Meetings were held with County and EPA representatives to coordinate efforts, obtain expedited regulatory approval as construction of the new terminal was on hold pending resolution of the asbestos and lead contamination.



3.12. Vendor Reference Verification Forms



Vendor Reference Verification Form

Broward County Solicitation No. and Title:

RFP PNC2119437P1 - Environmental Planning and Acoustical Consulting Services

Reference for: HMMH

Organization/Firm Name providing reference:

Maryland Department of Transportation Maryland Aviation Administration

Contact Name: Robin M. Bowie

Reference date: 12/16/2019

Contact Email: rbowie@bwiairport.com

Contact Phone: 410.859.7103

Name of Referenced Project: Comprehensive On-Call Aviation Noise Consulting for State Airports

Contract No.

Date Services Provided:

Project Amount:

MAA-SV-17-011&19-001

06/01/2016 to 12/31/2019

\$ 6,000,000.00

Vendor's role in Project: Prime Vendor Subconsultant/Subcontractor

Would you use this vendor again? Yes No

Description of services provided by Vendor:

Comprehensive airport noise-related consulting services

Please rate your experience with the referenced Vendor:	Needs Improvement	Satisfactory	Excellent	Not Applicable
1. Vendor's Quality of Service			<input checked="" type="checkbox"/>	<input type="checkbox"/>
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:			<input checked="" type="checkbox"/>	<input type="checkbox"/>
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Timeliness of:			<input checked="" type="checkbox"/>	<input type="checkbox"/>
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:			<input checked="" type="checkbox"/>	<input type="checkbox"/>
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Additional Comments: (provide on additional sheet if needed)

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Verified via: EMAIL VERBAL Verified by: _____ Division: _____ Date: _____

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Vendor Reference Verification Form

Broward County Solicitation No. and Title:
RFP PNC2119437P1 - Environmental Planning and Acoustical Consulting Services

Reference for: **HMMH**

Organization/Firm Name providing reference:
Port of Oakland

Contact Name: **Matthew Davis**

Reference date: **12/16/2019**

Contact Email: **mpdavis@portoakland.com**

Contact Phone: **(510) 563-6436**

Name of Referenced Project: **On-call Noise Consulting for Oakland International Airport**

Contract No.
07093

Date Services Provided:
03/25/2007 to 12/31/2019

Project Amount:
\$ 782,330.00

Vendor's role in Project: Prime Vendor Subconsultant/Subcontractor

Would you use this vendor again? Yes No

Description of services provided by Vendor:

Aviation-related acoustical services for Oakland International Airport (OAK)

Please rate your experience with the referenced Vendor:	Needs Improvement	Satisfactory	Excellent	Not Applicable
1. Vendor's Quality of Service				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Timeliness of:				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:				
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Additional Comments: (provide on additional sheet if needed)

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Vendor Reference Verification Form

Broward County Solicitation No. and Title:
RFP PNC2119437P1 - Environmental Planning and Acoustical Consulting Services

Reference for: **RS&H**

Organization/Firm Name providing reference:
RS&H, Inc.

Contact Name: **Justin Smith** Reference date: **01/09/2020**

Contact Email: **JWSmith@TampaAirport.com** Contact Phone: **813-676-4215**

Name of Referenced Project: **Initial Resiliency Assessment**

Contract No. **505.431.061.52125** Date Services Provided: **02/20/2019** to **09/30/2019** Project Amount: **\$ 199,529.00**

Vendor's role in Project: Prime Vendor Subconsultant/Subcontractor

Would you use this vendor again? Yes No

Description of services provided by Vendor:

RS&H compiled existing infrastructure, operations, and near-term project data and conducted a comprehensive climate-induced risk and vulnerability assessment using relevant climate data. The data was used to develop an initial action plan for future resiliency efforts.

Please rate your experience with the referenced Vendor:	Needs Improvement	Satisfactory	Excellent	Not Applicable
1. Vendor's Quality of Service				
a. Responsive	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Accuracy	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Vendor's Organization:				
a. Staff expertise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Professionalism	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Turnover	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Timeliness of:				
a. Project	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Deliverables	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Project completed within budget	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Cooperation with:				
a. Your Firm	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Subcontractor(s)/Subconsultant(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Regulatory Agency(ies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Additional Comments: (provide on additional sheet if needed)

This team received high accolades from the CEO and Executive Team for their thoroughness and ability to deliver complicated material in a very comprehensible manner

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Vendor Reference Verification Form

Broward County Solicitation No. and Title:
RFP PNC2119437P1 - Environmental Planning and Acoustical Consulting Services

Reference for: RS&H

Organization/Firm Name providing reference:
RS&H, Inc.

Contact Name: Justin Smith Reference date: 01/09/2020

Contact Email: JWSmith@TampaAirport.com Contact Phone: 813-676-4215

Name of Referenced Project: Sustainable Management Plan & Sustainable Design Criteria Manual

Contract No. Date Services Provided: Project Amount:
505.431.061.52125 03/29/2019 to 09/30/2019 \$ 96,927.00

Vendor's role in Project: [X] Prime Vendor [] Subconsultant/Subcontractor

Would you use this vendor again? [X] Yes [] No

Description of services provided by Vendor:

RS&H conducted a baseline assessment of sustainability at Tampa International Airport and completed industry benchmarking. RS&H identified opportunities for improvement in sustainability planning including processes and procedures.

Table with 5 columns: Please rate your experience with the referenced Vendor, Needs Improvement, Satisfactory, Excellent, Not Applicable. Rows include Vendor's Quality of Service, Vendor's Organization, Timeliness of, Project completed within budget, and Cooperation with.

Additional Comments: (provide on additional sheet if needed)

This team provided excellent guidance and recommendations for updating the existing SMP to be more effective and reflect the culture of sustainability at TPA

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4. Specialized Experience and Capabilities

HMMH carefully and strategically developed our proposed team to exceed BCAD expectations in terms of overall team experience and capabilities, including the three areas provided in the RFP. Our team's experiences and capabilities in these three areas are described in full below.

4.1. Regulatory Agencies/Divisions

Our team is exceedingly familiar with the permitting process and understands the complexity of interagency coordination. In particular, teaming partners McFarland Johnson and Kimley-Horn are highly experienced with permitting requirements and in working with regulatory agencies across South Florida, such as U.S. Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (USACE), Florida Department of Environmental Protection (FDEP), Florida Department of Transportation (FDOT), South Florida Water Management District (SFWMD), Broward County Department of Health, Broward County Building Department, Broward County Environmental Protection and Growth Management Department (EPGMD), Broward County Water and Wastewater Services (BCWWS), and Florida Fish & Wildlife Conservation Commission (FWC), among others.

Our team is experienced in preparing permit applications for these agencies, know what is required to gain approval, excels in providing the high level of coordination that facilitates an expedited permitting process. For example, Kimley-Horn has received approval for 100% of all applications filed with the SFWMD (with the exception of those applications withdrawn by clients for financial or other reasons). This success ratio was achieved through years of collaborating and building relationships at SFWMD, and the level of trust Kimley-Horn's environmental professionals have built with the District. Our team also provides efficient tracking of permit conditions to ensure that projects remain in compliance through construction and final project delivery.

In addition, team members are experienced in identifying necessary federal, state and local permits, and preparing permit applications in accordance with Chapters 373 and 403 of Florida Statutes and Chapters 40 and 62 of Florida Administrative Code. With regards to Broward County, team member McFarland Johnson understand the local permitting process, *ePermits* system and has completed permit applications such as:

- Air Licenses for parking facilities
- Dewatering approval
- Environmental Resources License
- Storage Tank License Permit
- Surface Water Management License
- Tree Removal License
- Wastewater Collection / Transmission System
- Wetland Delineation

Additionally, all airport environmental studies and permit applications are designed to satisfy NEPA, as well as all subsequent federal, state and local environmental regulations. All work is conducted in strict accordance with FAA Orders 1050.1F, "Policies and Procedures for Considering Environmental Impacts" and 5050.4B, "National Environmental Policy Act (NEPA) Implementing Instructions for airport Actions". Additionally, our team will ensure that work conducted under this RFP will be coordinated when appropriate with the Broward County Environmental Protection and Growth Management Department (EPGMD) in accordance with Chapter 27 of the Broward County Code, also known as the Natural Resource Protection Code. This coordination will be made to ensure that all applicable state and local requirements are met.

Regarding Federal Emergency Management Agency (FEMA) requirements, our team is familiar with the permitting process associated to FEMA claims and reimbursements requirements.

Florida Department of Transportation

Our team members, particularly Kimley-Horn, has an extensive background obtaining permits and approvals with FDOT, and are very familiar with all FDOT programs, guidance, requirements and funding opportunities. For example, Kimley-Horn's consulting services to the FDOT Aviation and Spaceports Office have included the development of the following statewide resources: Guidebook for Airport Master Planning, Airport Sustainability Planning Guidebook, Florida Aviation System Plan, Florida Airport Economic Impact Study, Florida Aviation Activity Forecast Methodology Tool, Operations Counting methodologies at Non-Towered Airports, the 2008, 2012, and 2016 updates of the Analysis of Scheduled Commercial Air Service in Florida report, the statewide roll-out of the Airport Compatible Land Use Guidebook, the FDOT Standard Specifications for Construction of General Aviation Airports, General Aviation Airport Business Plan Guidebook, T-Hangar Design Guidelines, development of statewide airport security assessments, the development of the Aviation Emergency Response Guidebook, statewide pavement management training, and statewide pavement management inspection. Kimley-Horn is also developing a statewide training program to assist FDOT Districts in understanding the various programs and policies that affect airports in the state.

In addition to these projects, Kimley-Horn also responds to immediate requests from FDOT to provide them with summary reports and information. Examples of this type of request include development of a statewide aviation informational brochure, and an analysis of airline incentives at Florida's commercial service airports. Future projects will likely include future updates to the Analysis of Scheduled Commercial Air Service in Florida report, aviation system and strategic planning (including funding, forecasting operations, airport master planning, and layout plans, and airport/spaceport safety regulations analysis), aviation operations (including operational functions, airport inspections, and emergency management). Information technology (including maintaining the Florida aviation Database), environmental (including airport environmental sustainability strategy, storm water and water management, environmental assessments, and environmental impact statements), and engineering (including pavement management and airport design, GIS and review/update construction specifications).

4.2. Related Public Meeting and Communication

Throughout our firm's history, HMMH has supported community forums, stakeholder advisory committees, aviation roundtables, and public meetings focused on aircraft noise and environmental concerns at airports. These forums range from ad-hoc committees put in place to address a particular issue; to public meetings, workshops, or hearings for a particular project; to recurring regular meetings. HMMH is currently involved in a number of airport community roundtable-type forums devised across the United States, often in response to the Federal Aviation Administration's (FAA) recent implementation of NextGen aircraft procedures. Additionally, team members assembled on this project have supported public meetings for Environmental Assessments and Environmental Impact Statements. We are fully prepared to support any environmental public meeting that may occur as a result of any development, remediation, FAA, or airport action.

HMMH's experience and understanding of FAA process and procedures is most valuable to the successful facilitation and consultation of community forums. By having trained meeting facilitators on staff, we assist in being candid with communities. Honesty and transparency are essential to providing appropriate support to public meetings.

While noise is not the only concern of the public, it is often a touchpoint for the community: even at public meetings that may not be focused on noise. HMMH excels at defining community- perceived aircraft noise and/or operation problems and finding solutions to those problems, which requires working closely with communities, the airport, the airlines and the FAA. When appropriate, we recognize the importance of including the FAA as an

invested entity. HMMH has an established relationship with the FAA that allows our experienced staff to work alongside them to solve complex issues; and help identify the most appropriate FAA personnel to be involved in those solutions.

HMMH currently is supporting the following recurring roundtables:

- Los Angeles International Airport (LAX) Community Noise Roundtable
- Southern San Fernando Valley Airplane Noise Task Force
- San Francisco International Airport (SFO)/Community Noise Roundtable
- Charlotte Douglas International Airport (CLT) Airport Community Roundtable
- Oakland Airport (OAK)/Community Noise Management Forum
- DC Metroplex Baltimore/Washington International Airport (BWI) Community Roundtable
- San Diego International Airport (SAN) Noise Advisory Committee

Many of our team members have extensive experience with public involvement and communicating complex technical information to all stakeholders that can be called upon when needed. We have selected Quest as our public outreach specialist subconsultant. Quest is known for effectively using proactive, grassroots outreach strategies combined with technology that communicate to, and receive input from, all interested persons, groups, and government organizations throughout the development of their projects. Founded in 1995 and celebrating 25 years this year, the firm's experience includes engaging officials and community stakeholders in the area through serving on numerous aviation projects across the State. Quest has successfully managed or is actively providing public involvement and community outreach in support of the Florida Department of Transportation (FDOT) Aviation and Spaceports Office and such multimodal programs as Aviation Master Plan Updates, Long Range Transportation Plans (LRTP), Bus Rapid Transit (BRT) planning, Intelligent Transportation System (ITS) studies, transit studies, and corridor studies. Quest is experienced in garnering critical feedback and providing the clear, concise, and timely information to the community that is vital to successfully achieving consensus.

Quest's grassroots strategies provide both traditional and innovative public outreach to a diverse array of stakeholders and community members. Quest staff offers public meeting/hearing coordination, interactive workshops, media relations, intergovernmental coordination, community presentations, special events, charrettes, focus groups, issues resolution, graphic and multimedia design, stakeholder database development, website creation and maintenance, and social media outreach.

For each outreach assignment, Quest conducts a comprehensive inventory to identify key stakeholders, successfully engaging all facets of the community in the aviation decision-making process. Additionally, Quest's in-house, award-winning creative services division can develop eye-catching, impactful newsletters, brochures, multimedia presentations, and websites that can be used to proactively disseminate crucial information to residents, businesses, agencies, and elected officials. Quest's ability to provide the community with clear, concise, accurate, and timely information in a proactive manner sets a foundation for meaningful engagement that incorporates diverse viewpoints vital to a project's success.

Quest staff have designed survey instruments and conducted passenger surveys, focus groups, and public opinion polls for clients nationwide, including FDOT, Hillsborough County Aviation Authority (HCAA), Miami International Airport, Airport Cooperative Research Program (ACRP), and Palm Beach International Airport. This experience will augment the firm's ability to identify key stakeholders and adequately convey their input to incorporate as part of the planning process.

4.3. FAA Standards and Procedures

Our team has a level and breadth of experience with the FAA that few consultants can provide. In addition to our knowledge and expertise with funding, policies, processes, and personnel, we are also very familiar with the FAA Reimbursable Agreement (RA) process and equally adept at keeping that process moving forward. Issues, knowledge and skill sets include, but are not limited to:

- A thorough understanding of how the FAA funding process works, the types of funds available, timing, and most importantly, how best to compete for limited available funding.
- Significant experience with the evaluation, siting, procurement, and installation of Navigational Aid Systems (NAVAIDS) including, where appropriate, the RA process with the FAA. This experience also includes a basic understanding of Terminal Instrument Procedures (TERPs) and a working relationship with the FAA.
- Substantial experience and knowledge of the Advisory Circular system and associated requirements as they relate, but are not limited to, airport design and construction standards.
- Significant experience with operational issues associated with airfield safety, runway incursions, and FAR Part 139 requirements.
- A thorough understanding of the airspace evaluation process, particularly as it relates to the construction of new facilities (7460's and 7480's).
- Airport Improvement Program Handbook (Order 5100.38D)
- In-depth knowledge of the National Environmental Policy Act (NEPA) and other environmental issues related to airport development and project implementation.

As an agency overall, the FAA's primary goals are to maintain or improve safety, efficiency, and capacity of the National Airspace System (NAS). However, with increased global environmental concern paired with growing air traffic volume, the FAA and specifically its Office of Airports and Office of Environment and Energy (AEE) also must mitigate, if not improve, the environmental impact arising from operation of the NAS and airport operations. Over the past several decades, concerns pertaining to adverse effects on environment resources have led to policy and regulatory actions from the FAA (in addition to the agency's NEPA Orders and guidance). Our team is very familiar with environmental guidance and requirements of the FAA, including FAA wildlife hazard management related advisory circulars, noise (Part 150 and 161 Study requirements), the FAA Air Quality Handbook, sustainability and recycling guidance for example.

5. Workload

HMMH prides itself on exceeding client expectations. At HMMH, we make clients for life. We do not propose on projects to which we are unable to commit the appropriate resources, and are thus able to consistently produce the desired work project within time and budget constraints. A list of all completed and active projects managed in the past five years for HMMH is included below.

HMMH has contracted with Dun & Bradstreet to conduct client satisfaction surveys. We are proud of our high marks, and have received a 90% client satisfaction rating on responsiveness. We encourage BCAD to contact any of our past clients for reference on our ability to respond to their needs.

HMMH is strongly committed to the production of quality deliverables and is committed to meeting the BCBC's requirements as identified under this contract. To that end, all HMMH projects adhere to Quality Assurance/Quality Control process developed to provide recommendations and procedures for project teams for producing high quality acoustical and environmental deliverables and documents that comply with federal, state, and local policies and regulations while maintaining functionality and readability. It is designed to provide a functional and easily understood set of guidelines to maintain and ensure quality during the execution of environmental projects and the preparation of environmental documents and can be modified to serve as a project-specific QA/QC plan.

HMMH Completed and Active Projects from the Past Five Years

DFW Sustainability On Call	BNA Runway 2R-20L Closure Noise Analysis	Suffolk County Trap and Skeet
Greystar Development Grantville Station	ODOT I-5 Rose Quarter	NASA AEDT Training Course
ACRP Future of Aviation Insight Event	JFK Terminal 8 Improvements NEPA	Rt. 121 Corridor Q Intersection
Independent Review of Air Carrier Noise	TxDOT On Call	INT Taxiway Q EA
Engine Run-up Feasibility Study	LAWA Environmental On-Call	RDU On-Call
RecSolar Solar Glare Analysis	LAWA Environmental On-Call	Proposed Hillsboro Airport 13R-13L RSA
MassDOT Transit & Rail GES	Houston Non-Standard Taxiways	IND Part 150 NEM Update
MBTA Back Bay Station Package Two	Task 005 Streetcar Advanced Conceptual	Nansemond Parkway Overpass AQ/Noise
STL Vale Application	PPMC Helicopter Noise	PBC DOA General Consulting Services
ODOT-US26 Outer Powell Phase 2	HPN Aircraft Noise Program Assistance	Cultivation Facility Noise Study Review
RTAA RC for AEDT 2019 Contours	LAWA RC for AEDT Subscription Service	ONT On-Call Acoustical Consulting
ACRP Problem Statement Development	Massport Sustainability Benchmarking	Roy Rogers Road Widening
LNA Part 150	PHL Sustainability Services On-call	Pittsburgh Norfolk Southern Vertical
HVN Master Plan	Kimely-Horn and Assoc. On-Call	SunPower Agilent
Naples Data Export	MBTA Oak Grove Accessibility Improvement	Howe Family Farm
Tree Clearing Effects Review / Comment	U.S. Highway 311 Connector Road	Sikorsky On-Call
Smith Remyolds Taxiway L EA Support	Route 121/460 Poplar Creek Noise Update	EA for UH-1N Replacement at Malmstrom
SEA Ground Noise Assessment	Westford Residence Litigation Support	BaWa r.e. Master Services Contract
Gabreski Airport Solar Glare Analysis	Hokuala/Timbers Resorts Lihue Airport	Orange County Tactical Training Range
Oakland Noise On-Call 2019-2023	CDM LAX Environmental On-Call	PDARS Bridge Contract
Substation Noise Study	Curacao Solar Glare	PTAA Part 150 Update
BNA Concourse A Expansion EA	US Route 1 Improvements	PTAA Part 150 Scoping
BUR Noise Analysis Services	SJC Noise Control Program On-Call	PTAA Runway CATEX Support
RIDOT Engineering Services On-Call	SAT On-Call	Strata Summit Solar
Massport Noise Consulting 2019-2024	Review of Maine Medical Center Heliport	Danville Solar
ROA Master Plan Update	Suriname Int'l Airport Noise Analysis	Deep Creek Bridge Replacement
Amtrak East River Tunnel Line 1 & 2	MBTA GLX CM/PM Oversight	PTIA On-Call
OGG Runway Reconstruction	AECOM LAWA On-Call	MBTA D Line Branch Track & Signal
ORF Master Plan	MassDOT Environmental Services	MBTA D Line Branch Track & Signal
Crittenden Road City of Suffolk	FXE Airport Noise Consulting	ACRP 02-82 Roadmap to Zero Emissions
JFK Central Roadways	Burnside Bridge Replacement	Senior Community Noise Analysis
Hampton Roads Bridge Tunnel Noise D-B	Acute Care Hospital Application	Laguna Niguel Acoustical Consulting Serv
Courthouse Landing Rt. 288 Noise Study	Durham-Orange LRT Peer Review	PEARS II IDIQ
PWK Sound Insulation Program	ODOT Env. & Trans Planning Services	Tustin Legacy Preliminary Noise Report
Amelia River Driving Course Noise Study	LaGuardia Air Train EIS	Juniper Ext PA 35-37 Interior Noise Anal

Brookfield Residential PA30
 Brookfield - Solstice
 Brookfield - Waverly
 Brookfield Residential-Rancho Coronado
 Brookfield - Holiday
 Jewel Encore exterior & Interior Noise
 Stanton Project Ext. and Int. Analysis
 Plano Noise and Air Quality
 Juniper Butte Land Withdrawal EA
 Airport Noise Control Practices Course
 CLT Round Table Support
 Interim CLT Round Table Support
 WA County SW 209th Ave Widening Project
 Aircservices Australia AEDT Course
 BTV Master Plan Update
 I-84 Interchange 17 Improvements
 GDOT I-285 Top End Express Lanes
 Amplus Solar Delhi Cargo
 Macadamia Solar
 Fern Solar
 LRAA RSIP On-Call
 CDC Lake Lynn Lab EIS
 ACRP A11-02(032) Env. Research Roadmap
 Chesterfield Engineering and Construction
 VDOT Noise and Air Quality On-Call
 Centre Island Contours
 MDOT Statewide Engineering Services
 HTO Part 161 Noise Analysis and Forecast
 Tewksbury Hotel Noise Study
 SEA RSIP IDIQ
 RPM Proposal-Preliminary Noise
 MSP Noise Mngmt Benchmarking Survey
 ACRP 02-83 Measuring Qlty of Life
 I-95 Rappahannock River Crossing Barrier
 Compliance Noise Testing MW Generators
 SLC Master Plan Update
 JWA Aircraft NADP Analysis
 Neabsco Mills Road
 AEM On-Call
 On-Call Planning IAD and DCA
 AECOM On-Call
 RIC East Side Rd. Abatement Study
 Geronimo Temperance Solar
 JFK Master Plan and Near Term Program
 Review of Noise and AQ Studies for I-84
 Hectate Energy-Old Haynessville Solar
 SNA Portable Noise Monitoring
 Santa Monica Noise & Vib Monitoring
 Fall River WWTF Facilities Plan
 Springfield IL Rail Monitoring
 Bourne Tidal Test Side Pile Driving Vib
 South Kelso Railroad Grade Separation
 Cadmus FHWA IDIQ
 Holliston Composting Noise Study
 Hanscom ESPR 2017
 Indian River Road (Ph VII) - CIP 2-256
 NYSDOT Noise Term Agreement
 Annual Services Contract for GCE
 ACRP A11-05-(005) Tactical
 Link Union Station

Murraysmith - On Call
 RDU Noise and Ops Monitoring Syst. Eval
 Truckee Tahoe Aircraft Measurements v2
 STL VALE
 SJHHC Helipad NICU
 UTC Ventur
 FHWA TNM 3.0 Interface Testing
 MPA Environmental Planning On-Call
 San Diego Airport Development Plan EIR
 I-64 Capacity Improvements Segment III
 Commonwealth Ave. Bridge
 Nimmo Parkway Phase VII B
 Chula Vista Wash N' Go Noise Study
 CAA BDL Runway 24 Departure
 PHX Sustainable Management Plan Update
 Toronto Pearson Int'l Airport: NEFCal
 VDOT Hampton Roads Major Project Office
 Sheehan CLP Tidal River
 I-205: Stafford Rd to OR99E Corridor
 daa On-Call acoustical support
 ACRP A11-02 (029) Research Roadmap O&M
 Burgin Parkway
 ACRP 11-05-01 Tactical Initiatives
 ACRP 11-02 (030) Airport Design & Const
 PHL/PNE Periodic Professional Services
 Philadelphia PSA
 OAK Airspace On-Call
 ACRP 02-76A Optimizing PCA at Airport
 SFO Roundtable Technical Consultant
 Mass State Rail Plan
 Heathrow On-Call
 Broadway Bridge Project PA/E Noise Study
 HNTB I-90/I-495 Interchange Improvement
 OJC AEDT Review
 Dieppe-Dorchester AStreet Noise Analysis
 Sentry Eagle MOA Noise Analysis
 Alternative Metrics
 Helicopter Annoyance Follow-on Research
 TVL Decommission Permanent NMS
 CHUGS MOA Noise Analysis
 Onyx Renewables On-Call
 SAN Sound Insulation / Noise On-Call
 Trenton-Mercer Airport Master Plan Noise
 BOI NOMS Assistance
 DPA Building Design
 Wellington Yard Construction Phase
 Cabot Red Line Yard
 Wellington Orange Line Yard
 Escondido Wash N Go
 CFC-Montclair, LLC
 Logan Terminal B EA
 RK&K-VDOT Environmental On-Call
 WM-VDOT Environmental On-Call
 WRA-VDOT Environmental On-Call
 Mead & Hunt Technical Services
 Phoenix Sustainability On-Call
 Vancouver Airport N. Runway End Safety
 MAA Airport Acoustical Services
 MAA On-Call Acoustical Services
 Master Plan Montgomery and Brownfield

Hanover County On-Call Timmons
 Burl. Int'l Airport Noise Mitigation Prg
 Indianapolis Solar Firestation
 Indianapolis Solar Hot Water
 East Brookfield Asphalt Plant Noise
 Gauss Solar
 BayWA Solar Solar
 Noresco Solar Atlanta Hartsfield
 UI Pequotnock Substation Noise Study
 Funfar V Falmouth, PDP
 Neil Anderson v. Falmouth , PDP
 Hannah Solar Anderson Airport
 BOS Runway Incursion Mitigation Study
 Port of Seattle Env. and Permitting IDIQ
 ACRP 02-72 Renewable Resource Strategy
 VIG Noise Study Peer Review
 Aeropuertos Argentina Solar Feasibility
 Sustainable Power-Calverton
 Cenergy Long Beach Solar
 MBTA GLX-D-B Contract Development
 Fresno Master Plan
 PBI Litigation
 Sea-Tac Solar Feasibility Study
 San Antonio On-Call
 Fairfax County Noise & AQ Term
 Peer Review of Colonie NY Landfill Noise
 Ricondo SMF On-Call
 CH2M AFCEC IDIQ
 CSRA FAA IDIQ
 Mass DOT T&R General Engineering
 Prescott Park Performance Stage
 GE Solar FAA Application
 BOS Aviation Noise Consulting Services
 Chesterfield On-Call
 Avon Park AFR Noise Study Interpretation
 CDM Smith LAWA Environmental On-Call
 River Raft Ride Noise Study
 Maine DEP Sound Assessment and Analysis
 Stantec Doppler Radar
 Cenergy Power Solar Glare
 Montrose Regional Airport Master Plan
 Saunders Station at Broad Hill Ctr Ph I
 Grand Forks UAS Noise Analysis
 Orange Railroad Station EIE
 City of Coppel Noise Ordinance Review
 Boston Heliport
 SEA Noise Consulting
 F-35 Noise Modeling @ Truax Field ANGB
 Central Broward E-W Transit Analysis
 Analysis of Tree Clearing at Keene Airpo
 HAS On-Call Environmental Consulting Svc
 LAWA Environmental On-Call
 Weber Traffic Noise Abatement
 Augusta Airport Solar Glare
 MBTA Back Bay Station
 Cape Cod Canal Transportation Study
 Eugene Airport Master Plan
 Canal Tidal Project
 Bowman Field Emission Inventory
 SDF Airborne Emission Inventory

Noise Reduction Procedures Enhancement	Logan Terminal E Modernization Phase 2	Review 2016 HTO Operations and Complaint
Livermore Solar	Logan Terminal E Modernization	HTO Assistance with Interim Evaluation
Highlands Diversified Solar	Heritage Museum Adventure Park	HTO Litigation Support
Dover Air Force Base	SEA Noise Mitigation Feasibility Study	HTO Noise Study Documentation
Wynn Expert Testimony	Pierre Airport Glare	HTO Phase 3 Noise Study
MBTA GLX 90 Day Review	YVR Engine run-up Location Assessment	HTO Phase 2 Noise Study
Life Data Lab Solar	Sadler Road Noise Study	SMF Solar Glare
Sanford Maine Solar	Sadler Road Noise Study	I-495 Middleboro Air Quality
PHX Solar Glare	Borrego Solar Task Order Contract	CLE Noise Monitoring
JAX Solar Glare	Aviation Noise Consulting Services	Tweed- New Haven Reg Airport NCP-TO1-Pr
Dallas Love Field Three DNL Contours	Nashville PCAir	Homestead ARB AICUZ Study
Amplus Energy Bangalor Airport	Nashville Shuttle bus	Tappan Zee Noise Analysis Review
CSH Andover Noise Study	FAA IDIQ	GW_Terminal_NoiseControlPlan
WRA Del DOT Park Ave	RIAC Solar	AWD_Phase3_FieldDeployment
Bell Helicopter INM Modeling	NOVA On-Call	EWS_Phase 2
Bell Helicopter 4th Noise Study	VDOT Env.Documents Noise&AQ - RK&K	Strata Solar Midland
Bell Helicopter	Mattapoisett Solar Compliance Monitoring	Omega/Houston Metro
TPA On-Call	Tahoe-Truckee Aircraft Noise Measurement	ACRP 11-02 Environmental Inventory
Birdseye Renewable Angus	Local Motors Acoustics at Nat'l Harbor	Myrtle Beach Go-cart Noise
Birdseye Hereford	Juvelen Coaster Study	Mount Cross Rd Widening Noise Study
Birdseye Bradley	Develop Noise Exposure Contours for Pear	Marstel-Day/USACE Mobile Corps BPA
Birdseye Renewables	Lincoln Labs Glare	Rt. 3 HOT Lanes ENF
Ventura County Solar Glare	San Diego North Glare Study	MKE Solar
Geronimo Bingham	TRC_TallGrass	ACK Solar Glare
Geronimo Aquarius	Strata Wadesboro	FHWA TNM Best Practices
Geronimo Marmas	Strata Solar timberlake	Ponnakin Hill Barrier Evaluation
Geronimo Capricornus Solar Gargen	Butler Georgia Glare	NBAA NADP Evaluation
Geronimo Aquila Glare Study	Dynamic_Hobart	Continued Tufts Building Demo Mitigation
Geronimo Cassiopea Glare Strudy	Coates Ave. Solar	Tufts Building Demo Mitigation
Geronimo Auriga Glare Study	SLC Renewables	CPK West Landing Litigation
GeronimoKramer Glare Study	DAL Annual Contours 2018-2022	Oxnard Solar Glare
Geronimo-Byron	DAL Annual Contours 2015-2018	Lancaster Solar PV Facility
Geronimo Andromeda	Dallas Love Field 2014 Annual Report	Noise Exposure Contours UCSF Helipad
Strata Solar Seymour Johnson AFB	Fresno 14 CFR Part 150 FAT AVIATION AIP	TRC Gabreski
Bowling Green (BWG) EA Support	Fresno-Yosemite Int'l Airport NEM Update	Massport Conley Terminal Improvements
Long Beach Airport Noise Audit	Tahoe Truckee SIL Feasiibility Study	Naples Hotel SIL Design Review I
Louisville (SDF) NEM Update	TEX Rail Noise & Vibration Design Svcs	MTA Purple Line P3 (Proposal Phase)
Osgood Solar	Sliding Hill Rd Noise Study	VDOT Statewide Noise Abate Services 2014
SLC Expert Witness	Summit Point Baptist Church	ACRP 02-47 Assessing Aircraft Noise Cond
Yeager Solar	Tucson Solar Phase II	ACRP01-28NextGen-Engage Airprt Stakehold
PMP-Pompano Beach Air.Noise Contour	National Harbor Manufacturing Plant	ACRP09-12NextGen-Leveraging Spatial Data
Upda	Montego Bay InterVISTAS	ACRP 02-56 Airport Bus. Case for Renewab
EVV-Evansville Noise Measurements	Waseca Solar	Dallas Love Field 2013 DNL Contours
Barnum Station Constn N&V Impact Assess	TRE Trinity River Bridge Replacement	Rush Line Corridor
Canyonlands Airport ALP Env. Assessment	Logan Terminal E Improvements	SAT Planning On-Call
Geronimo Vega	Unitel Mobil Substation Noise Assessment	Hanscom AFB Glare
Geronimo Pegasus	BLANS Runway Use Program	NHDOT On-call AQ & Noise Services
Geronimo Corvus	LGA and JFK TARGETS Processing	Black Oak Wind Shadow Flicker Update
Geronimo Capella	PANNYNJ Part 150 Study	US_460
Geronimo Antares	On-Call Env. Consulting-MWAA	LA/ONT NEM Update
Andersen & Funfar Zoning Case	Rt 15 Leesburg Noise Study Update	LAWA Planning Env. On-Call
Falmouth ZBA Application Support	Sunset City Sports Facility Peer Review	Lebanon Airport Tree Clearing EA
Western Sydney Airport DEIS Review	Cochin Int'l Airport Solar Glare Analysi	LAWA Environmental On-Call-Ninyo&Moore
Geronimo Energy Montevideo Solar Project	Vancouver Airfield & Airspace Modeling	AWD Phase III
Catawba Avenue Improvement	East Hampton Airport Solar	I-581/Valley View Blvd. NB Reevaluation
Huntersville N. Main St. Improvement	Nashville Solar	CLT InFLIGHT Support and On-Call
Peer Review-Diamond Cove Sound Assess	PBIA General Consulting	Durham NH Rte4 Bridge Noise Study
Metro Transit SWLRT N&V /Claremont Apart	OMP EIS Pre-Contract Travel Costs	Rivermont Apartments Noise Study
Centennial NEM Update	HTO 2017 Mid-Season	WRA/VDOT On-Call Environmental
Houston Metro On-Call	HTO 2016 Review	NYS DOT Noise Services Term Agree (Down)

All Aboard Florida/Independent Review	MAA On-call Acoustical Services	C&S/SAN Quieter Home Program Phs II
Colburn School vs LA Metro	Statewide MassDOT Task Orders	VHB/PVD EIS
NHDOT District V OBSI Year 6	VDOT Statewide Noise Abatement On-Call	San Carlos InFlight - Install and Support
NHDOT District V OBSSI Year 5	ACRP INM Accuracy for GA Aircraft	InFLIGHT / PlaneNoise Support 2019
NHDOT DistV Resurfacing	C&S/Houston Noise Mitigation Program	InFLIGHT / PlaneNoise Support 2018
ACRP 01-24 Renewables Energy	Jacobs/SFRTA GPC	Bell Helicopter InFLIGHT Support '17-'18
Cabot Beverly Airport Solar	NCHRP 25-34 Suppl. Guidance Appl. of TNM	Bell Helicopter InFLIGHT Install & Suppo
Logan Sustainability Master Plan	GLX Design Engineering Services	CLT InFLIGHT Support (8/5/15-8/4/16)
TradeWinds_MSA	Denver On-Call	APF InFLIGHT Services October-Sept '19
RIAC Sound Mitigation Program	FY 2019 Noise Abatement Consulting Svcs	APF InFLIGHT Services October-Sept '18
Shafter Airport Solar Glare Study	FY 2018 Noise Abatement Consulting Svcs	APF InFlight Services July '15-Sept '17
GTF NEM Update and RSIP Plan	FY 2017 Noise Abatement Consulting Svcs	CLT InFLIGHT Support (8/5/14-8/4/15)
Sturm Ruger Noise Report Review	FY 2016 Noise Abatement Consulting Svcs	Punta Gorda InFLIGHT Support 9/19-8/20
London Heathrow Hub Capacity Study	FXE Noise Abatement Consulting Services	Punta Gorda InFLIGHT Support 9/18-8/19
Woburn I93/Rt 128 Noise Study	VHB /Massport EDR & ESRP 2009 - 2012	Punta Gorda InFLIGHT Support 9/17-8/18
Aircraft Noise and Annoyance Survey	DART General Planning Consulting	Punta Gorda InFLIGHT Support 9/16-8/17
MARTA/Consulting Services	Centennial Airport NOMS Acquisition	Punta Gorda InFLIGHT Support 9/15-8/16
Witchduck Road Improvements	MPA On-Call Noise Consulting Services	Punta Gorda InFLIGHT Install/Support
STV/CATS Blue Line Extension Finl Design	SDF Noise Exposure Map Update	PANYNJ RCV2 Installation
BTV Part 150 NEM Update-2015	FLL/BCAD Acoustical Consulting Services Yr 5	APF InFlight Services July '13-June '15
BTV Part 150 NEM Update	FLL/BCAD Acoustical Consulting Services Yr 4	PTAA InFLIGHT FY20
CLE RSIP 2011-2014	FLL/BCAD Acoustical Consultant Services Yr 3	PTAA NOIARS FY19
East Colfax Transit AA & EA	FLL/BCAD Acoustical Consultant Services Yr 2	PTIA InFLIGHT & RCV2
Elbow Road Phase II	FLL/BCAD Acoustical Consultant Services Yr 1	RTAA RC for AEDT Services 7/1/18-6/30/19
Elbow Road 3 Addn'l Noise Barrier Areas	BCAD On-Call Acoustical Services '09-'12	RTAA RC for AEDT Services 7/1/17-6/30/18
FDOT Rail Relocation	I-10 West Phase II	RTAA RCV2 Software Support 7/1/16-6/17
NEC PRCIP	Cooper Stadium Racetrack Noise Study Rev	RTAA RCV2 Software Support 7/1/15-6/16
AEA_Susitna-Watana Hydroelectric Study	CA High Speed Rail Fresno to Merced	RNO RCV2 Software Support 7/1/14-6/30/15
Hawaii Aircraft Noise	AST/Launch Vehicles Acoustics	CLT FTMS 30-day trial
Talgo Measurements	DCTA Final Engineering Design	MNAA NoiseKit Support 4/1/14-3/31/15
MKE Noise Barrier Study	Louisville Residential SIP, Phs 1	MNAA InFLIGHT Support FY 7/17-6/20
East Hampton Seasonal Tower EA	Danbury Branch EIS	MNAA InFLIGHT Support FY 7/14-6/17
First Phase Use HTO Restriction Analysis	Oakland Noise On-Call	SAN/RC v2 Support 9/14-9/17
MassCEC Wind Noise On-Call	Central Broward DEIS	LAWA RC Support 1/1/16 - 12/31/18
Akron-Canton Airport Part 150 Update	SAN Part 150	LAWA RC Support 1/1/13 - 12/31/15
ATAC/FAA PEARS Bridge Contract	C&B/FasTracks	Massport/PF32 Maintenance
ATAC/FAA PEARS	FAA/Leesburg Airport EA	MAA Noisekit Support 2013-2016
Hanscom Noise Consulting Services 16-19	URS/FWTA EIS	Denver ARTSMap 2018-2020
Hanscom Noise Consulting Services 11-14	Reno-Tahoe Permanent NOMS	Denver ARTSMAP Support 2006-2017

HMMH Projected Projects

HMMH does not currently have any projects where we have been awarded a contract but the notice to proceed has not been issued. All awarded projects, as listed above, have notices to proceed.

6. Time and Budget Requirements

A firm of HMMH's size is always working on multiple projects simultaneously. In order to do so successfully, HMMH continuously monitors performance, cost, and schedule throughout the duration of a contract. Our Project Managers conduct reviews that focus on financial and schedule status to ensure that technical requirements are met in a timely and cost-effective fashion.

A large percentage of HMMH's aviation consulting is under on-call "as-needed" arrangements similar to this procurement. On-call arrangements provide flexible, timely, and cost-effective access to HMMH assistance in a diverse range of areas, and the ability to respond to unanticipated needs as they arise. A hallmark of HMMH's assistance to airports is establishment of a close partnership with the client; we see ourselves as an adjunct to staff. HMMH has a long standing relationship working closely with many of the partner firms included on this team. Due to our experience in working together we are confident in our ability to be the best environmental consulting team for BCAD.

HMMH assistance to airports under on-call arrangements has included, but not been limited to, noise measurement and modeling, Part 150 studies/updates and Noise Compatibility Program implementation, EA, EIS, and Master Plan noise environmental element implementation and compliances, litigation support, GIS support, comprehensive public outreach support, and sound insulation assistance.

HMMH offers the advantage of extensive experience obtained from more than 35 years of similar on-call assignments working in close collaboration with the selected firms included as part of this robust and capable team.

Approach to Meeting Time and Budget Requirements

At the outset of a project, the project manager (or her designee) will identify the specific Quality Control (QC) process(es) and document the same for the project records. HMMH Quality Assurance (QA) Policy anticipates that at minimum this would include identification of the QC manager for the project. The varied nature and complexity of HMMH projects are such that delineating a prescriptive "one size fits all" approach to all project QC measures in the QA policy document is not feasible nor appropriate.

Consistent with industry best practices, contractual requirements, and HMMH standard processes, larger projects often have project management plans (PMP) or similar documents (e.g., study protocol or other similar names) outlining the standard processes to be undertaken (kickoff meeting, literature review, data collection, analysis, results reporting, recordkeeping) and deliverables for a specific project. Often, the project-specific QC process is documented at a high level in the PMP and a subsidiary QC document is developed detailing the specific control measures to be employed on a project. On other projects, this level of effort is neither budgeted nor appropriate; however, the requirement for a project manager to deliver quality remains unchanged.

The QC process, therefore, generally entails a QC manager working on behalf of a project manager, to ensure that a project-specific QC plan of appropriate detail is developed and followed. Whether large or small in value, simple or complex, HMMH policy is premised on the idea that consistent adherence to standards (e.g., checklists, style guides) enforced by reviewers is the best method to prepare work product consistently, at the expected (and high) levels of quality BCAD expects.

In general, the control measures used to ensure QC on a HMMH project will involve:

- Standard recordkeeping measures (e.g., standardized file naming conventions, network directory storage naming, organizational structure, etc.).

- Clear identification of project roles and responsibilities (i.e. project manager, document author, QC Manager, QC Reviewer). This could be communicated to the project team through an internal project kickoff meeting, dissemination of a Project Management Plan or other documented communication approach.
- Identification and use of appropriate checklists for modeling software, geo-spatial analyses, and similar analytical processes.
- Identification and use of appropriate style guides for documentation.
- Standard measures for comment-response development, adjudication/resolution, cataloguing, and ensuring revised products reflect same.
- Standard practices for internal and client meeting management, including development and distribution of agenda prior to a meeting, capturing of minutes to include action items and assignments, and distribution/file storage of agenda and minutes to participants and the project files.
- QC verification, ensuring internal reviews of deliverables are occurring and that deliverables are complete, conform to project standards, and meet expectations outlined in the project QC plan.
- QA audits and periodic sampling of deliverables by leadership to verify that appropriate QC measures have been developed and followed.

7. Volume of Previous Work

Over the past five years, HMMH has received \$506,839 from Broward County Board of County Commissioners for the work we have performed under our existing noise on-call contract. Please see the Volume of Previous Work Attestation Form as submitted through BidSync as part of our online submittal.

Appendix A: Resumes



Mary Ellen Eagan

President, Chief Executive Officer, and Chairman

Experience

1984-present, HMMH

Education

B.S., Operations Research & Industrial Engineering, Cornell University, Ithaca, NY
1984

M.B.A., Simmons College, Boston, MA 2002,
magna cum laude

Affiliations

Vice-Chair, Airports Council International
North America (ACI-NA) Noise Working
Group

Appointed Member, Airports Council
International World Environment Standing
Committee

ACI Observer, ICAO Committee on Aviation
Environmental Protection (CAEP)

Past Chair, Transportation Research Board
Aviation Group

Past Board Chair, Airport Consultants
Council (ACC)

Past Chair, ACC Environmental Committee

As President, CEO and Chairman of the Board of Directors of HMMH, Mary Ellen is responsible for providing strategic leadership for the company and management to establish long-term goals, strategies, plans, and policies. Ms. Eagan became HMMH's third President in July 2004 and was appointed CEO and Chairman in 2012.

In addition to her corporate responsibilities, Ms. Eagan is principal-in-charge for some of the firm's most challenging projects, including Part 150 Noise Studies for the Port Authority of New York and New Jersey and support to the Federal Interagency Committee on Aircraft Noise.

Ms. Eagan is very active in the industry. She is past-Chair of the Transportation Research Board's Aviation Group, and Board Chair of the Airport Consultants Council. She is also actively involved with Airports Council International, serving as vice-chair of the Noise Working Group and a Business Partner to the ACI World Environment Standing Committee.

Ms. Eagan holds a B.S. in Engineering from Cornell University and an MBA from Simmons College.

Ms. Eagan's current assignments include:

- FAR Part 150 Noise Studies at Newark Liberty International Airport and Teterboro Airport (2015-present), *Program Manager*
- On-call noise consulting, Rhode Island Airport Corporation (2005-present), *Principal-in-Charge*
- On-call consulting to the Palm Beach County Department of Airports (1999-present), *Principal-in-Charge*
- On-call consulting to the Maryland Department of Transportation Maryland Aviation Administration (1998-present), *Principal-in-Charge*
- On-call consulting to the Massachusetts Port Authority (1984-present), *Principal-in-Charge*

Representative Publications and Presentations

- *Successful Noise Management Experiences Around the World*, ACI-AAAE Airport Noise Conference (October 2019)
- *Shake, Rattle, and Roll*, ACC-AAAE Airport Planning and Design Symposium (February 2019)
- *White Paper – Proposed Supersonic Aircraft and Related Noise Issues*, January 2019
- "Airport noise and performance-based navigation: A force for good or evil?", *Journal of Airport Management*, Volume 12 / Number 4 / Autumn/Fall 2018, pp. 359-369(11)
- *White Paper – 2018 FAA Reauthorization Noise Provisions*, October 2018
- *Noise and Communities*, ATAG Global Sustainable Aviation Summit, October 2018
- *Assessing Aircraft Noise Conditions Affecting Classroom Behaviors*, Internoise 2018
- *Overview of WHO Evidence Review Report on Noise Annoyance* TRB Annual Meeting, ADC40/AV030 Aircraft Noise and Vibration Subcommittee Meeting (January 2018).
- *TRB Airport Cooperative Research Program (ACRP) Web-Only Document 34: Assessing Aircraft noise conditions affecting Student Learning – Case Studies* (November 2017).

Mary Ellen Eagan, President, Chief Executive Officer, and Chairman

“The industry has always needed ways to make the scientific findings about aircraft noise more understandable to the public and to courts. My hat is off to Mary Ellen for taking the time to think this through and try some objective approaches to mapping noise effects.”

– Burr Stewart (retired), Port of Seattle

- *Geothermal and Biomass Case Studies* ICAO Seminar on Green Airports (October 2017).
- *Noise Abatement: A New Model for Community Involvement* ACI-NA/AAAE Airport Board & Commissioners Conference (April 2017).
- *Community Roundtables* ACI-NA Airports @ Work Conference (March 2017).
- *Role of Airports in NextGen Implementation* Florida Airports Council (June 2016).
- *Flight Procedures and Noise: What’s the latest?* ACI-NA Airports @ Work Conference (April 2016).
- *US Federal Aviation Administration Research Roadmap* Aircraft Noise Non-Acoustic (ANNA) Meeting (November 2015).
- *Social License to Operate* ACI Annual Conference Environmental Seminar (October 2015).
- *Assessing Aircraft Noise Conditions Affecting Student Achievement – Case Studies (ACRP 02-47)* Inter-Noise (August 2015).
- *FAA and ICAO – How do they coexist?* ACC/AAAE Airport Planning, Design and Construction Symposium (February 2015).
- *Implementation of Performance Based Navigation: Case Studies* ACI World Environment Standing Committee (December 2014).
- *Introduction to Aviation Opportunities* Transportation Research Board (May 2014).
- *Critical Issues in Aviation and the Environment 2014*, Transportation Research Board Circular, E-C184 (April 2014).
- *Health Impacts of Aircraft Noise and Emissions* UC-Davis Noise and Air Quality Symposium (February 2014).
- *Transportation Research Board Committee on Environmental Impacts of Aviation (AV030): Critical Issues in Aviation and the Environment* ACI-NA Environmental Affairs Conference (September 2013).
- *Implementing Performance Based Navigation Procedures at US Airports: Improving Community Noise Exposure* Inter-Noise (September 2013).
- *Environmental review of NextGen implementation* Washington Airport Management Annual Conference (May 2013).
- *There’s an app for that! Tools and technology for addressing aircraft noise issues* ACI Environmental Affairs Conference (May 2013).
- *TRB Airport Cooperative Research Program (ACRP) Synthesis 16: Compilation of Noise Programs in Areas Outside DNL 65* (August 2009).
- *Transportation Research Record: Journal of the Transportation Research Board, “Supplemental Metrics to Communicate Aircraft Noise Effects”,* Volume 2011, 2007.
- *Relation between Aircraft Noise Reduction in Schools and Standardized Test Scores*, Federal Interagency Committee on Aviation Noise (February 2004).



Rhea A. Gundry Principal Consultant

Experience

2009-present, HMMH

2009, Guided Discoveries (Physics
Instructor)

Education

B.S., Physics, Ithaca College, NY, 2009

Affiliations

Member, Society of Physics Students, Ithaca
Chapter, 2005-2011

Member, American Physics Society, 2005-
2011

Member, Southwest Chapter of the
American Association of Airport Executives
(SWAAAE), 2013-2019

Airport Consultants Council
Young Professionals Forum
Chair, 2019/2020
Vice-Chair, 2018/2019

Rhea Gundry joined HMMH in 2009 with a strong background in math and physics. She oversees a wide range of aviation noise consulting projects involving system-wide studies and comprehensive environmental documents. Rhea manages projects that have included noise modeling analysis for airports, aviation noise field measurements, and technical support to community noise forums and roundtables. She has provided technical assistance on a variety of projects by performing aircraft noise measurements and analysis, radar data analysis, and aircraft noise modeling.

As a Principal Consultant, Rhea manages a wide variety of environmental noise and air quality projects with an emphasis on aviation noise and National Environmental Policy Act (NEPA) documentation. Her experience ranges from public outreach and community engagement to modeling programs involving comprehensive aircraft noise challenges.

Representative Projects

Aviation Projects

On-Call Noise Consulting

- On-call Acoustical Consulting Services and 14 CFR part 150 Noise Exposure Map Update, Maryland Department of Transportation Maryland Aviation Administration, Baltimore/Washington International Thurgood Marshall Airport, Baltimore, MD (2017-present), *Project Manager*
- On-call Acoustical Consulting Services, Sacramento County Department of Airport, Sacramento, CA (2018-present), *Project Manager*
- On-call Acoustical Consulting Services, Broward County/Fort Lauderdale-Hollywood International Airport, Fort Lauderdale, FL (2009 - present), *Project Manager (since 2017)*
- On-Call Acoustical Consulting Services, Oakland International Airport, Oakland, CA (2009-present), *Assistant Project Manager, Operations Analysis, Noise Analysis, Noise Modeling and Report Developer, Project Manager (since 2016)*

14 CFR Part 150 Noise Compatibility Planning Studies

- 14 CFR Part 150 Noise Study, Port Authority of New York and New Jersey, Newark-Liberty International Airport, Newark, NJ (2015 – present), *Assistant Project Manager*
- 14 CFR Part 150 Noise Exposure Map Update, Fresno-Yosemite International Airport, Fresno, CA (2015-2018), *Project Manager*
- 14 CFR Part 150 Noise Exposure Map Update, Centennial Airport, Englewood, CO (2015-2016), *Project Manager*
- 14 CFR Part 150 Noise Study Ontario International, Ontario, CA (2014-2015), *Assistant Project Manager*
- 14 CFR Part 150 Noise Study Great Falls International, Great Falls, MT (2013 – 2015), *Assistant Project Manager*
- 14 CFR Part 150 Noise Study San Antonio International Airport, San Antonio, TX (2013-2014), *Assistant Project Manager*
- 14 CFR Part 150 Update Study, Nashville International, Nashville, TN (2011), *Operations Analysis and Report Developer*
- 14 CFR Part 150 Noise Study, Louisville International Airport, Louisville Regional Airport Authority, Louisville, KY (2009-2011), *Report Developer*
- Jackson-Evers International Airport Part 150, Jackson, MS (2010), *Noise Measurements and Modeling*

Rhea A. Gundry, Principal Consultant

Other Noise Studies

- Partnership for Quieter Skies Quarterly Reports, Broward County/Fort Lauderdale-Hollywood International Airport, Fort Lauderdale, FL (2009-2016), *Assistant Project Manager, Noise Analysis and Report Developer*
- Noise Monitoring and Flight Tracking System, Centennial Airport, Arapahoe County Public Airport Authority, Englewood, CO (2010-2015), *Noise Analysis and Report Developer*
- Aircraft Noise Comparison, Truckee-Tahoe Airport, Truckee, CA (2015 & 2017), *Noise measurements, analysis and report development*
- Ground Noise Study, General Mitchell International Airport, Milwaukee, WI (2013-2014), *Noise Modeling and Analysis*
- Land Acquisition and Relocation Assistance for Airport Improvement Program (AIP) Assisted Projects, U.S. Department of Transportation, Federal Aviation Administration (2012-2013), *Report Support*
- Ground Noise Study, Los Angeles International Airport, Los Angeles, CA (2012-2013), *Noise Measurements, Modeling and Analysis*
- National Park Dose-Response Data Collection, Grand Canyon National Park, Bryce Canyon National Park, Zion National Park, Glacier National Park (2011), *Acoustic Monitoring and Support, On-Site Noise Measurements and Logging*
- T.F. Green Airport Improvement Program, Providence, RI (2011), *Noise Study, Operations Analysis and Report Support*
- Analysis of Proposed RNAV Procedures at Denver International Airport, City and County of Denver, CO (2010), *Flight Track Analysis*
- Reno-Tahoe NOMS Assistance, Reno-Tahoe International Airport, Reno-Tahoe Airport Authority, Reno, NV (2010), *Noise Modeling*

Environmental Assessment or Impact Studies

- LaGuardia Airport Access Improvement Project, Environmental Impact Statement, Port Authority of New York and New Jersey (2019-present), *Public Outreach Support*
- Terminal 8 Improvements project at John F. Kennedy International Airport, Short Environmental Assessment Form, Port Authority of New York and New Jersey (2019), *Project Manager*
- Chicago O'Hare International Airport Fly Quiet Program, Environmental Impact Statement, Chicago, IL (2019), *Public Meeting Assistance*
- Re-Evaluation of the O'Hare Modernization Environmental Impact Statement, Chicago, IL (2015), *Public Meeting Assistance*
- Optimization of Airspace and Procedures in the North Texas Metroplex, Environmental Assessment, Dallas/Fort Worth Metropolitan area (2012-2014), *NIRS Technical Lead*
- Proposed RNAV/RNP Procedures Environmental Assessment, Chicago Midway, Chicago IL (2012-2013), *NIRS Technical Lead*
- Environmental Assessment for "Greener Skies Over Seattle"; Proposed Arrival Procedures to Seattle-Tacoma International Airport, Seattle WA (2011-2012), *Noise Technical Lead*
- Environmental Impact Report/Noise Study, California High Speed Rail, Merced-Fresno, CA (2010), *Noise Measurements*
- Southern Nevada Supplemental Airport Environmental Impact Statement, McCarran International Airport, Henderson Executive Airport, and North Las Vegas Airport, Nevada (2010), *Noise Modeling*
- Runway Extension Environmental Assessment, Unalaska Airport, Unalaska, AK (2010), *Noise Modeling and Report Developer*

Rhea A. Gundry, Principal Consultant

Master Plan Studies

- Noise and Air Quality Study for Montgomery-Gibbs Airport and Brown Field Airport Master Plans, The City of San Diego, San Diego, CA (2017-2018), *Project Manager*
- Noise and Air Quality Study for Eugene Airport Master Plan, Eugene, OR (2016-2018), *Project Manager*
- Jackson-Evers International Airport Master Plan, Jackson, MS (2010), *Noise Measurements and Modeling*

Helicopter Noise Analyses

- Bell Helicopter Noise Study and Complaint Management, Fort Worth, TX, (2017-2019), *Project Manager*
- Helicopter Noise Information for Airports and Communities, A Synthesis of Airport Practice, ACRP Synthesis 76, (2016), *Expert review panel member*
- LA Basin Helicopter Annoyance Study, Los Angeles, CA (2015-2016), *Noise Measurements*
- University of California Helipad Noise Study, San Francisco, CA (2012), *Noise Measurements and Modeling*

Litigation Support

- Litigation Support, Briggs v City of Palmer Airport Noise Assessment, Palmer, AK (2011), *Noise Measurements*

Residential Sound Insulation Program

- Airport Sound Insulation Programs, George W. Bush Intercontinental, Houston, TX (2016), *Noise Measurements*
- Airport Sound Insulation Programs, Tulsa International Airport, Tulsa, OK (2010-2013), *Noise Measurements*
- Residential Sound Insulation Program, Los Angeles International Airport, Inglewood, CA (2011-2012), *Noise Measurements and Analysis*
- Quieter Homes Sound Insulation Program, San Diego International Airport, San Diego County Regional Airport Authority, San Diego, CA (2009-2012), *Noise Measurements, Noise Analysis and Report Developer*
- Residential Sound Insulation Program, Louisville International Airport, Louisville Regional Airport Authority, Louisville, KY (2009-2010), *Noise Analysis and Report Developer*

Surface Transportation

- Noise Barrier Inventory, New York State Department of Transportation, New York, NY (2010), *Assistant Project Manager, GIS Measurements*

Representative Publications and Presentations

- “Airport noise and performance-based navigation: A force for good or evil?”, *Journal of Airport Management*, Autumn/Fall 2018 Volume 12 Number 4, An International Journal Published in association with Airports Council International



Katherine B. Preston, ENV SP

Principal Consultant

Experience

2017-Present, HMMH
2011-2017, Airports Council International – North America (ACI-NA)
2007-2011, The Boeing Company
2005-2007, International Air Transport Association (IATA)

Education

Master of Science, Environmental Sciences and Policy, The Johns Hopkins University, Krieger School of Arts & Sciences, Washington D.C., 2012
Bachelor of Arts, Political Science (concentration in International Relations) University of Florida, Gainesville, FL, 2003
Global Reporting Initiative G4 Sustainability Reporting Guidelines Certified Training Course and GRI G4 Exam (May 2016)
Envision Sustainability Professional (ENV SP) from the Institute of Sustainable Infrastructure, July 2017
Greenhouse Gas Protocol Corporate Accounting and Reporting Standard Training September 2017

Awards

Recognized in Airport Business Magazine's 2014 "Top 40 Under 40" of airport professionals

Industry and Community Involvement

Transportation Research Board Environmental Impacts of Aviation Committee Member (2016 – Present)
American Association of Airport Executives Environmental Services Committee, Climate Topic Leader (2017 – Present)
Sustainable Tallahassee President, Board of Directors (2018) Member Since 2015

Katherine Preston brings extensive experience in environmental policy and government affairs, with a passion for sustainability and proven project management skills. Throughout her career, Katherine has demonstrated exceptional organizational abilities, enthusiastic collaboration with diverse stakeholders, and effective communication with clients, government officials and industry peers.

Ms. Preston currently leads HMMH's Sustainability and Energy Practice, serving a wide range of clients. She manages multiple concurrent projects that involve extensive stakeholder engagement activities. She has managed traditional environmental review projects, renewable energy feasibility studies, federal research projects for the Transportation Research Board, developed regulatory guidance, and community outreach tools. Ms. Preston is an active member of several industry trade associations. In her prior role as Senior Director, Environmental Affairs at the Airports Council International – N. America, Ms. Preston managed environmental policy, regulatory affairs and sustainability for the organization, representing over 350 U.S. and Canadian airports. Ms. Preston managed projects involving hundreds of participants through the ACI-NA Environmental Affairs Committee and technical working groups. In addition, while at ACI-NA she formed strategic partnerships with the U.S. Green Building Council (USGBC) and Institute for Sustainable Infrastructure (ISI) to collaborate ways to facilitate the use of USGBC's LEED and ISI's Envision infrastructure sustainability rating system in the airport industry. Ms. Preston also oversaw the implementation of the Airport Carbon Accreditation program in the U.S. and Canada from 2014-2017.

Representative Projects

- Massachusetts Port Authority Sustainability Rating System Report, Massport, Boston, MA. (2019-Present), *Principal-in-Charge and Project Manager*
- ACRP 11-02 / Task 32: Research Roadmap in Airport Environmental, National Academy of Sciences, Washington, DC (2017-Present), *Stakeholder Outreach*
- ACRP 02-83: Measuring Quality of Life in Communities Surrounding Airports, National Academy of Sciences, Washington, DC (2017-Present), *Principal-in-Charge and Project Manager*
- ACRP 02-82: Advancing Airport Transportation to Achieve Zero-Emissions Status, The Cadmus Group, Inc., Washington, DC (2017-Present), *HMMH Project Manager and Stakeholder Engagement*
- L.G. Hanscom Field 2017 Environmental Status & Planning Report (ESPR), Massachusetts Port Authority, Boston MA (2017-present), *Project Manager, Sustainability Lead*
- Philadelphia International Airport Energy and Emissions Reduction Strategic Plan, City of Philadelphia Division of Aviation, Philadelphia, PA (2017-2019), *Lead for Renewable Energy and Funding Strategy, Support Stakeholder Engagement*
- Phoenix Sky Harbor International Airport Sustainability Management Plan Update, City of Phoenix Aviation Department, Phoenix, AZ (2017-2018), *Technical Support for Resiliency and Electric Vehicles*
- St. Louis Lambert International Airport Voluntary Airport Low Emissions (VALE) grant application, City of St. Louis, MO (2017-2018), *Project Manager*
- Community Roundtable at Baltimore/Washington Thurgood Marshall Airport, Maryland Department of Transportation Maryland Aviation Administration, Baltimore, MD (2017-present), *Stakeholder Engagement and Technical Support*

Katherine B. Preston ENV SP, Principal Consultant

- ACRP 02-76: Optimizing the Use of Electric Pre-Conditioned Air (PCA) and Ground Power Systems at Airports, Airport Cooperative Research Program, Washington, DC (2017-present), *Principal Investigator and Project Manager*
- ACRP 11-02 / Task 29: Research Roadmap in the Area of Airport Operations and Maintenance, Airport Cooperative Research Program, Washington, DC (2017-2018), *Principal Investigator and Project Manager*
- ACRP 11-02 / Task 30: Research Roadmap in the Area of Airport Design and Construction, Airport Cooperative Research Program, Washington, DC (2017-present), *Principal Investigator and Project Manager*
- ACRP 11-05 / Task 05: Exploring Tactical Approaches to Facilitate Implementation of ACRP Research Results, Airport Cooperative Research Program, Washington, DC (2017-2018), *Airport Industry Advisor*
- ACRP 11-05 / Task 01: Dissemination of ACRP Research Results, Airport Cooperative Research Program, Washington, DC (2017- present), *Airport Industry Advisor*

Ms. Preston's experience prior to joining HMMH includes the following:

ACRP Projects

In her prior role as Senior Director of Environmental Affairs at Airports Council International, Ms. Preston served as a panel member on the following Airport Cooperative Research Projects.

- ACRP 02-28: Airport Sustainability Practices: Tools for Evaluating, Measuring, and Implementing
- ACRP 02-30: Enhancing the Airport-Industry Sustainable Aviation Guidance Alliance (SAGA) Website
- ACRP 02-39: Applying Whole Effluent Toxicity Testing to Airport Deicing Runoff
- ACRP 02-42: Understanding Air Quality and Public Health Studies
- ACRP 02-46: Improving Ground Support Equipment Operational Data for Airport Emissions Modeling
- ACRP 02- 51: Evaluating Methods for Determining Interior Noise Levels Used in Airport Sound Insulation Programs
- ACRP 02-53: Interpreting Airport Water Monitoring Results
- ACRP 02-56: Developing a Business Case for Renewable Energy at Airports
- ACRP 02-61: Airport Stormwater Management Electronic Resource Library and Training Materials
- ACRP 02-69: Integrating Airport Sustainability and the NEPA process
- ACRP 03-33: NextGen - Airport Planning & Development
- ACRP 09-08: Balancing Airport Stormwater and Wildlife Hazard Management: Analysis Tools and Guidance
- ACRP 09-10: Methodology to Develop the Airport Terminal Building Energy Use Intensity (ATB-EUI) Benchmarking Tool
- ACRP 02-71: Update Deicing Planning Guidelines for Airport Stormwater Management Systems and Alternative Deicing / Anti-Icing Formulations
- ACRP Synthesis 11-02: Developing Environmental Problem Statements
- ACRP Synthesis 11-03 / S15-02-14: Airport Sustainability Practices
- ACRP Synthesis 11-03 / S02-12: Airport Sustainability Practices-Drivers and Outcomes for Small Commercial and General Aviation (GA) Airports
- ACRP Synthesis 11-03 / S02-11: Lessons Learned from Airport Sustainability Plans

Katherine B. Preston ENV SP, Principal Consultant

Airports Council International – North America (ACI-NA), Washington DC, Senior Director, Environmental Affairs

As Senior Director, Environmental Affairs Ms. Preston managed environmental policy, regulatory affairs and sustainability for the largest airport trade association in North America, representing over 350 U.S. and Canadian airports and aviation-related companies. In this role, Ms. Preston developed and implemented advocacy and engagement strategies to promote the interests of airports with the federal government and the international aviation community. Ms. Preston represented ACI-NA and its members on a number of industry committees, federal advisory committees, and a working group of the International Civil Aviation Organization's (ICAO) Committee on Aviation Environmental Protection (CAEP). She programmed multiple annual technical conferences and was a speaker at a wide range of external meetings and events. She was also instrumental in developing the ACI-NA Sustainable Conference Guidelines and Environmental Goals.

The Boeing Company, Arlington, VA, Governmental Affairs Specialist

Ms. Preston served as a Governmental Affairs Specialist for environmental, sustainable fuels, commercial aviation and international trade issues. Ms. Preston identified and analyzed federal regulatory and legislative activities that had an impact on the world's largest airplane and airframe manufacturer. In this role, she broadened Congressional support for priorities through the development of position papers, reports and presentations; coordinated grassroots lobbying efforts; represented the company in various coalitions and trade associations; and designed and supervised a work program for college interns.

International Air Transport Association (IATA), Washington, D.C., Assistant Manager, Government Affairs / Congressional Liaison

As Assistant Manager, Government Affairs, Ms. Preston represented over 250 airline members before Members of Congress and their staff. Ms. Preston analyzed federal legislation and regulatory actions to determine impacts to members and develop advocacy strategies. She coordinated with IATA governmental affairs staff globally, to advance global policy objectives



Bradley L. Nicholas Principal Consultant

Experience

2001-Present, HMMH
1998-2001, Atlee High School

Education

M.Eng., Acoustics, Pennsylvania State University, State College PA, 2014
M.A., Education, College of William & Mary, Williamsburg VA, 1999
B.A., Physics, Franklin & Marshall College, Lancaster PA, 1997

Affiliations

Member, Institute of Noise Control Engineering, 2007-present

Brad Nicholas leads projects that include on-call airport noise support, 14 CFR Part 150 studies, National Environmental Policy Act (NEPA) studies, public outreach, and aviation noise field measurements and data processing. He provides the technical lead on a variety of projects by performing airline fleet analysis, aircraft noise measurements and analysis, radar data analysis, and aircraft noise modeling. He is an experienced user of the Federal Aviation Administration's airport and airspace noise, emissions, and fuel burn model, the Aviation Environmental Design Tool (AEDT), and the lead instructor for HMMH's AEDT and Airport Noise Control Practices courses. Additionally, he has completed many detailed acoustical modeling projects using Braunstein + Berndt's SoundPLAN.

Mr. Nicholas' recent experience includes extensive analyses of airport ground noise issues at Philadelphia International Airport, Vancouver International Airport, Boston Logan International Airport, Tweed New-Haven Airport, T. F. Green State Airport, General Mitchell International Airport, Port Columbus International Airport, and Reid Hillview Airport. As part of these analyses, he conducted community noise measurements of aircraft operations and aircraft source spectral and directivity measurements. He evaluated existing ground noise conditions as well as proposed alternatives involving taxiway improvements, revised aircraft fleet, optimal aircraft orientation and placement, and barrier construction using SoundPLAN, the AEDT, and custom spreadsheet noise models. He analyzed community survey data to probe public perceptions of airport ground noise and evaluate the acceptability of various abatement and mitigation measures.

Mr. Nicholas has earned degrees in physics, education, and acoustics and received additional training in Microsoft Structured Query Language (SQL) and noise control engineering. Prior to joining HMMH, he taught high school physics in Virginia.

Representative Projects

14 CFR Part 150 Studies

- Update, Sikorsky Memorial Airport, Bridgeport, CT (2019-present), *Project Manager*
- Update, Portsmouth International Airport at Pease, Portsmouth, NH (2014), *Project Manager*
- Update, San Diego International, San Diego, CA (2008), *Noise Measurements, Soundscape Measurement and Audio Processing*
- Update, Manchester Airport, Manchester, NH (2004), *Noise Modeling*
- Update, Lehigh Valley International, Allentown, PA (2002), *Noise Technical Lead*
- Fort Lauderdale International, Fort Lauderdale, FL (2002), *Noise Modeling*
- Bradley International, Windsor Locks, CT (2001), *Noise Modeling*

Airport Ground Noise Modeling Projects

- Comprehensive Ground Noise Assessment, Seattle-Tacoma International, SeaTac, WA (2019-present), *Project Manager*
- Cargo Facility EA, Philadelphia International, Philadelphia, PA (2019-present), *Project Manager*
- Ground Noise Analysis, Philadelphia International, Philadelphia, PA (2019), *Project Manager*
- Ground Noise Analysis, Louisville International, Louisville, KY (2018), *Project Manager*
- Tree Removal Noise Study, Seattle-Tacoma International, SeaTac, WA (2017),

Bradley L. Nicholas, Principal Consultant

Project Manager

Mr. Nicholas assisted with a first-of-its-kind tool for San Diego International Airport to communicate the benefits of its residential sound insulation program to homeowners. He recorded and processed the ambient and aircraft sounds for the tool. "It was great to listen to an aircraft in the final demonstration and be able to switch instantly between indoors and outdoors or from before to after sound insulation and have it sound right."

- Runway End Safety Area Noise Analysis, Vancouver International, Richmond, BC (2017), *Project Manager*
- Tree Removal EA, Dillant-Hopkins, Keene, NH (2016), *Project Manager*
- Noise Barrier Feasibility Study, Tweed-New Haven, New Haven, CT (2016), *Project Manager*
- Terminal E Modernization EA, Logan International, Boston, MA (2016), *Noise Measurements and Modeling*
- Run-up Study, Vancouver International, Richmond, BC (2015), *Project Manager*
- Noise Barrier Study, General Mitchell International, Milwaukee, WI (2015), *Project Manager*
- Ground Run-up Enclosure EA, Los Angeles International, Los Angeles, CA (2013), *Noise Modeling*
- Cargo Facility Relocation Analysis, T.F. Green State, Providence, RI (2006, 2009), *Noise Modeling*
- Construction Noise Evaluation, Philadelphia International, Philadelphia, PA (2007), *Noise Measurements*
- Taxiway Noise Study, Reid Hillview, San Jose, CA (2006), *Noise Modeling*
- Ground Run-up Study, Port Columbus International, Columbus, OH (2005), *Noise Measurements*
- Taxiway Noise Study, Logan International, Boston, MA (2004), *Noise Modeling*
- Barrier Design Study, Logan International, Boston, MA (2003), *Noise Modeling*
- Ground Noise Study, General Mitchell International, Milwaukee, WI (2002), *Noise Measurements and Modeling*

National Environmental Policy Act (NEPA) Studies

- Runway Reconstruction EA Noise Analysis, Kahului, Kahului, HI (2019-present), *Project Manager*
- Terminal Replacement EA Noise and Air Quality Analysis, Trenton-Mercer, Trenton, NJ (2019-present), *Project Manager*
- Airport Layout Plan Update EA Noise Analysis, Canyonlands Field Airport, Moab, UT (2015-2016), *Project Manager*
- Runway Extension EA Noise Analysis, Watertown International Airport, Watertown, NY (2013), *Project Manager*
- EA for the North Texas Optimization of Airspace and Procedures in the Metroplex (NTx OAPM) project, Federal Aviation Administration (2012), *Noise Modeling*
- Runway Safety Area EA Noise Analysis, Rocky Mountain Metro Airport, Broomfield, CO (2011), *Project Manager*
- Southern Nevada Supplemental Airport EIS, Ivanpah Valley, NV (2010), *Noise Modeling*
- Runway Extension EA Noise Analysis, Unalaska Airport, Unalaska, AK (2010), *Project Manager*
- New Training Runway EA Noise Analysis, Pueblo Memorial, Pueblo, CO (2009), *Project Manager*
- Runway Rehabilitation and Extension EA Noise Analysis, Portland International, Portland, OR (2008), *Noise Modeling*
- Commercial Launch Facility EA Noise Analysis, Brazoria County, TX (2006), *Project Manager*
- Runway Extension EIS, Philadelphia International, Philadelphia, PA (2005), *Flight Noise Measurements*
- Runway Extension EA, Erie International, Erie, PA (2005), *Flight Noise*

Bradley L. Nicholas, Principal Consultant

Measurements and Modeling

- Airside EIS, Logan International, Boston, MA (2002), *Noise Modeling*
- Runway Extension EA/EIR, Pittsfield Municipal, Pittsfield, MA (2001), *Flight Noise Measurements*

Other Aviation Noise Studies

- Master Plan Noise Analysis, Tweed New Haven, New Haven, CT (2019-present), *Project Manager*
- Master Plan Operations Analysis, Norfolk International, Norfolk, VA (2019), *Project Manager*
- Master Plan Noise Analysis, Trenton-Mercer, Trenton, NJ (2018), *Project Manager*
- Penn Presbyterian Medical Center Helicopter Noise Review, Philadelphia, PA (2019), *Project Manager*
- Environmental Status and Planning Report, Hanscom Field, Bedford, MA (2019), *Noise Technical Lead*
- Noise and Operations Monitoring System Specification, Logan International, Boston, MA (2018), *Project Manager*
- Noise and Operations Monitoring System Specification, Raleigh-Durham International Airport, Morrisville, NC (2018), *Project Manager*
- PBN Noise Study, Logan International, Boston, MA (2016-present), *Project Manager*
- Noise and Operations Monitoring System Specification, BWI Marshall, Baltimore, MD (2016), *Analyst*
- Quarterly Noise Reports Template Development and Support, BWI Marshall, Baltimore, MD (2018), *Project Manager*
- Review of Nextgen Procedures, BWI Marshall, Baltimore, MD (2016), *Analyst*
- Noise Exposure Contours for Toronto-Pearson International Airport, Toronto, ON, (2018), *Project Manager*
- National Annoyance Survey for FAA (2017), *Analyst*
- Airport Cooperative Research Program Study of Noise Effects on Student Learning (2014-2018), *Noise Technical Lead*
- Community Noise Measurements Reports, BWI Marshall, Baltimore, MD (2018), *Project Manager*
- On-Call Noise Support, Hanscom Field, Bedford, MA (2006-present), *Project Manager*
- Helicopter Noise Annoyance Study for FAA (2018), *Project Manager*
- LA Basin Helicopter Annoyance Study (2016), *Noise Analysis*
- Sound Insulation Spectrum Evaluation for FAA (2016), *Noise Analysis*
- Sound Insulation Program, Louisville International Airport, Louisville, KY (2016), *Measurements*
- Sound Insulation Program, T.F. Green Airport, Warwick, RI (2015), *Measurements*
- NCHRP 25-34, "Supplemental Guidance on the Application of FHWA's Traffic Noise Model (TNM)," Research and Guidance Document Development (2014), *Noise Modeling*
- Environmental Status and Planning Report, Hanscom Field, Bedford, MA (2013), *Noise Technical Lead*
- Airport Cooperative Research Program Study of INM Accuracy for General Aviation Aircraft (2013), *Noise and Statistical Analysis*
- Residential Sound Insulation Program Support, BWI Marshall, Baltimore, MD (2012), *Community Outreach*

Bradley L. Nicholas, Principal Consultant

- Review of Nighttime Noise Regimes Contours for Toronto-Pearson International Airport, Toronto, ON, (2012), *Noise Technical Lead*
- Annual Noise Contours, Raleigh-Durham International Airport, Morrisville, NC (2011, 2012), *Project Manager*
- National Parks Acoustic Monitoring, Grand Canyon, AZ (2011), *Aircraft Noise Measurements*
- Airport Noise Exposure Software Development, Hanscom Field, Bedford, MA (2011), *Project Manager*
- Study of Aviation Noise and Sleep Disturbance for FICAN (2010), *Statistical Analysis*
- Regional Airport System Plan Analysis Update Noise Analysis, San Francisco Bay Area, CA (2009), *Project Manager*
- Sound Insulation Program, San Diego International, San Diego, CA (2009), *Measurements*
- Noise Contour Update, Bellingham International, Bellingham, WA (2008), *Project Manager*
- Noise Mitigation Study, Beijing Capitol International, Beijing, PRC (2008), *Noise Modeling*
- Airport Master Plan Noise Analysis, Stockton Metropolitan, Stockton, CA (2008), *Project Manager*
- Commercial Launch Noise and Sonic Boom Study, Office of Commercial Space Transportation, Washington, DC (2008), *Research*
- Soundscape Kiosk, San Diego International Airport, San Diego, CA (2007), *Soundscape Measurement and Audio Processing*
- Floatplane Noise Study, Willow, AK (2007), *Project Manager*
- Environmental Status and Planning Report Noise Analysis, Hanscom Field, Bedford, MA (2006), *Project Manager*
- 14 CFR Part 161 Study, Van Nuys Airport, Van Nuys, CA (2006), *Helicopter Noise Measurements*
- Sound Insulation Program, Monterey Peninsula, Monterey, CA (2006), *Measurements*
- Departure Headings Analysis, Denver International, Denver, CO (2005), *Noise Modeling and Documentation*
- INM Version Comparison Study for NASA (2005), *Statistical Analysis*
- Annual Noise Contours, Fort Lauderdale International Airport, Fort Lauderdale, FL (2003,2004), *Noise Modeling and Documentation*
- Noise Study, East Hampton Airport, East Hampton, NY (2003), *Flight Noise Measurements and Modeling*
- Study of Aviation Noise and Student Achievement for FICAN (2002), *Data Collection and Statistical Analysis*
- Corridor Compliance, Baltimore/Washington International, Baltimore, MD (2002), *Flight Track Analysis and Reporting Template Creation*

Other Noise Projects

- Revision of the DoD's "Planning in the Noise Environment" (2016), *Technical Writer*
- Roadway Noise Barrier Study, Playa Grande, Dominican Republic (2011), *Noise Modeling*
- Wind Turbine Noise Assessment, Falmouth, MA (2011), *Noise Modeling*
- Sawmill Noise Assessment, Lincoln, CA (2007), *Project Manager*
- Noise Study, Elverta Road, Sacramento County (CA) (2005), *Noise Measurements*



Eugene M. Reindel

Vice President

Experience

1997-present, HMMH
1990-1997, The Boeing Company, Noise Engineering Laboratory

Education

M.E., Acoustics, Pennsylvania State University, State College, PA, 1995
B.S., Physics Engineering, Pacific Lutheran University, Tacoma, WA, 1989
Skilled Facilitator Intensive Workshop, Roger Schwartz & Associates Inc., Scottsdale, AZ 2009
Pathway to Principal, ZweigWhite, Boston, MA, 2005
FAA's Integrated Noise Model, HMMH Burlington, MA, 1997
Experiment and Uncertainty Analysis, Coleman and Steele, Seattle, WA, 1996
Occupational Hearing Conservation: A view from the '90s, American Speech-Language Hearing Association, Seattle, WA, 1994
High Frequency Damping Measurements, Cambridge Collaborative, Inc., Seattle, WA, 1994
Structural Dynamics Adequacy of High-Tech Facilities: Rational Evaluating Methods, National Technology University, Seattle, WA, 1993
Occupational Noise and Vibration, Northwest Center for Occupational Health and Safety, Seattle, WA, 1993
Noise Control for Buildings and Manufacturing Plants, Hoover & Keith Inc, Seattle, WA 1991
Hearing Protection Devices and Hearing Conservation Programs, EAR Division, Cabot Corporation, Seattle, WA 1990

Affiliations

Member, Institute of Noise Control Engineering, 1995-present
Corporate Member, Southwest Chapter of the American Association of Airport Executives, 2000-present

As the Director of Business Development for the Aviation Environmental Services Group, Vice President, and Manager of the Sacramento Office, Gene Reindel oversees a wide range of aviation noise consulting projects, offers industry experience to those projects and provides technical support to community noise forums throughout the U.S. His professional experience includes environmental projects, including National Environmental Policy Act (NEPA) and state equivalents in California, Oregon and Washington; 14 CFR Part 150 Airport Noise Compatibility Planning studies; 14 CFR Part 161 Airport Noise and Access Restriction projects; aircraft ground noise studies including low-frequency noise and ground run-up enclosures, residential sound insulation projects, and noise modeling of aircraft operations. He is often involved in preparing for and directing major field measurement programs and advising on the acquisition and analysis of data. Mr. Reindel is a trained facilitator and leads public outreach programs associated with controversial noise studies and programs.

Before joining HMMH, Mr. Reindel worked at the Boeing Commercial Airplane Company's Noise Engineering Laboratory in Seattle, WA. During his eight years at Boeing, he conducted a variety of work in acoustics and project management, ranging from hearing conservation to aircraft model testing inside an aero-acoustic wind tunnel, and aircraft flight tests.

Representative Projects

Aviation Projects

Aircraft Noise and/or Flight Track Monitoring Systems

- Baltimore/Washington International Thurgood Marshall Airport, Baltimore, MD (2016-present), *Project Manager*
- Boston Logan International Airport and Hanscom Field Airport, Boston, MA (2018), *Principal-in-Charge*
- San Antonio International, San Antonio, TX (2017-2018), *Project Manager*
- Raleigh-Durham International, Raleigh, NC (2017-2018), *Principal-in-Charge*
- Centennial Airport, Centennial, CO (2009-2015), *Project Manager*
- Los Angeles World Airports, NOMS Maintenance Scope of Work, Los Angeles, CA (2010-2011), *Project Manager*
- Reid-Hillview, East San Jose, CA (2002-2010), *Project Manager*
- San Antonio International, San Antonio, TX (2002-2010), *Project Manager*
- Reno-Tahoe International, Reno, NV (2005-2009), *Project Manager*
- Beijing Capital International, Beijing, China (2004-2008), *Project Manager*
- East Hampton Airport, East Hampton, NY (2006-2007), *Acceptance Test Manager*
- San Francisco International, San Francisco, CA (2000-2007), *Project Manager*
- Truckee Tahoe, Truckee, CA (2005), *Project Manager*
- Ted Stevens Anchorage International, Anchorage, AK (2004), *Project Manager*
- San Diego International, San Diego, CA (2002-2004), *Assistant Project Manager*
- Lehigh Valley International, Allentown, PA (2000), *Technical Writer/Reviewer*

Airport/Aircraft Sound Insulation Programs

- Chicago Executive Airport, Chicago, IL (2019-present), *Principal-in-Charge*
- Seattle-Tacoma International Airport, Seattle, WA (2015-present), *Principal-in-Charge*
- Tweed-New Haven Airport, New Haven, CT (2014-present), *Principal-in-Charge*
- University of California San Francisco Mission Bay Medical Center, Residential

Eugene M. Reindel, Vice President

Sound Reduction Program Implementation, San Francisco, CA (2014-2015), *Principal-in-Charge*

- T.F. Green International Airport, Providence, RI (2013-present), *Principal-in-Charge*
- George W. Bush Intercontinental, Houston, TX (2011-present), *Principal-in-Charge*
- Louisville International, Louisville, KY (2008-present), *Principal-in-Charge*
- Cleveland Hopkins International, Cleveland, OH (2007-2014), *Principal-in-Charge*
- St. Louis International, St. Louis, MO (2009-2014), *Principal-in-Charge*
- Martin County Airport / Witham Field, Stuart, FL (2009-2014), *Principal-in-Charge*
- Buffalo International, Buffalo, NY (2006-2014), *Principal-in-Charge*
- Fort Lauderdale Hollywood International, Fort Lauderdale, FL (2008-2012), *Principal-in-Charge*
- Tulsa International, Tulsa, OK, (2006-2012), *Principal-in-Charge*
- Los Angeles International, Inglewood, CA (2004-2012), *Principal-in-Charge*
- San Diego International, San Diego, CA, (1999-2011), *Principal-in-Charge*
- Boston's Logan International, Boston, MA, (2004-2010), *Principal-in-Charge*
- Ted Stevens Anchorage International, Anchorage, AK (2004-2010), *Principal-in-Charge*
- Monterey Peninsula, Monterey, CA, (2000-2008), *Principal-in-Charge*
- Pittsburgh International, Pittsburgh, PA (1998-2006), *Project Manager*
- General Mitchell International, Milwaukee, WI (1998-2005), *Noise Measurements and Report*
- Tampa International, Tampa, FL, (2004), *Assistant Project Manager*
- Minneapolis-St. Paul International, Minneapolis, MN (2002), *Noise Measurements and Report*
- Portable Classroom Noise Reduction, San Francisco International (2001), *Project Manager*

"Most important to me has been the ability to call Mr. Reindel at any time throughout the process and get answers to important questions as they arise."

Mr. Bert Ganoung, Manager, Aircraft Noise Abatement, San Francisco International Airport

"Mr. Reindel presents noise information that is easily understood and that no other acoustical expert with whom my firm has worked has communicated this information as well."

Mr. Michael Hotaling, Vice President, C&S Engineers, Inc.

Airport Noise On-Call and Facilitation Projects

- Charlotte International Airport, Charlotte, NC (2018-present), *Principal-in-Charge*
- Toronto Pearson International Airport, Toronto, Canada (2017-present), *Principal-in-Charge*
- San Francisco International Airport Community Noise Roundtable, San Mateo County, CA (2017-present), *Principal-in-Charge*
- Los Angeles World Airports, Los Angeles, CA (2013-present), *Principal-in-Charge*
- City of Fresno, Department of Airports, Fresno, CA (2010-2018), *Principal-in-Charge*
- Oakland International Airport, Oakland, CA (2007-present), *Project Manager*
- Salt Lake City International Airport, Salt Lake City, UT (2003-present), *Project Manager*
- Raleigh-Durham International Airport, Raleigh, NC (2010-2013), *Principal-in-Charge*
- Los Angeles International Airport/Community Noise Roundtable, Los Angeles, CA (2009-2010), *Facilitator*
- San Francisco International Airport, San Francisco, CA (1999-2007), *Project Manager*
- Sacramento County Airport System (Sacramento International, Sacramento Executive, and Mather Field), Sacramento, CA (2002-2005), *Project Manager*

Eugene M. Reindel, Vice President

14 CFR Part 150 Airport Noise Compatibility Planning Studies

- Piedmont Triad International Airport, Greensboro, NC (2019-present), Principal-in-Charge
- Newark Liberty International Airport, New Jersey, NY (2015-present), *Project Manager*
- Fresno Yosemite International, Fresno, CA (2015-2018), *Principal-in-Charge*
- Centennial Airport, Centennial, CO (2015-2017), *Principal-in-Charge*
- Louisville International, Louisville, KY (2015-2017), Principal-in-Charge
- Ontario International, Ontario, CA (2014-2015), *Principal-in-Charge*
- Great Falls Int'l, Great Falls, MT (2013-2015), *Principal-in-Charge*
- San Antonio Int'l, San Antonio, TX (2014), *Project Manager*
- Merrill Field, Anchorage, AK (2012-2014), *Principal-in-Charge*
- Louisville International, Louisville, KY (2010-2011), *Project Manager*
- San Diego International, San Diego, CA (2007-2011), *Project Manager*
- Fresno Yosemite International, Fresno, CA (2004-2007), *Assistant Project Manager*
- Reid-Hillview, San Jose, CA (1999-2004), *Assistant Project Manager*
- Boca Raton Airport, Boca Raton, FL (2001), *Technical Writer/Reviewer*
- Anchorage International, Anchorage, AK (1999), *Airport Staff Trainer*

14 CFR Part 161 Airport Noise and Access Restriction Project

- Los Angeles International Airport, Los Angeles, CA (2011-2014), *Assistant Project Manager*

Airport Environmental Studies

- Chicago O'Hare International Airport Fly Quiet Program EIS, Chicago, IL (2019), *Public Meeting Assistance*
- Re-Evaluation of the O'Hare Modernization EIS, Chicago O'Hare International Airport (2015), *Public Meeting Assistance*
- CatEx Noise Analysis for Runway Closure, Seattle-Tacoma International Airport (2014), *Project Manager*
- Reid-Hillview Airport EIR Noise Element, East San Jose, CA (2010-2012), *Principal-in-Charge*
- New Ivanpah Airport EIS, Ivanpah Valley, NV (2006-2010), *Technical Lead for Noise Measurement Program*
- Runway Extension EA, Portland International, Portland, OR (2007-2008), *Project Manager*
- Modernization Program EIS, Chicago O'Hare, Chicago, IL (2003-2005), *Project Manager*
- Runway Extension EA, Eagle County Airport, Eagle, CO (2003-2005), *Project Manager*

California Airport Land Use Compatibility Plan Updates

- San Bernardino International, San Bernardino, CA (2007-2011), *Principal-in-Charge*
- California Department of Transportation (Caltrans) Airport Land Use Handbook Update, Sacramento, CA (2009-2010), NextGen Task Area, *Principal-in-Charge*
- 12 civil and 4 military airports, San Diego County Regional Airport Authority, San Diego, CA (2004-2010), *Principal-in-Charge*
- Land Use Plan Update, Travis Air Force Base, Fairfield, CA (2000-2001), *Assistant Project Manager*

Eugene M. Reindel, Vice President

Airport Ground Noise Studies

- Noise Barrier Feasibility Study, Tweed-New Haven Airport, New Haven, CT (2015-present), *Principal-in-Charge*
- Ground Noise and Barrier Analysis Study, Milwaukee International Airport, Milwaukee, CA (2013-2016), *Principal-in-Charge*
- Ground Run-up Enclosure Siting Study, Los Angeles International Airport, Los Angeles, CA (2014-2015), *Principal-in-Charge*
- Ground Engine Run-Up Enclosure Study, Los Angeles International Airport West Aircraft Maintenance Area, Los Angeles, CA (2013), *Principal-in-Charge*
- Low-Frequency Noise Study, San Francisco International, San Francisco, CA (2000-2003), *Project Manager*
- Ground Engine Run-up Enclosure Study, Seattle-Tacoma International, Seattle, WA (2001), *Assistant Project Manager*
- Ground Engine Run-up Enclosure Acceptance Noise Test, Portland Int'l (2001), *Noise Measurements*
- North Taxiway Extension Noise Study, San Diego International, San Diego, CA (1999-2001), *Project Manager*
- East Boston Hill Effects Study, Boston-Logan International, Boston, MA (1998-2001), *Technical Lead*
- Low-Frequency Noise Study, Minneapolis-St. Paul International, Minneapolis, MN (1997-2001), *Noise Analyst*
- Engine Run-up Study, Minneapolis - St. Paul International, Minneapolis, MN, (1998), *Technical Analyses*
- Airport Low-Frequency Noise Study, Baltimore-Washington International, Baltimore, MD (1997), *Noise Analyst and Report Writer*

Other Airport Noise Studies

- Westchester County Airport, Westchester County, NY (2019-present), *Principal-in-Charge*
- Southern California Metroplex Preliminary Design Review, Los Angeles, CA (2011-2018), *Project Manager*
- Annual Noise Report, Louisville International Airport, Louisville, KY (2010-2014), *Principal-in-Charge*
- Noise Assessment of the Proposed Runway End Safety Area (RESA) Alternatives, Vancouver International Airport, Vancouver, BC (Canada) (2012), *Principal-in-Charge*
- INM Accuracy for GA Aircraft, Airport Cooperative Research Program, Transportation Research Board (2011-2012), *Project Manager*
- California Airport Noise Variance Review, San Jose International Airport (2011-2012), *Principal-in-Charge*
- Airport Noise Exposure Contours, Palomar Airport, Carlsbad, CA (2010), *Principal-in-Charge*
- Permanent Noise Monitor Review, Toronto International Airport, Toronto, Canada (2009-2010), *Principal-in-Charge*
- Aircraft Noise Compatibility, Beijing Capitol International Airport, Beijing, China (2008-2009), *Project Manager*
- Noise Monitor Site Assessments, Fort Lauderdale International, Fort Lauderdale, FL (2007), *Acoustical Advisor*
- Noise Compatibility Study, Willow Lake Airport, Willow Lake, AK (2006-2007), *Principal-in-Charge*
- Airport Master Plans, County of Santa Clara (Reid Hillview, Palo Alto, and South County Airports), San Jose, CA (2003-2007), *Project Manager*

Eugene M. Reindel, Vice President

- Cargo Operations Analysis, March Air Reserve Base, Riverside, CA (2004), *Project Manager*
- Woodcreek Noise Measurements, Houston Intercontinental Airport, Houston, TX (2001-2002), *Project Manager*
- Noise Mitigation Study, Aurora State Airport, Aurora, OR (2001-2002), *Project Manager*
- City-by-City Noise Measurements, San Francisco International, San Francisco, CA (2000), *Project Manager*
- Airport Noise Analysis for North Natomas, County of Sacramento, CA (1999-2000), *Assistant Project Manager*
- Early Turn Study, Portland International, Portland, OR (1999), *Noise Analyst and Report writer*
- Noise Abatement Departure Procedures Analysis, Palm Beach International, West Palm Beach, FL (1998), *Noise Analyst*

Aircraft Noise Projects

- Republic of China Air Force Aircraft for INM Database, Taiwan (1999-2000), *Project Manager*
- Stage 2 Business Jet Hushkit Noise Certification Measurements, Button Willow, CA (1999-2000), *Project Manager*
- Aircraft Noise Measurement Program, Grand Canyon National Park (1999), *Assistant Project Manager*
- INM Accuracy Study for Lockheed and the FAA, (1998-1999), *Noise Analysis*

Helicopter Noise Studies

- Timbers Resorts, Lihue Airport, Lihue, HI (2019-present), *Principal-in-Charge*
- University of California Helipad Noise Study, Los Angeles, CA (2009), *Principal-in-Charge*
- University of California Hospital Helipad EIR, San Francisco CA (2007-2009), *Principal-in-Charge*
- San Francisco General Hospital Helipad EIR, San Francisco, CA (2004-2007), *Project Manager*
- Mohler Residential Helipad, Livermore, CA (2004), *Project Manager*
- Duck Pond Vineyards Helicopter Noise Analysis, Sunol, CA (2001-2002), *Technical Advisor*
- Redding Medical Center Rooftop Helistop Noise Analysis, Redding, CA (2000), *Technical Reviewer*

Rail Projects

- LRT Phase II South Corridor Extension, Sacramento, CA (2002-2004), *Noise and Vibration Measurements*
- BART Extension, Hayward/Warm Springs, CA (2002), *Noise Measurements*
- Santa Ana Double Track Noise Measurements, Santa Ana, CA (2000-2001), *Noise Measurements and Analysis*
- CSX/Conrail/Norfolk Southern Freight Rail Merger, Illinois/Indiana (1998), *Noise Measurements*
- Seattle-Tacoma Light Rail Transit Vibration Analysis, Seattle, WA (1998), *Vibration Data Analysis*
- Dallas Area Light Rail Transit, Noise and Vibration Measurements (1998), *Noise and Vibration Measurements*

Industrial and Community Projects

Eugene M. Reindel, Vice President

- Wag Pet Hotel Community and Employee Noise Exposure, Sacramento, CA (2005-2006), *Principal-in-Charge*
- Cheyenne Pump Station Noise and Vibration Analysis, Las Vegas, NV (2003-2004), *Project Manager*
- Holy Cross Lutheran Church Expansion Noise Analysis, Rocklin, CA (2002-2004), *Project Manager*
- MDAD Employee Noise Exposure Survey, Miami International, Miami, FL (2001), *Assistant Project Manager*
- Chiller Noise Analysis and Control, San Diego International, CA (2000), *Project Manager*
- Sierra Grain Terminal Noise Analysis Critique, Stanislaus County, CA (1999), *Project Manager*
- Noise Analysis of a Property Development Near Hong Kong's New Airport (1997-1999), *Assistant Project Manager*

Highway Projects

- State of California Sound Insulation Working Group, Sacramento, CA (2005), *Professional Advisor*
- US-101 Noise Measurements, Marin County, CA (2001), *Assistant Project Manager*
- San Fernando Valley BRT project, Los Angeles, CA (2001), *Noise Measurements*
- I-495 Alternatives Development Study, VA (1997-1998), *Noise Impact Analysis*

Expert Testimony and Litigation Support

- Acute Care Hospital Application, Miami, FL (2018-present)
- Kunz v. Salt Lake City Department of Airports, Salt Lake City, UT (2015-2018)
- Briggs v. City of Palmer, Palmer Airport Noise Assessment, Palmer, AK (2010-2013)
- Noise Assessment, Sierra Pacific Industries, Lincoln, CA (2007)
- Fickewirth v. Lakeview Farms Hunting Preserve, Lincoln, CA (2004)
- Perez v. Ultra Truck Works, Inc., Elk Grove, CA (2003)
- Schnee Studios v. MTA, Los Angeles, CA (2002)
- Larrabee Studios v. MTA, Los Angeles, CA (2002)
- Hsu v. Clark County, McCarran International, Las Vegas, NV (2001-2002)
- Sisolak v. Clark County, McCarran International, Las Vegas, NV (2001-2002)
- Fleischer v. Clark County, McCarran International Las Vegas, NV (2001-2002)
- Vacation Village v. Clark County, McCarran International. Las Vegas, NV (2001-2002)
- Alexis Park v. Clark County, McCarran International, Las Vegas, NV (2001-2002)
- Wesley Homes v. Port of Seattle, Seattle-Tacoma International (2001-2002)
- Aircraft Noise at House East of Santa Monica Municipal, Santa Monica, CA (2000-2001)
- Blaustein v. Clark County, McCarran International, Las Vegas, NV (1999-2000)

Training

- Skilled Facilitator Intensive Workshop, Roger Schwarz & Associates, Inc., 2009
- Pathway to Principal, ZweigWhite, 2005
- FAA's Integrated Noise Model, HMMH, 1997
- Experiment and Uncertainty Analysis, Coleman and Steele, 1996
- Occupational Hearing Conservation: A view from the '90s, American Speech-Language Hearing Association, 1994
- Structural Dynamics Adequacy of High-Tech Facilities: Rational Evaluating

Eugene M. Reindel, Vice President

Methods, National Technology University, 1993

- Occupational Noise and Vibration, Northwest Center for Occupational Health and Safety, 1993
- Noise Control for Buildings and Manufacturing Plants, Hoover & Keith Inc, 1991
- Hearing Protection Devices and Hearing Conservation Programs, EAR Division, Cabot Corporation, 1990

Representative Publications and Presentations

- Aircraft and Airport Noise Prediction and Control, w/ N. Miller, R. Horonjeff, Handbook of Noise and Vibration Control, Malcolm J. Crocker, John Wiley & Sons, Inc., 2007
- Survey Results: Noise and Operations Monitoring System Users, University of California Berkeley Aviation Noise and Air Quality Symposium, Palm Springs, CA, 2006
- “New” Airport Noise Metrics, Airport Planning, Design, and Construction Symposium, Reno, NV, 2006
- Testimony on Airport Noise Issues, California Assembly Select Committee on Airports and the Airline Industry Hearing, City of Brisbane, CA, 2003
- Low-Frequency Noise from Aircraft Start of Takeoff, w/ N. Miller, D. Senzig, R. Horonjeff, inter-noise 98, Christchurch, New Zealand, 1998



Diana B. Wasiuk

Vice President and Chief Operating Officer (COO)

Experience

2006-present, HMMH
2001-2006, Crown Consulting Inc.

Education

M.B.A, Master of Business Administration in Aviation, Embry-Riddle Aeronautical University, FL, 2000

B.A., Aviation Business Administration, Embry-Riddle Aeronautical University, FL, 1998

Affiliations

Member, Women in Aviation International (WIAI), 1998-present
Member, Airport Consultants Council (ACC), 2001-present
Member, Airports Council International (ACI), 2001-present
Member, American Association of Airport Executives (AAAE), 2001-present
Member, Air Traffic Control Association (ATAC), 2001-present
Member, Aircraft Owners & Pilots Association (AOPA), 1992-present

As Vice President and COO, Ms. Wasiuk is responsible for managing the operational aspects of HMMH and assisting the Chief Executive Officer (CEO) in achieving strategic and sustainable growth. Through her constructive and energetic style, guided by the objectives and values of HMMH, Ms. Wasiuk provides the leadership, management and vision necessary to ensure that HMMH operates with proper operational controls, administrative and reporting procedures, and people systems to meet client needs, ensure operating efficiency and sustain financial viability.

Ms. Wasiuk is also responsible for overseeing HMMH’s consulting practices, including project delivery, financial performance, and client satisfaction. Ms. Wasiuk served as the program/project manager for several complex and controversial airport environmental and planning efforts such as the Environmental Assessment for the 8.5 billion dollar capital improvement program at O’Hare International Airport and the North Texas Metroplex Environmental Assessment under the FAA’s Optimization of Airspace Procedures in the Metroplex (OAPM) Program. Ms. Wasiuk often serves as project QA/QC SME and ensures adherence to the HMMH QA/QC best practices and proper review for scientific methods, deliverables and data generated under projects.

Ms. Wasiuk also brings extensive experience with the design and implementation of the FAA Next Generation Air Transportation System (NextGen). Over the past 9 years, Ms. Wasiuk has been involved in developing the original NextGen Concept of Operations (ConOps), the Integrated Work Plan (IWP), and the Enterprise Architecture (EA), as well as later iterations of each resource. Subsequently, as interagency plans were translated into agency programs, Ms. Wasiuk was involved in transitioning NextGen from planning to implementation stages, resolving policy issues, key decisions, research gaps, and funding needs. She assisted the FAA with developing NextGen technology and policy solutions for airports and worked on initiatives to integrate NextGen capabilities into existing airport infrastructure for airside and landside operations.

Moreover, Ms. Wasiuk was involved in development of systems engineering tools – primarily the Joint Planning Environment (JPE) – to coordinate NextGen planning efforts among federal agencies and industry partners and to quantify progress toward implementation objectives.

Ms. Wasiuk is a certified pilot and an active member of organizations such as Air Traffic Control Association (ATCA), Transportation Research Board (TRB), Airport Consultants Council (ACC), Airports Council International (ACI), American Association of Airport Executives (AAAE), and Aircraft Owners and Pilots Association (AOPA).

Representative Projects

Airport/ Airspace Planning and Environmental Studies

- Environmental Assessment – O’Hare International Airport Terminal Area Program (2019-present), *Program Manager*
- Environmental Impact Statement Re-evaluation - O’Hare International Airport Modernization Plan: Interim Fly Quiet (2017-present), *Program Manager*
- EA for the North Texas Optimization of Airspace and Procedures in the Metroplex (NTx OAPM) project, Federal Aviation Administration (2012-2014), *Project Manager*

Diana B. Wasiuk, Vice President and Chief Operating Officer (COO)

- EA for the Houston Optimization of Airspace and Procedures in the Metroplex (HOU OAPM) project, Federal Aviation Administration (2012-2013), *Outreach Subject Matter Expert*
- EA for Seattle Greener Skies project (2011-2012), *Air Traffic Control (ATC) Subject Matter Expert*
- EIS for Capacity Enhancement Program (CEP), Philadelphia International Philadelphia, PA (2006-2011), *Air Traffic Control (ATC) SME*
- EIS for new Ivanpah Valley Airport, Las Vegas, NV (2006-2011), *ATC and Airport Planning Subject Matter Expert*

Other Projects

- 14 CFR Part 150 Noise Exposure Map Update, Louisville International, Louisville, KY (2015-2017), *Project Manager*
- ACRP 01-28 NextGen – Guidance for Engaging Airport Stakeholders (2014-2015), *Airport Planning Subject Matter Expert*
- ACRP 09-12 NextGen - Leveraging NextGen Spatial Data to Benefit Airports (2014-2015), *Airport Planning Subject Matter Expert*
- ACRP Project 03-20 Defining and Measuring Aircraft Delay and Airport Capacity Thresholds (2010-2012), *Airport Planning SME*
- Joint Planning & Development Office (JPDO) for the Next Generation Air Transportation System (NGATS) (2005-2012), *Project Manager; Senior Policy Analyst*
- FAA Commercial Space Division – Noise and Scope Study for Commercial Space Launches (2009), *Project Manager*

Projects with other firms

- FAA Commercial Space ConOps Development, FAA (2006), NAS and ATM SME
- Airport Master Plans, Deer Valley and Good Year Airports, Phoenix, AZ (2005-2006)
- Regional Airspace Capacity Planning Study, Southern California Association of Governments (SCAG) (2002-2006)
- National Airspace Redesign – Program Support, FAA, (2001-2006)
- Modernization Program Master Plan, Chicago O’Hare International, Chicago, IL (2002-2004)
- 4th Runway Analysis, Miami International, Miami, FL (2003)
- Concept of Operations for the New York Integrated Control Complex; (2001-2002)
- Risk Assessment Study for Free Flight Tools, Location, (2001-2002)
- FAA’s Suncoast TRACON Design Study (2000-2001)
- Risk Assessment of Flight Operations Risk Assessment System (FORAS) (1995-1996)
- Risk Assessment of Controlled Flight into Terrain (CFIT) Program, (1996)

“HMMH consistently provides high quality products and their advice has been invaluable in guiding the JPDO's effort to frame important policy issues to key government decision makers. Analyses of key issues demonstrate detailed understanding of advanced aviation and air traffic management concepts and the overarching policy considerations of a network enabled, aircraft enteric, satellite based environmentally friendly, safe and secure transportation system.”

-Claire Robinson, Federal Aviation Administration



Angelina Fairchild P.E., LEED AP

Green Infrastructure, On-Call Program Management

Representative Experience

American Airlines Concourse 'D' at Miami International Airport, Miami, FL — Structural engineer for all site civil structures for the \$16.5 million North Terminal Development Concourse 'D' Extension Apron and Utilities project at Miami International Airport. The project involved significant apron and utility work that included asphalt and concrete pavement demolition and construction and pavement marking, as well as underground utility installation, demolition and relocation.

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.

Hillsborough County Aviation Authority (HCAA) Airport Support Facilities, Phase III Warehouse (Tampa International Airport), Tampa, FL — Structural engineer for the Kimley-Horn team retained by HCAA to provide project management, civil engineering, landscape architecture, security access control, structural engineering, communications/IT, quality assurance/quality control, and environmental services for the Phase III warehouse project at Tampa International Airport. The structural elements of the warehouse project included the main foundation, as well as vehicular ramps, loading docks and levelers, and switch-back ADA access ramps at the main building entry.

Miami International Airport (MIA) Terminal D-E-F Wrap Expansion Program, Miami, FL Structural engineer for the site civil structures, tunnels, and foundation design of a proposed \$280-million terminal expansion at MIA. The project consisted of 850,000 square feet of new building construction and 600,000 square feet of existing terminal renovation. The scale of the expansion required extensive utility relocations, nine underground baggage and conveyor tunnels, and drainage and pavement modifications to be made while maintaining tenant operations at one of the world's busiest airports.

Miami International Airport D E F G H Civil and Apron Project, Miami, FL — Provided foundation design for the four-story addition of 848,500 square feet of new space and for the renovation of 594,300 square feet of existing terminal facilities. Assisted in the design of nine underground, inbound baggage tunnels, as well as the mat foundation for a new gate control tower. Foundation types considered included spread footings, auger cast piles, drilled shafts, and mats.

Orlando International Airport, Cargo Road Phases I and II, Orlando, FL — Structural project engineer for design and construction administration services for both phases of the Cargo Road project at Orlando International Airport. The first phase of this two-phase project included design of approximately 7,000 feet of roadway, 30,000 square feet of retaining wall, and four overpass bridges. The second phase included an emergency vehicle access bridge over an existing canal and a major utility canal crossing structure.

South Access Roadway and Bridge Design, Orlando International Airport, Orlando, FL— Structures task manager responsible for the design of the bridge, four cast-in-place box culverts, a service tunnel, and over 900,000 square feet of proprietary mechanically stabilized earth (MSE) retaining walls. The scope of services ranged from conceptual design to final plans and contract documents. The three-span, 287-foot long, Type IV AASHTO girder superstructure bridge is supported on multi-column

Special Qualifications

- A lead engineer in our structural division with 32 years of experience
- Principal areas of practice include structural design, seawalls and shoreline hardening, industrial facilities, municipal projects, parks, marinas, bridges, and condition assessments
- Involved in the design, rehabilitation, repair, construction, and inspection phase services on a variety of structural engineering projects that have included conventional reinforced concrete, precast prestressed concrete, post-tensioned concrete, and structural steel

Professional Credentials

- Master of Science, Civil Engineering, University of Texas, Austin
- Bachelor of Science, Architectural Engineering, University of Texas
- Professional Engineer in Florida, #43958
- LEED® Accredited Professional
- U.S. Green Building Council - National Capital Region

Angelina Fairchild P.E., LEED AP

Representative Experience Continued

interior piers and pile bent abutment recessed behind MSE walls. These structures are on a three-mile access road that provides a link to the Orlando International Airport from the Southern Connector Expressway.

South General Aviation Apron Expansion/Reconfiguration at Tallahassee Regional Airport, Tallahassee, FL — Project engineer. 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 — As structural engineer, provided structural improvements to the vault building as part of the rehabilitation of the taxiway lighting systems.

Short Circuiting Repairs for Stormwater Treatment Area 5 (STA5), South Florida Water Management District (SFWMD), Hendry County, FL — Lead project manager for the design and implementation of a restoration project for the mitigation of short circuiting within STA 5. The STA had several lower elevation slough areas that ran through the southern section of Cell 1A. Soil to fill in the slough was removed from a non-effective treatment area of the STA and imported to the lower areas. The project included excavation and transport of 407,000 cubic yards of material and included detailed coordination of District field equipment and staff so the work could be performed with internal resources. The STA and borrow areas were dewatered, a controlled burn was done in the borrow area prior to clearing and grubbing. Material was excavated using several 3 CY excavators and D6 Bulldozers; then transported using (15) - 25 CY articulated dump trucks, and then placed into the short circuiting deep areas to fill the deep zones. The areas were laser leveled prior to project completion. Project was brought in on time and with a surplus budget of \$400,000, which was used to purchase two new backhoe pieces of equipment for the field station.

Beach Road Water Control Structure Rehabilitation, Sanibel, FL — The City of Sanibel owns and maintains a storm water conveyance and management system that includes water control structures operated by sluice gates. The Beach Road Water Control Structure (BRWCS) is part of the system draining an area south of Periwinkle Way and East of Donax Street to San Carlos Bay. The BRWCS structure was built circa 1992 of reinforced concrete with two 72" x 60" flush bottom sluice gates and an adjacent weir basin. As the project manager for Kimley-Horn, coordinated and oversaw the team that performed an in-depth inspection of the BRWCS both, above water and underwater to determine and document the attributes of each defect such that repair/rehab plans and bid documents could be prepared. Following the presentation of these findings, as the engineer of record, lead the engineering team that developed a Repair Protocol Manual, Plan details, and specifications suitable for construction and bidding to repair the deficiencies and restore the structures. Recently submitted proposal to provide post-design and construction phase services to the City.

McCarran International Airport Runway 7R-25L and Other Airfield Improvements, Las Vegas, NV — Structural engineer on the Kimley-Horn team that was responsible for a pavement maintenance/management study that included MicroPAVER implementation for McCarran International and North Las Vegas Executive Airport, a reliever airport to McCarran; Runway 7R/25L and taxiway extension; major AC runway/taxiway extension to the primary runway; removal and replacement of failed fibrous reinforced PCC apron, NAVAIDS, lighting, and a new FAA remote transmitter; and design engineering services for North FRC removal/replacement, Taxiway G2 design, Taxiway S design, South FRC removal/replacement, Runway 7R/2SL design, and Taxiway C design.

Nashville International Airport (BNA), Air Cargo Apron Expansion and Rehabilitation (Phases I and II), Nashville, TN

Structural engineer on site civil structures for design of a rehabilitation and expansion of an existing air cargo apron. The project was designed to upgrade and expand the existing PCC air cargo apron and connector taxiways to accommodate aircraft up to and including the Anaton AN-124.



David Goldman, P.G.

Environmental Site Investigation and Rehabilitation Services

Representative Experience

Environmental Contamination Assessment and Mediation Planning, Belle Glade State Municipal Airport, Belle Glade, FL — Hydrogeologist. The western section of the airfield is heavily contaminated with several organochlorine pesticides (OCPs), including toxaphene and dichloro-diphenyl-trichloroethane (DDT). Kimley-Horn helped secure funding from the Florida Department of Transportation (FDOT) to allow for completion of additional site assessment, soil pilot study, feasibility study, and remediation design at the facility. Kimley-Horn is currently in the process of completing a feasibility study evaluating several options for remediation of soil. The feasibility study includes evaluation of future use plans for the facility and integration of site future development with cleanup.

As the environmental project manager, David is overseeing the environmental and remediation tasks at the airport for the City of Belle Glade. Kimley-Horn is currently serving as general engineering aviation consultant and extension of staff for the Belle Glade State Municipal Airport (X10). Several services orders have been assigned and completed by Kimley-Horn, including the following three tasks: Runway 9-27 Rehabilitation, Solar Power Lighting Project, and Environmental Contamination Assessment and Mediation Planning.

City of Wauchula 226 West Main Street, Wauchula, FL — Project manager. Kimley-Horn assisted the City of Wauchula with the successful application for a Brownfield Assessment Grant from the U.S. Environmental Protection Agency. A Phase I Environmental Site Assessment (ESA) was completed on the 226 West Main Street property in anticipation of redevelopment within the downtown core. The Phase I ESA identified that the property was historically utilized as an auto repair facility. A Phase II ESA was completed that identified an underground storage tank (UST) and elevated concentrations of petroleum products in the soil and groundwater. Kimley-Horn oversaw the removal of the UST and completed the site assessment required to delineate the soil and groundwater plume. Concurrently, Kimley-Horn assisted in obtaining an FDEP 128(a) grant for remedial planning and implementation. The site has undergone cleanup of the impacted groundwater.

St. Johns Village Environmental Services, Jacksonville, FL — Project manager. Kimley-Horn was retained to provide professional engineering and environmental services for the proposed redevelopment of this former commercial and residential development along the St. Johns River. The team's scope included the following environmental services: Phase I and II Environmental Site Assessment (ESA) reports, Site assessment and completion of Site Assessment Report (SAR), Remediation design and completion of a Remedial Action Plan (RAP), Preparation of a Soil Management Plan used during construction on the property and preparation of a dewatering discharge permit with Jacksonville Electric Authority (JEA) to allow for discharge of contaminated groundwater into the sanitary sewer, Environmental testing and observation during construction, Assistance with Brownfield Area designation and negotiation of Brownfield Site Rehabilitation Agreement (BSRA) with the Florida Department of Environmental Protection (FDEP), Public outreach, and Hazardous building material survey.

As project manager, David managed a variety of engineering services. Kimley-Horn was retained to provide professional engineering and environmental services for the proposed redevelopment of this former commercial and residential development along the St. Johns River. The team's scope included preparing Phase I and II ESA reports, conducting a site assessment and completing an SAR, developing a remediation design and completing an RAP, preparing a Soil Management Plan for use during construction on the property and preparing a dewatering discharge permit with JEA to allow for

Special Qualifications

- Has 31 years of experience in conducting and managing remediation projects involving Brownfield sites, hazardous waste, industrial waste, and petroleum contamination; water resource development; permitting; groundwater modeling; and aquifer storage and recovery (ASR)
- Integration of site assessment and remediation with site civil design and construction components on numerous sites in Florida and other areas of the country
- Experience with environmental compliance, RCRA, CERCLA, and state hazardous waste and cleanup programs

Professional Credentials

- Master of Science, Geology, University of Florida
- Bachelor of Science, Geology, University of Florida
- Professional Geologist in Florida, #PG1573

David Goldman, P.G.

Representative Experience Continued

discharge of contaminated groundwater into the sanitary sewer, environmental testing and observation during construction, assisting with brownfield area designation and negotiating a BSRA with FDEP, conducting public outreach, and performing a hazardous building material survey.

Wauchula EPA Brownfields Assessment Program Consulting, Wauchula, FL — The City of Wauchula was awarded a Brownfields Assessment Grant by the EPA to assess hazardous substances and petroleum contamination at various sites within the designated enterprise zone. Kimley-Horn's scope of work under this task-based contract includes generation of scope/fee and completion of Phase I and Phase II Environmental Site Assessments (ESAs) at designated sites; preparation of site-specific Quality Assurance Project Plans (QAPPs) and Health and Safety Plans (HASPs) to meet EPA and FDEP standards; preparation of monthly and quarterly report documentation for submittal to EPA; Brownfield Site Rehabilitation Agreements (BSRAs) development and negotiations; and assisting with negotiating assessment requirements with the EPA and FDEP on behalf of the County. Additional services include community outreach/stakeholder involvement, risk assessment reporting, asbestos and lead-based paint surveys, and the generation of cleanup and redevelopment plans

Fire Station #8, Fort Lauderdale, FL — As part of this fire station project, Kimley-Horn provided environmental services. Specifically, the team was responsible for preparing and submitting all documentation required by Broward County for the Environment Assessment and Remediation (EAR) License and as well as completing a Site Assessment Report (SAR) for the site. Other services include a Soil Management Plan (SMP), dewatering plan, and dust control plan.

Dr. Kelly Floodplain Compensation Property Site Assessment and Remedial Action Plan, Sarasota, FL — Project manager for completion of site assessment report (SAR) and Remedial Action Plan (RAP) of a site proposed for floodplain compensation and wetland mitigation. Arsenic-contaminated soil and groundwater present on the site. Use of engineering and institutional controls to integrate floodplain mitigation plans with proposed remediation. Remedial design includes installation of slurry wall into shallow confining unit.

BrandsMart, West Palm Beach, FL — Project manager for the site assessment and remediation of a former golf course contaminated with arsenic; the site was under investigation for inclusion on the National Priorities List (NPL). Arsenic impacts were identified during the construction of a large retail center on the property. Kimley-Horn worked with the Florida Department of Environmental Protection (FDEP) Southeast District and the South Florida Water Management District (SFWMD) to develop a site assessment and remediation approach that was conducted concurrently with site construction activities. We designed the approach to minimize interference with the construction of the retail center while providing protection to human health and the environment. Kimley-Horn prepared groundwater flow and contaminant transport models using MODFLOW to examine the long-term effects of the proposed stormwater control system. We also prepared a comprehensive, long-term Monitored Natural Attenuation Plan to observe the attenuation of arsenic over time. The site was submitted under the State of Florida Brownfield Program in order to remove the site from the NPL. Subsequently, this site was approved as part of a Brownfield Area, and Kimley-Horn prepared the Brownfield Site Rehabilitation Agreement.

Walmart, Auburndale, FL — Project manager for remediation of arsenic-contaminated property. Site consists of former landfill used to dispose of nursery waste and has arsenic impacts in soil and groundwater. Completed groundwater flow and contaminant transport model to simulate the effects of stormwater recharge of movement of the existing groundwater contaminant plume. Examined most cost-effective approach for remediation of arsenic-impacted soil and development of property. Site is in a designated Brownfield Area. Currently preparing Brownfield Site Rehabilitation Agreement for the site.



Steve Cornell, P.E.

Sustainability and Resiliency, On-Call Program Management

Representative Experience

GOAA, Orlando International Airport STC South Terminal C Phase 1, Orlando, FL — QA/QC Reviewer. Kimley-Horn provides engineering services for the airfield civil design of the new South Terminal C. Kimley-Horn works closely with the subconsultant design teams for the Airside Concourse and Ground Service/Support Equipment elements of the project. The scope includes the design of apron and taxiway pavements, pavement markings, airfield electrical, a hydrant fueling system, sanitary sewer, fire hydrant protection system, stormwater management, oil-water separation system, airside vehicle service road system, and an AOA security fence. The taxiways will provide access between the new terminal and the existing airfield. Kimley-Horn assisted the airport in the location and geometry of the new taxiways to meet the FAA requirements for runway incursion mitigation (RIM). Phase I of the South Terminal C will consist of 16 gates (widebody and narrowbody) and 462,700 square yards of P-501 rigid portland cement concrete pavement. In addition, we also are serving as a subconsultant on the landside terminal building civil improvements. The Kimley-Horn team implemented Autodesk Civil 3D and Navisworks to coordinate building information model (BIM) integration with the multitude of design partners and disciplines. Furthermore, Autodesk BIM 360 Glue was used to allow for expedited interdisciplinary collaboration and coordination of design.

Punta Gorda Airport, Rehabilitation and Extension of Runway 15/33, Punta Gorda, FL — QC/QA Reviewer. Kimley-Horn is providing design, bidding, and construction administration services to rehabilitate and extend Runway 15/33. Within the early phases of design, Kimley-Horn performed an extensive pavement condition analysis including a pavement coring program to fully understand the most economical approach for the rehabilitation. The rehabilitation consists of a nominal 1" profile milling and a 2" overlay of P-401 asphalt. The extension component of the project occurs at the Runway 33 end, which is being 593 feet for the full width of 150 feet. During design, Kimley-Horn coordinated regularly with airport staff. Engagement with stakeholders, such as ATCT Chief, FAA, Airlines, and Airport Operations, was necessary when preparing the construction safety and phasing plan. With a very stringent schedule to meet the deadline for FAA grant application, Kimley-Horn successfully prepared the contract documents on-time and fully coordinated with PGD staff exceeding their expectations for quality and service.

Indianapolis International Airport, Part A - Preliminary Engineering and Programming for Runway 5R/23L and Taxiway D, Indianapolis, IN — Project engineer. Kimley-Horn is providing preliminary engineering and programming services for Runway 5R/23L and Taxiway D including all connector taxiways at the Indianapolis International Airport (IND). Services include defining the project and schedule, project administration work planning, badging, preparing monthly status reports, performing field surveys including detailed crack mapping of pavement distress to support pavement condition index determination (PCI), geotechnical investigations, sustainability, phasing alternatives, preliminary CSPP, rehabilitation/reconstruction alternatives, pavement design, cost benefit analysis, engineer's opinion of probable construction cost, quality control reviews and revisions, review meetings with the Airport Authority, constructibility and value engineering, contractor outreach meeting, and preparing preliminary design. The study will provide recommendations to identify a preferred means of restoring Runway 5R/23L and Taxiway D as well as any associated infrastructure, to a PCI of 100 with an expected lifespan or 30 years of more.

Indianapolis International Airport, Part A, Preliminary Engineering and Programming for Runway 5R/23L and Taxiway D, Indianapolis, IN — Project engineer. Kimley-Horn is providing preliminary engineering and programming services for Runway 5R/23L and Taxiway D including

Special Qualifications

- 30 years of progressive experience in the planning, design, and construction of complex airport development programs
- Extensive experience includes new greenfield airports as well as expansion, redevelopment, and rehabilitation of airside, landside, and terminal facilities for airport clients across the U.S. and on four continents abroad
- Co-authored the "Airport Owner's Guide to Project Delivery Systems" and has served as a subject matter expert at specialty conferences
- Passionate about the integration of advanced technologies into the built airport environment; holds a U.S. Patent (US 9,085,375 B2) for the "Automated Terminal to Aircraft Conveyance System"

Professional Credentials

- Bachelor of Science, Civil Engineering, University of South Florida
- Professional Engineer in Florida #39434

Steve Cornell, P.E.

Representative Experience Continued

all connector taxiways at the Indianapolis International Airport (IND). Services include defining the project and schedule, project administration work planning, badging, preparing monthly status reports, performing field surveys including detailed crack mapping of pavement distress to support pavement condition index determination (PCI), geotechnical investigations, sustainability, phasing alternatives, preliminary CSPP, rehabilitation/reconstruction alternatives, pavement design, cost benefit analysis, engineer's opinion of probable construction cost, quality control reviews and revisions, review meetings with the Airport Authority, constructibility and value engineering, contractor outreach meeting, and preparing preliminary design. The study will provide recommendations to identify a preferred means of restoring Runway 5R/23L and Taxiway D as well as any associated infrastructure, to a PCI of 100 with an expected lifespan of 30 years or more.

Eugenio Maria De Hosotos Airport (MAZ) Rehabilitation of Runway 9-27, Mayaguez, PR — QA/QC. Kimley-Horn is providing engineering consulting service for the rehabilitation of Runway 9-27 and Taxiways A, B, C, D, E and F. This includes pavement structural work, horizontal and vertical geometric changes to the airfield pavements for compliance with FAA Advisory Circular (AC) 150/5300-13A "Airport Design" for an Airport Runway Design Code of B-II, electrical and lighting works and pavement markings programmed as part of the Pinellas County CIP. The intent is to provide a continuous network of streets, sidewalks, bike lanes and trails, and upgraded pedestrian and transit amenities interior piers and pile bent abutment recessed behind MSE walls. These structures are on a three-mile access road that provides a link to the Orlando International Airport from the Southern Connector Expressway.

Puerto Rico Ports Authority, A/E Services for Regional Airports Improvements Program, PR — Project engineer. Kimley-Horn is providing professional consulting services to Culebra, Mayaguez, Vieques, Humacao, and Ceiba airports. Kimley-Horn is conducting a review of the existing configuration of the runway and taxiway system to determine consistency with the guidance contained in AC 150/5300-13A (Change 1). The review will consider bringing runway and taxiway geometry into conformance with the most current criteria contained in the circular at the time of a major reconstruction or rehabilitation project. This review also will focus on addressing several key considerations related to the geometry of the runways, taxiways, and the associated taxiway system. This assessment does not include any capacity modeling; but will focus on determining a design aircraft for each airport, assessing design standards conformity based on the design aircraft and conformity with geometric criteria set forth in AC 150/5300.13A Change 1. Kimley-Horn also is conducting a pavement investigation of the existing runway and taxiway pavements.

Houston Intercontinental Airport (IAH) International Terminal Redevelopment Program, Houston, TX — Manager of Projects, Executive Program Management Team. The Houston Airport System is undertaking a program to renovate and expand the Houston Intercontinental Airport (IAH) International Terminal Complex. This role involved oversight responsibility for all Projects with the ITRP and to provide leadership of the Program Management Support Services (PMSS) consultants. The ITRP projects are to be delivered using alternative project delivery methods including Design-Build and Construction Manager at Risk.

Hamad International Airport Phase 2 Terminal Expansion Design, Doha, Qatar — Project Director. Responsible for providing complete engineering design services for the Hamad International Airport Phase 2 Passenger Terminal Complex Expansion Program to increase the airport capacity from 24 MAP to 53 MAP.



Tom Fucigna

Wetlands and Protected Species, Permitting and Agency Coordination

Representative Experience

Broward County General Aviation, Pompano Beach Airpark and North Perry Airport, FL

Wildlife surveys, protected species (gopher tortoise) relocation and habitat management plans.

Lantana General Aviation Airport, Palm Beach County, FL — Wetland assessments, environmental regulatory permitting analysis, and site plan alternatives analysis for potential facilities expansion

Fort Lauderdale-Hollywood International Airport, Broward County, FL — Wildlife management plan/recommendations for construction of new stormwater management facilities, and burrowing owl relocation from taxiways and runway clear zones.

North Palm Beach County Airport, North Palm Beach County, FL — Environmental assessment and wetland delineation for initial permitting

St. Lucie County International Airport, St. Lucie County, FL — Gopher tortoise relocation and scrub jay habitat management plan at St Lucie County International Airport, for Fairwinds Golf Course Landfill closure plan, and forestry/vegetation management plan in airport buffer zone.

Florida Atlantic University, Palm Beach County, FL — Gopher tortoise and burrowing owl relocations and habitat management at Florida Atlantic University upland preserve area, directly adjacent to Fort Lauderdale Executive Airport.

Marine Corps Base Camp, LeJeune, NC — Compilation of airspace and aviation noise issues as part of a Cumulative Impacts Analysis for coastal North Carolina, as part of the Draft Environmental Impact Statement for a 40,000-acre expansion of Marine Corps Base Camp LeJeune, NC, for US Dept of the Navy.

Aviation Facility Environmental Support Services:

- ◆ Environmental Assessments and determinations of environmental regulatory permitting requirements
- ◆ Federal, state, and local environmental regulatory permitting, and agency coordination
- ◆ Wildlife and protected species surveys, management plans, and relocation
- ◆ Vegetation cover type mapping and habitat management plans
- ◆ Wildlife Management at Airports assessments and plans
- ◆ Wetland delineation, mitigation plans, permitting, and success monitoring
- ◆ Preserve area management plans
- ◆ Protected species occurrence surveys, habitat assessments and management plans, Section 7 consultation and relocation permitting of a variety of protected species, including gopher tortoise, burrowing owl, scrub jay, bald eagle, red-cockaded woodpecker, wading birds, caracara, woodstork, and eastern indigo snake.

Special Qualifications

- 30 years of experience
- Environmental assessment, natural resource definition, habitat mapping and impact assessment in upland, wetland, coastal and offshore habitats.
- Protected species surveys, habitat management plans, permitting, and protection plans
- Permit feasibility and alternatives assessment studies
- Wetland delineation, permitting, and mitigation plans
- Preparation of Environmental Impact Statements and Environmental Assessments, permit applications, and reports summarizing study results and recommendations

Professional Credentials

- Bachelor of Science, Marine Sciences, Southampton College of Long Island University
- Florida Fish and Wildlife Conservation Commission Authorized Gopher Tortoise Agent Permit Number GTA-09-00224E



Brad Tompa, P.G.

Environmental Site Investigation and Rehabilitation Services

Representative Experience

EPA Brownfields Assessment Grant, Contract Manager, Jacksonville, FL — Successfully managed the City's Brownfield Assessment Grant which was closed out in 2018. The Grant completed 16 Phase I ESAs and 5 Phase II ESAs which included twenty-six parcels of property, totaling approximately 20 Acres and 568,347 square feet of building space in Downtown Jacksonville. Supplemental assessments, asbestos survey and vapor intrusion evaluations were also completed. Assessments supported 16 properties marketed, one building demolished, two new businesses started, 25-30 new jobs were created to date, 33,577 square feet of commercial property repurposed and 322 new approved residential housing units. Two properties estimated at \$16.5 Million in leverage value are associated with grant partnerships and program benefits. A creative approach to brownfields and the ability to leverage local partnerships has helped facilitate property transactions and redevelopment deals during the lifespan of this grant. Brad continues to serve as a support arm for the City's redevelopment goals throughout the project area (See Park View Inn and Clark Property below). Brad organized and hosted several outreach events to educate the local community and engage property developers and real estate professionals on the benefits of the grant. A site inventory ranking system which prioritizes eligible properties for assessment based on regulatory and property-specific information as well as field observations was developed under the grant.

Florida School for the Deaf and Blind, Bioremediation, FL — Project manager for bio-remediation of 20-year old chlorinated solvent release. The Project was taken over approximately 5 years ago after little progress had been made in remediating the site. After an evaluation of water chemistry and an evaluation of the viability of the genetic strains of bacteria present to complete the reductive dechlorination/halorespiration breakdown of vinyl chloride to ethene, a bio-augmentation plan was developed. Selected areas were injected with a substrate and Dehalococcoides (strain VS) to accelerate site remediation. A year of monitoring has indicated that the contaminant plume has been reduced in size and is not moving. The site is now undergoing Risk Management Option closure which should be completed by 2019.

Flagler Economic Enhancement District, EPA Brownfields Coalition Assessment Grant Contract manager. The U.S. EPA awarded the Flagler County Economic Enhancement (FEED) Coalition, comprised of Flagler County, City of Bunnell and the City of Palm Coast a \$600,000 Brownfields Assessment grant to support to the Coalition's efforts to provide community-wide hazardous substance and petroleum assessments on multiple properties in the community. Services provided included programmatic assistance and EPA-required reporting. Task under the grant included the preparation of an EPA Generic QAPP, Site-Specific QAPPs, and associated Health and Safety Plans for assessment projects. Additional program support included Brownfield site selection/inventory, Assessment, Cleanup and Redevelopment Exchange System (ACRES) database reporting. Phase I environmental site assessments (ESAs) were completed on 25 properties within the Brownfield Redevelopment area. Additionally, 5 Phase II ESAs and two reuse plans were completed. The properties included an old dry cleaner, salvage yard, used car lot, auto paint shop, landfill activities, and a former railroad site. All assessment activities were completed in accordance with the EPA all appropriate inquiry (AAI) Rule, to identify recognized environmental conditions that may hinder the proposed acquisition and redevelopment of the sites. Several sites included jurisdictional wetlands determination and asbestos surveys.

City of Live Oak EPA Brownfields Assessment Grant, Live Oak, FL — Prepared a Brownfield Assessment Grant for the City which won funding in the FY 2014 cycle. Worked closely with City

Special Qualifications

- Has 28 years of experience in environmental consulting and managing Brownfield projects
- Experience includes cooperative negotiations with regulatory agencies regarding Brownfield Site Rehabilitation Agreements (BSRA) and Site Closure
- Areas of expertise include Phase I and II Environmental Site Assessment and Evaluation; Industrial Compliance/Environmental Management Systems; Site Remediation; Petroleum Contamination Assessments; Health and Safety Plans; Landfill Groundwater and Gas Migration Monitoring and Assessment; Spill Prevention Control and Countermeasures (SPCC)

Professional Credentials

- Master of Science, Geochemistry, The University of Alabama
- Bachelor of Science, Earth Science, Columbus State University
- Registered Professional Geologist in Florida, #2720

Brad Tompa, P.G.

Representative Experience Continued

personnel to develop a compelling and well thought out grant application that highlighted the City's needs and goals for a Brownfield grant. Based on EPA comments, the grant was one of the highest scoring submittals in EPA Region IV.

Parkview Inn, Multiparty Brownfield Site Redevelopment Agreement — Environmental Consultant for site development under a multi-party BSRA. The Parkview Inn is a former Manufactured Gas Plant (MGP) site that, despite its ideal location, has struggled with redevelopment due to environmental issues. Assessed under the City's Brownfields Grant the site is moving towards redevelopment. Through the City's Brownfield Program, partnerships have been created between key stakeholders in the redevelopment process – Florida Department of Environmental Protection (FDEP), City officials, economic development professionals, and developers. This has led to the development of a multi-party BSRA that allows remediation and potential regulatory closure of a parcel that is part of a larger contaminated site.

Inn at Tallahassee BSRA, Site Remediation and Clean Closure — Project manager for the site. Implemented a strategy with site owner to carry the site through to development of a Hilton branded hotel. Assessment tasks were designed to show that arsenic present in the soil above cleanup target levels was naturally occurring background. An investigation plan was coordinated with the FDEP which included offsite background sampling, mineralogical evaluation and statistical evaluation. Upon completion, FDEP agreed that arsenic at depth was natural background. FDEP also "fast-tracked" a remedial plan that allowed remediation of selected areas. A BSRA was also prepared for the site to use Voluntary Cleanup Tax Credits. The site owner received approximately \$400,000 in tax credit including a bonus for clean closure. From initial Phase I through site closure, the project was completed in one year.

Clark Pest Control — Project manager for a legacy pesticide contaminated site that was investigated under the City of Jacksonville Brownfield grant. We are working with the developer for the remediation and reuse of the site. Plans include the completion of assessment activities, development of Remedial Action Plans and BSRA.

UH Retreat | Tallahassee, FL — Project manager responsible for a Phase I ESA for 30.95 acres of property located in Tallahassee, FL. The site is improved with 109 student apartment homes, a clubhouse, and maintenance building. The apartment homes consist of 178 individual units and range from 1,395 to 2,363 SF. Additional improvements to the site include recreational spaces and paved parking.



Denise Palmatier, P.E.

Sustainability and Resiliency

Representative Experience

Identification & Implementation of Capital Improvement Projects – Infrastructure

Maintenance Department, SFWMD, Districtwide, FL — Project manager. Identified SFWMD capital projects including pump station improvements, water management structure repairs, and project management of design of new facilities. The capital improvement projects are essential to ensure the proper operation of the regional water management system of South Florida. Responsibilities included identification, investigation, initiation and oversight of capital structure projects; developing a 5-year capital work plans for the infrastructure within the agency. Development of annual budgets for each program as it relates to operations and maintenance of the capital projects including monitoring of expenditures, working with financial managers to make corrective changes to the budget when necessary; provide engineering expertise in the review of project deliverables; field station maintenance and internal project support; provide briefing, presentation and justifications for various activities; and communication with other District Departments, US Army Corps of Engineers, local and state agencies, drainage districts, professional firms, and public interest groups as necessary.

Engineering and Construction Department, SFWMD, Districtwide, FL — Project manager for the design and construction of projects for Everglades Restoration as well as Capital Improvement projects for the Operations and Maintenance Department. Responsible for development of Scopes of Work for Design Projects, negotiations with Engineering Consultants, providing design coordination for internal and external stakeholders. In addition to Project Management for design her responsibilities continued into construction management of these same projects. Duties include meeting with contractors on project schedules, budgets, change order negotiations, pay applications, conduct weekly construction meetings, review of deliverables and submittals and coordination with internal and external district clients and end user groups.

B-66 Tower and Shelter Replacement — Lead project manager for South Florida Water Management District for the project management for the design of a new 169' telecommunications tower for the District's emergency operations that complied with current performance criteria and provided for antenna load capacity that met the immediate and long term telemetry and communications needs. In addition, this project included replacing the existing communications equipment building with a new 1600 sf office building providing sufficient space for power and communications needs and also included an emergency generator room. The project also included demolition of the old 150' tower and shelter.

Emergency Operation Center HVAC Improvements, Palm Beach County, FL — Lead project manager for the Design and Construction of Trane 156-ton chiller and its associated chilled water piping and the replacement of two existing air cooled condensing units (CAC-1 and CAC-2) and replacement of two existing computer room air conditioning units (CRAC-1 and CRAC-2) with new Liebert condensers and conditioning units. In addition, the existing chiller/condenser enclosure structure modifications which included steel and reinforced concrete to accommodate the new larger equipment. This project also providing modifications to the existing chilled water piping to provide sufficient capacity of chilled water to the three existing Trane air handlers, three Liebert control room air conditioning units (CRAC-1, 2, & 3), two UPS room air conditioning units (UPS CRAC A & B).

Restoration Strategies G-251 Bolles Canal (L-16) Phase I Improvements, Segments 1 and 2,

Palm Beach County, FL — Denise served as the Lead Project Manager for the District's Bolles East (L-16) Canal Conveyance Improvement Project to improve the capacity of the Bolles East Canal from the

Special Qualifications

- Has 27 years of experience in the planning, design and construction management of water restoration and capital improvement projects for storm water treatment and flood control projects
- Engineering background includes water resource projects and water treatment areas as well as the infrastructure associated with flood control and associated communications
- Skilled at planning and feasibility studies, permitting, scheduling and cost estimating, public outreach and involvement on environmental projects

Professional Credentials

- Bachelor of Science, Civil Engineering, University of Florida
- Professional Engineer in Florida #51252

Denise Palmatier, P.E.

Representative Experience Continued

Hillsboro to the North New River Canal. These canal conveyance improvements included widening and deepening of the Bolles Canal to improve conveyance south to the STAs and the A-1 FEB. The Project included coordination with over 15 landowners located within and along the 9-miles of the District's Bolles Canal existing right of way. This effort required close coordination with the design team and the local landowners for the relocation of their farm roads and seepage canals outside of the new canal footprint and District ROW. As part of this project Denise coordinated and negotiated a Temporary Construction Easement with all 15 landowners for the successful and timely completion of the full 9-mile segment of the project. The organization as well as the timeframe of the Roadmap with some being "quick hits" that can be immediately initiated, others that are mid-term in time and others which involve a longer term process. The gap projects are not purely technology and software but also touch workforce management issues, policies and stakeholder engagement.

Beyond the addition of gap projects there were other opportunities that were identified to be accelerated as Tampa Bay Water moved along the Roadmap path. These included accelerating the deployment and linkage of planned Supervisory Control and Data Acquisition (SCADA) projects, instituting pump prioritization, expanding the tools used for management and reporting of energy and continuing to focus on energy in facilities and in vehicles.

SFWMD Design and Installation of Emergency Forward Pumps, Glades, Hendry and Palm Beach Counties, FL — Lead project manager for the Design, Manufacture and Installation of 14 electric submersible pumps at three sites (S-351, S-352 and S-354) located on the south side of Lake Okeechobee providing a total of 1400 cfs pumping capacity for water supply to the Palm Beach, North New River, Hillsboro and Miami Canals. During severe drought conditions when lake levels drop below 9.0 ft it is necessary to install pumps to provide agricultural and urban water supply. This design involved retrofitting of the existing water control structures S-351, S-352 and S-354 with horizontal axial flow pumps supported by structural steel bulkheads. Each bulkhead required two pumps and were installed in the downstream needle beam recess of the structure's stilling basin bay. Each pump had a 100 cfs capacity at an approximate total head of 6.0 ft. Project also included for new electrical equipment necessary for the operation of the pumps.

Jupiter Community Park Master Plan, Jupiter, FL — Project engineer. Kimley-Horn was retained by the Town of Jupiter to conduct a master plan of Jupiter Community Park in association with their Community Investment Program. Our services include data collection, meetings with Town staff and other stakeholders, and developing a master plan document.

SW 10th Street PD&E Study (Sawgrass to I-95), FDOT District Four — Project engineer for Kimley-Horn's services as a subconsultant to another firm for this politically charged PD&E study in Broward County. The study's goal is to look at options to provide connectivity between Florida's Turnpike, Sawgrass Expressway, and I-95 — three major limited-access, SIS facilities in South Florida. Other goals include enhanced local access for businesses and communities; provisions for multimodal, bicycle and pedestrian facilities; provisions for future express bus service; and design services to increase capacity and eliminate existing operational and safety deficiencies along SW 10th Street.

Short Circuiting Repairs for Stormwater Treatment Area 5 (STA5), South Florida Water Management District (SFWMD), Hendry County, FL — Lead project manager for the design and implementation of a restoration project for the mitigation of short circuiting within STA 5. The STA had several lower elevation slough areas that ran through the southern section of Cell 1A. Soil to fill in the slough was removed from a non-effective treatment area of the STA and imported to the lower areas. The project included excavation and transport of 407,000 cubic yards of material and included detailed coordination of District field equipment and staff so the work could be performed with internal resources. The STA and borrow areas were dewatered, a controlled burn was done in the borrow area prior to clearing and grubbing. Material was excavated using several 3 CY excavators and D6 Bulldozers; then transported using (15) - 25 CY articulated dump trucks, and then placed into the short circuiting deep areas to fill the deep zones. The areas were laser leveled prior to project completion. Project was brought in on time and with a surplus budget of \$400,000, which was used to purchase two new backhoe pieces of equipment for the field station.



Jason Sheasley, P.G.

Environmental Site Investigation and Rehabilitation Services

Representative Experience

Class V Drainage Well System Dania Pointe Development, Dania Beach, Broward County, FL — Served as the lead hydrogeologist for the design of a storm water system servicing a 100-acre mixed-use development in Dania Beach, Broward County. The use of drainage wells for storm water management was critical to the development of the Site. Without the drainage well system, the constructability of the Site would be significantly diminished. Furthermore, the design of the system was complicated by the fact that the G-III aquifer is not continuous across the entire site. Therefore, Kimley-Horn was responsible for preparing a Reasonable Assurance Report demonstrating that favorable conditions were present in the northeast portion of the Site and securing regulatory approval for the drainage wells. Additionally, Kimley-Horn prepared a numerical ground water model to simulate the operation of the drainage well system and the potential effects on the City of Dania Beach's nearby wellfield.

Dania Pointe Stormwater Disposal Wells, Broward County, FL — Kimley-Horn is in the process of permitting approximately 50 stormwater disposal wells for the Dania Pointe project in Dania Beach, Broward County, Florida. Dania Pointe is a 102-acre mixed used development located in the City of Dania Beach. Upon its completion, Dania Pointe will include nearly one million square feet of retail and restaurant space in addition to Class A office, hotels, luxury apartments, and public event space. The master stormwater plan for the project includes the use of more than 50 stormwater disposal wells. Kimley-Horn is responsible for coordinating the hydrogeologic investigation and permitting efforts for the disposal wells. The work completed thus far includes completion of a study to evaluate the prevailing hydrogeologic conditions on the site. This included installing multiple boreholes and test wells across the property which were used to conduct aquifer performance tests and collect groundwater quality data. Paramount to the study was the delineation of the nature and extent of the G-III aquifer that underlies the underground source of drinking water (USDW) at the site. Additionally, data collected during the investigation was used to evaluate the confining layer present between the G-III aquifer and the USDW. The hydrogeologic study resulted in a Reasonable Assurance Report that documented the prevailing site conditions and justified the use of stormwater disposal wells on-site. Kimley-Horn submitted a permit application to the Florida Department of Environmental Protection's Underground Injection Control (UIS) section for the construction of the Class V wells.

Dania Pointe Brownfield Site, Broward County, FL — The Dania Pointe site is a 102-acre mixed use development located at I-95 and Stirling Road in Dania Beach. When completed, the development will encompass nearly 1 million square feet of retail and restaurants in addition to Class A offices, hotels, and luxury apartments. The majority of the site was mined for sand and gravel between 1940 and 1975. After the mining operations ceased, the mined areas were backfilled with solid waste, construction and demolition debris, and landscaping waste. Geotechnical surveys confirmed the presence of solid waste and debris in the subsurface. Environmental due diligence activities confirmed the presence of localized soil and ground water contamination on the site. The site is located within the Dania Beach Brownfield Area. The identified contamination is being addressed under a Brownfield Site Rehabilitation Agreement. Kimley-Horn is responsible for assessing the extent of the contamination and preparing a remedial action plan for the Site. One of the principal challenges for the project is to address the identified contamination in a manner that facilitates the proposed construction and development. As such, Kimley-Horn's proposed remedial strategy is designed to take advantage of certain construction methods to facilitate remediation. Assessment and remediation of the site is on-going.

Special Qualifications

- Has 27 years of experience in water resources, hydrogeology, contaminant hydrogeology, and geology
- Managed geologic and hydrogeologic investigations for the characterization of subsurface contamination at commercial, industrial, and government sites nationwide
- Experience with environmental compliance under RCRA, CERCLA, and state hazardous waste program
- Experience with due diligence Phase I and Phase II environmental site assessment reporting
- Experience in the development of brownfield sites and environmentally-impacted properties

Professional Credentials

- Bachelor of Science, Earth and Environmental Science, Wilkes University \
- Professional Geologist in Florida, #2236
- Hazardous Material Site Worker Course
- OSHA 40-Hour HAZWOPER Training

Jason Sheasley, P.G.

Representative Experience Continued

Office Depot, Inc., Delray Beach, FL — Conducted site assessment to evaluate localized soil and groundwater quality. Initiated interim source removal to remove contaminated material from the site. Developed a remedial action plan to address localized groundwater contamination. Prepared and submitted documentation to regulatory agency. Kimley-Horn provided assessment and remediation services for a contaminated site under Chapter 62-780, FAC.

Environmental Due Diligence, Indian River County, FL — Quality control manager for the environmental due diligence work undertaken by Kimley-Horn on behalf of Indian River County. Provided technical oversight for several Phase I and II environmental site assessments conducted on properties under consideration by the County. Reviewed Phase I and II environmental site assessment reports prepared for the County. Provided recommendations to the County based on the due diligence findings.

Emergency Source Area Removal for Florida Rock Industries, Inc., Bunnell, FL — Coordinated and supervised emergency source area removal activities associated with the Florida Rock concrete plant in Bunnell. The emergency activities included free-product removal and soil excavation and disposal. Further examined the extent of soil and groundwater impacts associated with the identified contamination. Coordinated the source area removal and characterization activities with the ongoing construction work. Advised Florida Rock and the contractor on the proper management and mitigation of the contaminated media. Developed construction techniques to preclude further exacerbation of the contamination. This project required a quick response to conduct an assessment of soil and groundwater contamination, along with free product recovery and soil removal at an active construction site. An industrial manufacturing facility was being constructed on vacant property with partially demolished buildings. During the initial site construction activities, the site contractor discovered petroleum free product while removing the concrete foundation of an abandoned structure. Kimley-Horn was able to respond within hours, advising the contractor to continue site work in a different part of the site and not to further disturb the area of concern. A site inspection was completed that afternoon, after which Kimley-Horn held a meeting with the property owner, general contractor, and site contractor.

Jaxson Brown/HASSCO Rehabilitation Brownfield Site, Jacksonville, FL — Member of the Kimley-Horn team for assessment activities at this Brownfield site that was operated as a landfill in the 1970s. The site was an abandoned property and the landfill cap was extensively breached when originally purchased by client. Kimley-Horn developed a plan to address environmental concerns such as groundwater and soil impacts, along with wetland encroachment, while still devising a plan for useful land development. We reduced the potential for environmental impacts by preparing a plan to develop the property with minimal impact to existing subsurface waste, thereby creating a “win-win” situation for both FDEP and the client.

Jones Pier Phase I and II Environmental Site Assessments (ESAs), Sebastian, FL — Geologist for the assessment and remediation of the former Jones Pier site in Indian River County under Chapter 62-780, Florida Administrative Code. The historical use of the Jones Pier site as a tree nursery resulted in pesticide impacts to the localized soil. An extensive site assessment was conducted to assess the extent of the pesticide concentrations in the soil. This was followed by a groundwater assessment to confirm that the contaminants had not leached into the groundwater. Developed a remedial strategy for the site which incorporated the County’s intended use of the property for land preservation. Prepared and submitted site assessment reports and a remedial action plan for the site which were approved by FDEP.

Wauchula EPA Brownfields Assessment Program Consulting, Wauchula, FL — As project hydrogeologist, Jason assisted with preparing a Brownfields Assessment Grant application to assess hazardous substances and petroleum contamination at various sites within the designated enterprise zone for the City of Wauchula. After receiving a \$400,000 grant, the City selected Kimley-Horn to complete tasks under the grant, including Phase I and Phase II Environmental Site Assessments (ESAs) at designated sites; preparing site-specific Quality Assurance Project Plans (QAPP) and Health and Safety Plans (HASP) to meet EPA and FDEP standards; preparing monthly and quarterly report documentation for submittal to EPA; Brownfield Site Rehabilitation Agreements (BSRAs) development and negotiations; and assisting with negotiating assessment requirements with the EPA and FDEP on behalf of the city. Additional services included community outreach/stakeholder involvement, risk assessment reporting, asbestos and lead-based paint surveys, and cleanup and redevelopment plan generation.



Jill Capelli, P.E.

On-Call Program Management

Representative Experience

Broward County Aviation Department, Airport Planning Consultant Services, Broward County, FL — Deputy project manager/lead landside planner. Jill is part of a multifirm team providing planning support services for both Fort Lauderdale-Hollywood International Airport (FLL) and North Perry Airport (HWO). Jill led a detailed near-term study of the terminal access roadways, parking, curb operations, pedestrian/vehicle interaction, and ground transportation interface with roadways to identify near-term actions to mitigate growing congestion on the terminal roadway system at FLL.

Broward County Aviation Department, Fort Lauderdale-Hollywood International Airport Terminal Access Roadways, Curbfront, and Parking Short-Term Improvements, Fort Lauderdale, FL — Project manager. Terminal landside analysis and congestion mitigation planning was performed to analyze and conduct extensive vehicle movement simulations of the upper and lower terminal access roadways and all points of interface with airport parking garages, Consolidated Rental Car facility, Ground Transportation Centers, bus and taxi staging areas, and ridesharing. The purpose was to identify and mitigate increasing congestion and reduction in level of service. Conducted traffic counts and observations of roadway and curbside operations including vehicle and pedestrian interaction. Options considered and recommended included curbside operational enhancements, changes in the exit from the CONRAC to the terminal road, improved signage, flexing use of upper and lower roadways through blue-tooth technology and dynamic signage, restriping to provide an additional exit roadway lane, addition of a new lane, and mitigation of pedestrian impacts to traffic flow.

Fort Lauderdale-Hollywood International Airport, General Engineering Consulting Services, Fort Lauderdale, FL — Project engineer. Kimley-Horn has been working as a consultant for Broward County for many years, both as a prime task-specific consultant, as well as in a subconsultant role. Projects which are currently ongoing or have been completed within the past five years include closed circuit television camera (CCTV) deployment, relocation of Gates 100 and 101, and the rehabilitation of the Palm Garage.

City of Fort Lauderdale Executive Airport (FXE) General Engineering Consultant, Fort Lauderdale, FL — Project engineer. Kimley-Horn prepared an airfield safety, security and access study for FXE. The goal of this study was to develop a plan that would improve airport safety and reduce surface incidents by implementing an improved access control and security system into the FXE airside area. Based on the stated objective and goals of FXE, we recommended an implementation package that best supported the goal of reducing surface incidents into the movement area and provided FXE with the desired level of safety and security. The City of Fort Lauderdale used this study to prepare plans for new gates and fencing around the airport in house. They then contracted with Kimley-Horn to prepare plans and provide construction phase services for the access control and fiber optic communications system. This system included a fiber optic loop around the airport connecting 31 automatic vehicle gates to a centrally located computer system. The new system included a badging system and allows for full monitoring and control of the gates from the airports central office location. The fiber optic system included redundancies that allowed the system to continue to operate even if the fiber was broken. After completion of the fencing and fiber optic communications system, the City asked Kimley-Horn to update the initial study based on changing security needs and technologies. After completion of that update, Kimley-Horn prepared construction plans for a new security camera system to monitor all automatic vehicle gates and the downtown helistop as well as wireless monitoring of all manual gates.

Special Qualifications

- Has 19 years of experience with traffic engineering and transportation modeling/planning
- Project management experience with the planning, design, and deployment of communications networks and their subsystems that comprise computerized traffic control and management systems and security systems
- Experienced with simulation modeling, intersection analysis, and training in multimodal simulation software
- Has applied her computer modeling experience to security for “hot spot” analyses of the security checkpoints and baggage claim areas at airports

Professional Credentials

- Master of Science, Civil Engineering, University of Kentucky
- Bachelor of Science, Civil Engineering, U.S. Coast Guard Academy
- Professional Engineer in Florida, #62365

Jill Capelli, P.E.

Representative Experience Continued

Fort Lauderdale-Hollywood International Airport, Virtual Taxi Hold Lot Assessment, FL — Project manager. Jill completed was a feasibility study for a virtual taxi hold lot at the airport. Taxi companies and transportation network companies (TNCs) were interviewed to discuss their operations approach to queueing. A concept of operations was discussed to evaluate and document the applicability of a virtual taxi hold lot at the airport.

Fort Lauderdale-Hollywood International Airport (FLL) Airport Operations Control Center (AOCC) Concept of Operations, Fort Lauderdale, FL — Project manager. Kimley-Horn is providing a planning level effort to develop a Concept of Operations document for the modification of the existing AOCC. The intent of this project is to identify and document the short- and long-term operations and the supporting requirements for the AOCC, including opinions of probable cost. The program definition and requirements for the AOCC will be summarized in the Concept of Operations Document. The tasks include facilities reviews, a series of stakeholder workshops, technology research, definition of requirements, and documentation.

Pompano Beach Airpark Continuing Services (including Runway 15-33 Rehabilitation), Pompano Beach, FL — Project engineer responsible for providing pavement assessment services for Pompano Beach Airpark in Broward County. Kimley-Horn has provided consulting services to this airport for more than 20 consecutive years. Recently completed tasks include a capital improvement plan update, airfield signage and lighting improvements, Taxiway Lima rehabilitation, Taxiway Mike extension, construction of T-hangars for private fixed based operator, and a five-year pavement maintenance management program.

Miami International Airport Security Simulations, Miami, FL — Miami International Airport Security Checkpoint Simulation Manager – Served as project manager. Simulated and analyzed the passenger capacity at the four security screening locations of the Miami International Airport, South Terminal, evaluated the existing pedestrian demand to capacity and proposed staffing plans based on the existing activity levels.

Broward County Advanced Traffic Management System (ATMS) Communications Design, Broward County, FL — Project engineer. This project involved the development of plans, specifications, and estimates for the construction of a countywide fiber optic mesh topology Ethernet/IP communications deployment. Involved in the second phase of the project that included design of signal connections, DMS, cameras, and other control devices. The project also included the development of a System Engineering Management Plan.

Fort Lauderdale-Hollywood International Airport Master Plan Update, Fort Lauderdale, FL — Project manager for Kimley-Horn's services for the preparation of a comprehensive master plan update for the Fort Lauderdale-Hollywood International Airport (FLL). This master plan will position the airport for long-term success and operational sustainability. We are leading several master plan components including situational analysis and airport visioning to identify the airport's strengths, weaknesses, threats and opportunities; an assessment of the off-airport and regional transportation needs; an assessment of the terminal roadway system; and demand/capacity assessment and identification of current and future requirements airport facilities. This effort included an extensive inventory of existing conditions and outreach to the various tenants and operators.

Pinellas County, St. Pete-Clearwater International Airport, Master Plan, Clearwater, FL — Project manager. As a subconsultant, Kimley-Horn is providing landside planning for the terminal access and curbside roadways, parking, and rental car facilities in support of the terminal area master plan. The facilities that are being studied include the terminal area curbsides and access roadway, short- and long-term parking lots, economy parking, employee parking, and rental car facilities and parking. The study will focus on documenting the existing landside conditions, assessing terminal and access roadways, and parking areas to identify congestion points, and develop improvements to mitigate the identified congestion points. For the rental car facilities, Kimley-Horn will compare capacity and future demand and identify future requirements for terminal counters, booths, ready/return spaces, quick-turnaround (QTA) facilities, remote storage/maintenance, and access and traffic patterns for jockey trips.



Pam Turner, GISP

On-Call Program Management

Representative Experience

City of Miami Capital Improvement Program Application, Miami, FL — GIS Manager. The City of Miami, Capital Improvement and Transportation Department wanted to improve the efficiency of their existing procedures used to maintain, display, and update the City's Capital Improvement Program (CIP) projects through the development of an interactive web-based GIS application. The application allows staff to edit, monitor, and provide status reports of the CIP projects within the City. The application is hosted on the City's servers and training was provided to staff. Application features include: Feature identification tool, multiple templates for printing, multi-level query and summary tables, ability to generate custom tables, individual project fact sheet (reporting), parcel/project buffering selection option, and user-friendly web-based editing capabilities. Pam worked on all phases of the project, including oversight of the development and coding of the application, user training, and backend database management.

City of Miami Web-Based Interactive Capital Improvement Program (CIP) GIS Application, Miami, FL — Project manager. Kimley-Horn prepared a vision for a suite of landside technology deployments to support overall mobility both within the LGA's campus and connecting to the regional transportation network. The result of this visioning process is a vision document that serves as a road map for the deployment of a series of cohesive, integrated landside technologies that will serve the access requirements of the redeveloped facility over the near, mid-term, and long-term horizons. This vision document is not intended to be a master plan itself, rather to be viewed as a precursor to an eventual Landside Access and Mobility Master Plan.

Hillsborough County Transportation Improvements Surtax GPC, Project Prioritization & Implementation Framework Support, Hillsborough County, FL — Kimley-Horn has been contracted to provide on-call planning and engineering support to Hillsborough County. Upon recent adoption of the 1% Transportation Improvements Surtax in Hillsborough County, Kimley-Horn has been working as an extension to County staff in the development of a clear and transparent methodology for prioritizing and ranking the qualified transportation projects. As part of this effort existing prioritization methods used in other local and long-range planning efforts were reviewed and modified to incorporate new requirements needed to qualify a project for funding. Derived from the County Charter Amendment, projects were first separated into three main categories; 1) Maintenance and Vulnerability, 2) Congestion, Safety and Network, and 3) Remaining Funds, in which different weighting prioritization criteria was then applied to rank the individual projects within each category. The initial stages of support included review and update of the existing GIS database of project information, confirming project limits and project descriptions. Kimley-Horn worked directly with the County GIS department to establish best management practices and consistent naming conventions for the database at the start of the project. Data was able to be shared and updated in real time by working directly in the County's online ArcGIS Enterprise Portal project group setup as part of this project, limiting the need to extract and export multiple copies of data. The online Portal allowed for quick review by staff when prioritization and ranking results were updated, as the County always had access to the most up-to-date information. These efforts are ongoing as the County continues to adjust their initial project prioritization methods as new projects are identified and programmed annually. Supplemental deliverables have included, individual project summary fact sheets (shown below), social and economic assessments, screening methodology reports, funding program spreadsheets, presentation development for public outreach and County Board review and coordination.

Special Qualifications

- Has 18 years of experience in GIS applications with specialties in environmental analysis, water resources, transportation planning, and disaster management applications
- Worked extensively with GIS and used the software to support military clients, including the management of the spatial component of asset management databases for multiple installations

Professional Credentials

- Master, Geographic Information Systems, Pennsylvania State University
- Bachelor of Science, Environmental Science, Dickinson College
- Geographic Information Systems Professional #00064094
- ESRI, Learning Visual Basic Applications for New ArcGIS Developers
- ESRI, Creating, Editing, and Managing Geodatabases for ArcGIS Desktop
- ESRI, Introduction to Geoprocessing Scripts using Python

Pam Turner, GISP

Representative Experience Continued

City of Hampton, Fort Monroe Redevelopment Project, Hampton, VA — GIS Specialist. The U.S. Army transitioned out of Fort Monroe in 2011 as part of the federal base realignment and closure process. Kimley-Horn assisted the Fort Monroe Federal Area Development Authority with transportation, infrastructure, and flood protection planning assessments as the Fort was planned for reuse. The approved reuse plan includes residential, recreational, office, retail, and potential hotels in a historic district. Five essential areas of focus are protecting the historical significance of Fort Monroe; assuring the property is open and accessible; establishing a large-scale open park space; seeking economic sustainability; and allowing new development within strict limitations.

ADOT Cycle Arizona Bicycle User Map Update (2017), Statewide, AZ — GIS Specialist. The Arizona Department of Transportation (ADOT) Multimodal Planning Division (MPD) selected Kimley-Horn to perform an update of the 2009 Cycle Arizona Bicycle User Map. Kimley-Horn created the 2009 version of the map, which provided shoulder width, grade, and traffic volume information for state highways. The map, which is also available online, included information about points of public interest, safety tips, and Arizona bicycle laws to aid map users. Kimley-Horn updated the Cycle Arizona Bicycle User Map to reflect projects completed since 2009 and other changes in conditions. Upon completion, Kimley-Horn facilitated printing a minimum of 10,000 copies for hard copy distribution of the new map, and our team developed a scalable online, mobile-friendly version of the map.

American States Utility Services, Inc. (ASUS) CAD/GIS Support Services, Nationwide, US — GIS Specialist. Kimley-Horn currently is providing GIS support services to American States Utility Services, Inc. (ASUS) as part of a pilot project to estimate effort for an annual GIS services contract. Kimley-Horn receives record drawings in CAD, PDF, or hard copy format from three subsidiaries: Fort Bliss Water Services Company (FBWSC), Palmetto State Utility Services (PSUS), and Old North Utility Services (ONUS). Kimley-Horn converts the record drawings into a standardized ESRI geodatabase format matching the ASUS subsidiary schema and provides the updated files back to the subsidiary. Where GIS is not currently being used at the subsidiary, Kimley-Horn edits the files in CAD software and returns the data as an AutoCAD drawing.

In addition to updating GIS inventory information through digitization of record drawings, Kimley-Horn has been providing assistance to ONUS with their internal web-based GIS. This effort includes updating existing services, creating new services, editing viewer code, and adding data as needed. We also provided a training session to Old Dominion Utility Services (ODUS) on GIS best practices.

Broad River Water Authority, Asset Management Needs Assessment and Gap Analysis, Spindale, NC — GIS Specialist. Kimley-Horn was contracted to perform an asset management gap analysis and needs assessment in 2016. We provided an on-site review of the current data, software, and asset management procedures currently in use at BRWA to understand gaps that might hinder the creation of a comprehensive asset management plan. This included evaluating the data for completeness and reviewing existing information on asset condition and work order/maintenance history. The BRWA system includes an 8 MGD capacity water treatment plant, approximately 250 miles of pipeline, and three elevated storage tanks. After completing the assessment, Kimley-Horn worked with BRWA to understand their top priorities for an asset management software program. The priorities included function, cost, supporting software, overall technical platform, and hardware requirements. Based on these discussions, we compiled a report to outline data gap area and identify new hardware, software, data, and/or procedures that may be needed in the future to enhance BRWA's system. Our report includes a matrix of software vendors that could meet BRWA's asset management program needs.

California Public Utilities Commission (CPUC), Railroad Crossing Inventory and Field Survey, Statewide, CA — GIS Specialist. Kimley-Horn was selected as a subconsultant to conduct a systematic inventory update of both the CPUC and the United States Department of Transportation (USDOT) highway-rail crossing databases at the identified active, public, at-grade crossings throughout the State of California—an estimated 4,500 active crossings. Kimley-Horn completed Phase 1 of a comprehensive, statewide analysis, which involved inventorying an identified 1,557 crossings. This included the development of safety and procedural training programs for field crews, a survey of identified crossings, collecting data, reviewing data, field visits to obtain accurate measurements, taking specified photographs, and collecting other on-site data. We developed an innovative database that was accessible to all field crews simultaneously using the Collector for ArcGIS tool. The project also involved coordination with local roadway authorities and railroads.



Sarah Johnson

Agency Coordination, NEPA

Representative Experience

Poinciana Parkway Extension/I-4 Connector, FL — Environmental scientist providing protected species surveys and NEPA documentation of findings in the Natural Resources Evaluation report. Kimley-Horn conducted a Concept, Feasibility and Mobility Study for this planned expressway which widens the existing Poinciana Parkway and extends it to I-4. Existing environmental and physical constraints were identified, which included mitigation banks, cemeteries, and extensive utilities. Alternative alignments were developed to minimize impacts and these alternatives are currently being evaluated. Due to development, a cemetery and utility constraints, a critical factor for determining feasibility of the expressway is its interchange connection to I-4; therefore, interchange concepts were developed to determine the feasibility of tying into I-4 at two different locations. Extensive stakeholder meetings and coordination occurred with property owners, utilities, developers, local governments, FDOT and Florida's Turnpike. Protected species surveys were required including crested caracara nest surveys.

SR 659 (Combee Road) PD&E Study from US 98 to Skyview Drive, FDOT District One, Lakeland, FL — Environmental scientist providing evaluation of roadway alternatives with respect to wetland and protected species involvement and documentation of findings in NEPA Natural Resources Evaluation report. Kimley-Horn is performing a PD&E study to prepare design alternatives for the corridor that accommodate pedestrians and bicycles, improve transit facilities, and optimize vehicle access. The study team will analyze and assess the project's impact on the social, economic, cultural, natural, and physical environment to develop the location and design concept acceptance (LDCA) of the project in accordance with FDOT policy, procedures, and requirements.

SR 70 from Lorraine Road to CR 675/Waterbury Road, FDOT District One — Environmental scientist. Development of this project used the new FDOT SWAT process, which reduced duplicative efforts between PD&E and design. This project involved providing PD&E and design services for SR 70 from Lorraine Road to CR 675 (Waterbury Road) in Manatee County. This project's purpose was to increase capacity and improve safety on SR 70, which is a two-lane undivided roadway classified as an urban principal arterial—other from Lorraine Road to MP 10.439 and rural principal arterial—other eastward to beyond CR 675. The project included the design of two four-lane typical sections within the corridor. A suburban section from Lorraine Road to Del Webb Boulevard, and a rural section from Del Webb Boulevard to CR 675. A Level 1 roundabout screening was performed to determine if roundabouts are viable. The team provided PD&E/NEPA, roadway and structures design, drainage/permitting, environmental, S&PM/traffic/signalization, TTC, public involvement, utility coordination/SUE, geotechnical/contamination, noise analysis, surveying, and R/W mapping services.

SR 70 from Jefferson Avenue to CR 29 PD&E, FDOT District One — Environmental scientist. This project involved development of the NEPA document and support documents for the widening of an approximately 7.5-mile section of SR 70 in Highlands County. Project alternatives included the widening of the existing roadway from two to four lanes, as well as operational improvements to the two-lane section. Specific tasks included the oversight of data collection, development and review of environmental documents, and coordination with federal and state regulatory and review agencies. Key issues included impacts to multiple federal and state protected species, public lands (4(f) properties), private research facilities, and extensive utilities. Environmental documents developed for the project included wetlands, protected species, hazardous materials, drainage, noise and archaeological/historical reports, as well as the NEPA document developed for FHWA and FDOT.

Special Qualifications

- Has 15 years of extensive experience in managing and conducting public and private sector projects, biological assessments, GIS, photointerpretation, and related studies
- Experienced in environmental assessment, mitigation plans, project management, wetland and protected species surveys, NEPA documentation and permitting
- Authorized Gopher Tortoise Agent for survey, bucket traps, live traps, hand shovel excavation, backhoe excavation, and mark, transport and release
- Knowledgeable of the NEPA process and PD&E guidelines used for development of transportation projects by FDOT

Professional Credentials

- Master of Science, Zoology, University of Oklahoma
- Bachelor of Science, Zoology, Ohio Wesleyan University
- Gopher Tortoise Authorized Agent, FWC, #GTA-18-00041A

Sarah Johnson

Representative Experience Continued

Apollo Beach Boulevard Extension/I-75 Flyover, Hillsborough County, FL — Environmental scientist for the Kimley-Horn team designing the extension of Apollo Beach Boulevard from US 41 to Paseo al Mar Boulevard that will result in a 4-lane facility including the bridge over I-75 to the eastern limits of the conservation easement or approach tie-down. Environmental tasks include SWFWMD and USACE permitting, wetland delineation, preparing mitigation plans, conservation easement modification and coordination with multiple agencies. Extending Apollo Beach from US 41 to US 301 will serve as an alternative east/west connection ultimately reducing traffic demands on Big Bend Road. This work effort includes alignment and traffic studies; surveying; geotechnical exploration, testing, and analysis; preparing engineering reports with right-of-way maps and environmental documentation incorporating roadway, stormwater detention, and wetland mitigation requirements; permitting requirements; and determination of right-of-way requirements.

Tampa Bay Passenger Ferry, Tampa, FL — Environmental scientist providing design, planning, engineering, and survey services for additional feasibility analysis of the Tampa Bay Passenger Ferry project that includes developing preliminary site and business plans for at least two options for the South County Terminal location. Environmental tasks include site assessments for multiple potential sites to determine existing land use, extent of wetlands, quality of wetlands, potential species involvement and permitting constraints. Kimley-Horn is evaluating the site circulation and vehicular access requirements for the ferry passengers at the South County and MacDill Air Force Base (AFB) ferry terminals. Additionally, the team is conducting general site analysis of the proposed properties to review overall site performance—both land side and sea side—to facilitate the program, mobility options, regional network, destination access alternatives (MacDill, St. Petersburg, and Tampa) natural amenities and impacts.

Tampa Streetcar Extension and Modernization Feasibility Study and Project Development, Tampa, FL — Environmental scientist for the evaluation of the potential extension and modernization of the existing Tampa Historic Streetcar. Specific duties included using GIS to analysis the feasibility of proposed route alignments under existing and future conditions, building an evaluation matrix to compare the proposed alignments using purpose and need criteria from the City as well as FTA criteria. The study evaluated modernization options for the existing vehicles and facilities, and vehicle technology alternatives to improve ridership, operations, cost effectiveness and overall quality of service. The feasibility study coordinated with other regional transit initiatives by clearly defining the Tampa Streetcar operating parameters and identifying how it may enable future transit connections to the downtown transit center, emerging adjacent neighborhoods and to the region. The study identified transit service and mobility improvements to support livability and economic development in downtown Tampa and along the corridor.



James Pankonin, PLA, ASLA, LEED AP

Sustainability and Resiliency, Green Infrastructure

Representative Experience

Landscape Architectural Design and Construction Document Services, Charlotte County, FL

Landscape architect. Kimley-Horn was selected to provide landscape architectural design services for eight Charlotte County facilities. The scope of work includes evaluating existing facilities for code compliance and preparing landscape plans to address any code deficiencies or landscape material in need of replacement. To date, landscape renovations have been completed for Tringali Park and the Mid-County Library. Landscape plans and bid documents have also been prepared for the County Administrative Building, Charlotte Harbor Event and Conference Center, Charlotte County Justice Center, and the South County Annex.

Baker Park, Naples, FL — Project manager and landscape architect. Kimley-Horn provided full design services for Baker Park on the Gordon River in Naples. Design components include a large multi-purpose concession building, playground with integrated splash pad, Founder's Garden, day dock, canoe/kayak launch, knoll/overlook, stormwater treatment marsh, small amphitheater area, sunrise terrace, waterfront boardwalks, and a ½ mile trail connecting to the Gordon River Greenway bridge. Kimley-Horn provided landscape architecture, civil, environmental, and permitting/construction phase services for this \$14.5 million, high-profile destination.

Capital Cascades Trail, Segments 3 and 4, Blueprint 2000, Tallahassee, FL — Landscape architect. Kimley-Horn was selected to provide services relating to the design of this stormwater pollutant load and sediment abatement greenway, including effective community participation and consensus building; environmental evaluation, stormwater management, landscape, and park amenities that provide a unifying community concept; and greenway and trail connectivity improvements.

Doral Legacy Park (NW 114th Avenue Park), Doral, FL — Landscape architect on the Kimley-Horn team that prepared the conceptual plan and construction plans of an 18-acre park located on the corner of NW 82nd Street and NW 114th Avenue. The concept for the park consisted of two adjacent sites with both active and passive recreational amenities. Park amenities include the following recreational components, community center building, baseball fields, tennis courts, basketball courts, sand volleyball, soccer fields, playground, multi-use field, walkways, boardwalk, and wetlands. Engineering services include site grading and layout, stormwater drainage system design, utilities, and sewer main extension.

Global Home of the PGA TOUR, Ponte Vedra Beach, FL — Landscape architect. Kimley-Horn was selected to provide professional planning and civil engineering services for the development of the new 187,000-square-foot Global Home of the PGA TOUR. In addition to the three-story Global Home building, the site will include future office expansion areas, a spectator village, as well as an admissions gate and shuttle drop-off zone. Kimley-Horn is providing entitlement planning, engineering, and permitting services. The scope of services also includes roadway design, traffic engineering, signal design, civil/site plans, and construction phase services. Kimley-Horn is coordinating permitting for the Global Home project through St. Johns County, St. Johns River Water Management District (SJRWMD), and the U.S. Army Corps of Engineers (USACE).

Lashley Waterfront Park and Marina, Punta Gorda, FL — Landscape architect for the Kimley-Horn team that provided design development services and construction drawings for this active park along the Peace River. After consensus on the Harborside Project, the selected concept plan was refined based on final comments received by staff, council, and the stakeholders. This park includes a marina building, promenade, boat ramp, plazas, specialty paving, open air pavilions, landscaping, irrigation,

Special Qualifications

- Has 15 years of landscape architectural experience, including site planning, streetscape design, parks and recreation design, hardscape design and custom detailing, construction document preparation, construction phase services, project team coordination, and preparation of presentation graphics
- Assists in developing maintenance guidelines to be used by public staff and private citizens

Professional Credentials

- Bachelor of Landscape Architecture, Landscape Architecture, University of Georgia
- Professional Landscape Architect in Florida, #LA6666900
- LEED Accredited Professional
- American Society of Landscape Architects (ASLA)
- U.S. Green Building Council

James Pankonin, PLA, ASLA, LEED AP

Representative Experience Continued

and car and boat trailer parking lots. Future phases are to include an interactive fountain, carousel, and streetscape elements to Nesbit Street.

Roberto Clemente Park, Miami, FL — Landscape architect. Kimley-Horn provided the renovation of this three-acre park, including a playground, parking lot, recreation building, and surrounding landscape, as well as a new 8,000-square-foot building. Features on the site include baseball/softball fields, basketball courts, playgrounds, and connection to a waterpark.

Tom Bennett Park, Manatee County, FL — As landscape architect, worked closely with Manatee County staff and adjacent property owners to develop a master plan for active and passive recreation in this 150-acre waterfront park. The project also required substantial environmental restoration of the waterfront. Key design elements included a civic open space and amphitheatre; several miles of trails and waterfront promenades; active recreation fields; a community building; and interpretive signage highlighting the significant environmental restoration planned for the project.

West Villages Fire Station #1 - West Villages Improvement District, North Port, FL — Kimley-Horn worked closely with the West Villages Improvement District (WVID) and the City of North Port to design and permit a 9,300-square-foot fire station facility located on 3.26 acres in the City of North Port in Sarasota County. The project includes the fire station building, associated parking, training area, a helicopter pad, and enhanced landscaping to meet the requirements of the WVID. As landscape architect, responsible for the landscaping and irrigation for the project. As a requirement of the WVID standards, the project's design also incorporates the guidelines for low impact design from the Southwest Florida Water Management District, including reduced turf coverage, native landscape plantings, pervious pavement, and vegetative swales, to name a few. The project is currently 100% designed, permitted, and awaiting the start of construction.

Bradenton Streetscape Design Consultant, Bradenton, FL — Project manager. Kimley-Horn was awarded the streetscape master plan for the Bradenton Community Redevelopment Area (BCRA) which includes design improvements focusing on the pedestrian and streetscape experience. One of the primary goals of the project is to enhance the pedestrian experience and connectivity between the downtown and Riverwalk areas, to the Village of the Arts, a historic district consisting of live-work cottages and bungalows featuring galleries, restaurants and cafes. Kimley-Horn was hired to facilitate public engagement, visioning, development of master plan alternatives, and cost estimates. As part of the community outreach for this project, Kimley-Horn hosted an online survey, hosted information booths at the local farmers market, and facilitated stakeholder meetings including the downtown merchants association and farmer's market vendors. Kimley-Horn is now working on construction and permitting documents for the streetscape implementation focusing on 10 blocks to make the connection from downtown to the Village of the Arts. As part of this process, Kimley-Horn is closely collaborating with the selected construction manager to develop pricing and address any constructability concerns during the design process.

City of North Port US 41 Gateway Monuments, North Port, FL — Landscape architect for the Kimley-Horn team that provided landscape architecture, civil and structural engineering, permit preparation and submittal, and construction bidding assistance services for two main entry features along US 41 (Tamiami Trail) in the City of North Port. The entry features create a gateway to the City, providing a sense of arrival. Residents of the City felt that the traveling public should be able to identify the boundaries of North Port and recognize that the City is unique along that stretch of roadway. Kimley-Horn's landscape architects and engineers worked closely with City staff designing the structure, landscape enhancements, and lighting.



Bill Spinner, P.G.

Environmental Site Investigation and Rehabilitation Services

Representative Experience

TD Bank (formerly Commerce Bank), Miami-Dade, Broward, and Palm Beach Counties, FL
Project geologist for the Kimley-Horn team that is providing a range of environmental design, transportation planning, traffic engineering, landscape design, and site civil services for this retail bank program in Florida. The firm has investigated more than 300 South Florida locations, and designed and permitted more than 60 sites. Many locations were developed on sites with contamination from previous gas station use. TD Bank has made sustainable design a priority and seeks LEED certification for many of their new branches.

Hillsborough Area Regional Transit Authority (HART) Bus Rapid Transit (BRT) North-South MetroRapid Preliminary and Final Design Services, Tampa, FL — Project geologist and completed a Phase II Environmental Site Assessment report. Kimley-Horn provided design services to implement the first BRT project for the Hillsborough Area Regional Transit Agency (HART). The North-South MetroRapid project was the first in the region and a first for Florida's west coast. MetroRapid is HART's signature BRT service that provides additional passenger conveniences, including enhanced buses, 10-minute headways during peak hours and 15 minutes during non-peak hours, and traveler information systems. The MetroRapid project spans 17.5 miles of roadway and has 65 signature stations to serve passengers.

Ridge Fertilizer, Lake Wales, FL — Project manager. Kimley-Horn performed a Phase II ESA to evaluate groundwater conditions across the site. Results of this investigation identified dieldrin in the groundwater in the area along the western property boundary at concentrations exceeding the GCTL. Soil impacts were identified in the central portion of the site at concentrations exceeding the residential direct exposure soil cleanup target levels (RSCTLs). Additionally, dieldrin was identified in the southern portion of the site at concentrations exceeding the leachability SCTL (LSCTL). Kimley-Horn completed a Limited Site Assessment to further evaluate soil and groundwater impacts identified during the June 2011 Phase II ESA. Field activities for this investigation included the installation of temporary groundwater monitoring wells and additional soil sampling. Results of this investigation identified total aluminum concentrations exceeding the GCTL across the Site. Results of this sampling identified dieldrin at concentration exceeding the LSCTL at three other soil sample locations.

St. Petersburg FedEx Logistics Facility Reuse of Former Landfill, St. Petersburg, FL
Project manager. Kimley-Horn was contracted to perform a Phase I Environmental Site Assessment (ESA) on a Closed Class III Landfill for the purposes of redeveloping the landfill into a distribution facility, which will include a 240,000-square-foot warehouse, parking lots, and stormwater retention ponds on top of the landfill. A Phase II ESA was completed to evaluate current landfill conditions with respect to soil/groundwater contamination and landfill gas concentrations. Kimley-Horn coordinated with the Florida Department of Environmental Protection (FDEP) prior to any landfill disturbance, and to discuss long term care. Kimley-Horn prepared documents required by FDEP (Waste Relocation Plan, Health and Safety Plan, Permit Revisions) to ensure landfill integrity and to provide our client with the information necessary for good business decisions. All documents were approved and the facility has been constructed. Kimley-Horn prepared the necessary permit modifications for post-construction monitoring, and is currently overseeing groundwater and landfill gas monitoring.

St. Petersburg FedEx Logistics Facility Reuse of Former Landfill, St. Petersburg, FL
Project manager. Kimley-Horn was contracted to perform a Phase I Environmental Site Assessment (ESA) on a Closed Class III Landfill for the purposes of redeveloping the landfill into a distribution facility,

Special Qualifications

- Has more than 15 years of experience with conducting and managing remediation projects involving Brownfield sites, hazardous waste, industrial waste, and petroleum contamination; groundwater modeling; and regulatory reporting
- Experience with environmental compliance, RCRA, CERCLA, and state hazardous waste and petroleum cleanup programs

Professional Credentials

- Bachelor of Science, Geology, University of South Florida
- Professional Geologist in Florida, #2570

Bill Spinner, P.G.

Representative Experience Continued

which will include a 240,000-square-foot warehouse, parking lots, and stormwater retention ponds on top of the landfill. A Phase II ESA was completed to evaluate current landfill conditions with respect to soil/groundwater contamination and landfill gas concentrations. Kimley-Horn coordinated with the Florida Department of Environmental Protection (FDEP) prior to any landfill disturbance, and to discuss long term care. Kimley-Horn prepared documents required by FDEP (Waste Relocation Plan, Health and Safety Plan, Permit Revisions) to ensure landfill integrity and to provide our client with the information necessary for good business decisions. All documents were approved and the facility has been constructed. Kimley-Horn prepared the necessary permit modifications for post-construction monitoring, and is currently overseeing groundwater and landfill gas monitoring.

Wauchula EPA Brownfields Assessment Program Consulting, Wauchula, FL — The City of Wauchula was awarded a Brownfields Assessment Grant by the EPA to assess hazardous substances and petroleum contamination at various sites within the designated enterprise zone. Kimley-Horn's scope of work under this task-based contract includes generation of scope/fee and completion of Phase I and Phase II Environmental Site Assessments (ESAs) at designated sites; preparation of site-specific Quality Assurance Project Plans (QAPPs) and Health and Safety Plans (HASPs) to meet EPA and FDEP standards; preparation of monthly and quarterly report documentation for submittal to EPA; Brownfield Site Rehabilitation Agreements (BSRAs) development and negotiations; and assisting with negotiating assessment requirements with the EPA and FDEP on behalf of the County. Additional services include community outreach/stakeholder involvement, risk assessment reporting, asbestos and lead-based paint surveys, and the generation of cleanup and redevelopment plans.

City of Wauchula 226 West Main Street, Wauchula, FL — Project manager for the assessment and remediation of identified contamination associated an underground storage tank on a 0.2-acre parcel in the City of Wauchula for the purposes of redevelopment in the downtown district. Prior to the 1940s, the site was used for auto sales and service. Soil and groundwater impacts were identified during a Phase II Environmental Site Assessment (ESA), which are migrating onto other downtown properties.

South Florida Regional Transportation Authority, SFRTA Parcels 104-105, Hialeah, FL — Project manager for the cleanup of a chlorinated solvent plume for the South Florida Regional Transit Authority in Hialeah, Florida. Assisted with the preparation of the Remedial Action Plan and oversaw the injection of media to remediate the solvent plume. The first sampling event to evaluate the effectiveness of the injected material was conducted and is currently being evaluated.

Walmart Stores, Statewide, FL — Project manager on the Kimley-Horn team responsible for conducting Phase I and II environmental site assessments, source removal, groundwater monitoring, and site remediation at numerous sites in Florida, including locations in Wesley Chapel, Largo, Port Richey, Holiday, Tampa, Seminole, Immokalee, and Fort Myers. Common identified issues of concern included pesticide and arsenic contamination, and former industrial/commercial sites with solvent and petroleum contamination.

Venice South Fleet Fuel Facility Site Renovations, Venice, FL — Geologist. Kimley-Horn is providing professional engineering services for this renovation project. The improvements will consist of the installation of two above ground fuel tanks, the replacement of the existing fuel island, and the removal of the existing underground fuel tanks. Kimley-Horn's specific services for this project include pre-design coordination, data collection, design drawings, construction documents, site permit applications through Sarasota County Development Services and the Southwest Florida Water Management District, bidding assistance and limited construction phase services, above ground fuel tank and fuel island installation services, and underground tank removal services.

226 Main Street Brownfield Site, Wauchula, FL — Project manager for the assessment and remediation of identified contamination associated an underground storage tank on a 0.2 acre parcel in the City of Wauchula for the purposes of redevelopment in the downtown district. Prior to the 1940s, the site was used for auto sales and service. Soil and groundwater impacts were identified during a Phase II Environmental Site Assessment (ESA), which are migrating onto other downtown properties.



Erin Emmons, GISP

On-Call Program Management

Representative Experience

Broward County Aviation Department, Fort Lauderdale-Hollywood International Airport Terminal Access Roadways, Curbfront, and Parking Short-Term Improvements, Fort Lauderdale, FL — GIS specialist. Terminal landside analysis and congestion mitigation planning

was performed to analyze and conduct extensive vehicle movement simulations of the upper and lower terminal access roadways and all points of interface with airport parking garages, Consolidated Rental Car facility, Ground Transportation Centers, bus and taxi staging areas, and ridesharing. The purpose was to identify and mitigate increasing congestion and reduction in level of service. Conducted traffic counts and observations of roadway and curbside operations including vehicle and pedestrian interaction. Options considered and recommended included curbside operational enhancements, changes in the exit from the CONRAC to the terminal road, improved signage, flexing use of upper and lower roadways through blue-tooth technology and dynamic signage, restriping to provide an additional exit roadway lane, addition of a new lane, and mitigation of pedestrian impacts to traffic flow.

On-Call Geospatial/GIS General Services and Support, Multiple Locations, FL — Project manager. Kimley-Horn is been contracted by multiple local municipalities and counties to assist in the development, organization and hosting of geospatial information for their organizations as on-call and in-house support. Erin has led the contracts associated with the local GIS support assisting clients with a range of services resulting in advanced analytical analysis, cost savings solutions, development of staff training materials and training presentations, as well as presentations to governing and community boards. Kimley-Horn is currently under contract with the following local agencies for GIS on-call support.

Port Authority of New York and New Jersey, LaGuardia International Airport ITS Vision Master Plan, New York, NY — Project manager. Kimley-Horn prepared a vision for a suite of landside technology deployments to support overall mobility both within the LGA's campus and connecting to the regional transportation network. The result of this visioning process is a vision document that serves as a road map for the deployment of a series of cohesive, integrated landside technologies that will serve the access requirements of the redeveloped facility over the near, mid-term, and long-term horizons. This vision document is not intended to be a master plan itself, rather to be viewed as a precursor to an eventual Landside Access and Mobility Master Plan.

Broward MPO Surtax Services GPC TWO 1, Broward County, FL — Project manager. Kimley-Horn was selected to assist the Broward MPO in the development of a GIS based analysis tool, using the MPO's existing Complete Streets and other Localized Initiatives (CSLIP) process to evaluate and rank over 500 projects submitted by municipalities for Broward County Transportation Surtax funding. The project also included in-house professional engineering services support to assist in the review of the municipal surtax projects prior to ranking.

Fort Lauderdale-Hollywood International Airport Master Plan Update, Fort Lauderdale, FL — GIS specialist for Kimley-Horn's services for the preparation of a comprehensive master plan update for the Fort Lauderdale-Hollywood International Airport (FLL). This master plan will position the airport for long-term success and operational sustainability. We are leading several master plan components including situational analysis and airport visioning to identify the airport's strengths, weaknesses, threats and opportunities; an assessment of the off-airport and regional transportation needs; an assessment of the terminal roadway system; and demand/capacity assessment and identification of

Special Qualifications

- Has 14 years of experience years of experience as a transportation and long-range community planner, with a specialty focus in GIS, field surveying and GPS data configuration, and database development for asset management
- Project manager for the development and implementation of web and mobile, GIS based interactive applications
- Experience in socioeconomic assessments, market feasibility assessments, site selection and planning, including GIS administration, hazards planning, and support
- ESRI ArcGIS, Interactive website and mobile application development, and ArcGIS 10.X

Professional Credentials

- Bachelor of Science, Urban and Regional Planning, Florida Atlantic University
- GIS Professional (GISP)
- Graduate Certificate in Geographic Information Science (GIS), University of West Florida

Erin Emmons, GISP

Representative Experience Continued

current and future requirements airport facilities. This effort included an extensive inventory of existing conditions and outreach to the various tenants and operators.

Interactive Capital Improvements Program GIS Application, Miami, FL — Project manager. The City of Miami, Capital Improvement and Transportation Department contracted Kimley-Horn to develop an online, GIS-based application to maintain, display, and update the City's Capital Improvement Program (CIP) projects. The application allows staff to edit, monitor, and provide status reports of the CIP projects within the City. The application is hosted by the City and has both an internal (intranet, visible only to City staff) and external (internet, visible to the general public) interface version. An application user manual and staff training was also provided. The project was completed in Fall 2014. Kimley-Horn continues to provide support to the application.

DeBary Brownfield Assessment Program Consulting, DeBary, FL — Collected property information, provided GIS support, and assisted in preparation of the material for the Brownfield Area designation of the industrial park area of DeBary, Florida. Public outreach was achieved through the development of a mail merge of property owners within and adjacent to the proposed brownfield locations.

Broward County South US 1 Bus Rapid Transit (BRT) Improvements Study, Broward County, FL — Project analyst. This project focused on Bus Rapid Transit improvements for South US 1 between Downtown Fort Lauderdale and Aventura Mall (Miami-Dade County). The study developed a package of short and medium term implementation projects and identified long term investments to improve transit service, mobility, livability, and support economic development along the corridor. Multijurisdictional coordination included an advisory committee consisting of five municipalities, two counties, two state agencies, an international airport, and eight additional stakeholder agencies. The solutions included transit infrastructure, traffic signalization, intelligent transportation systems (ITS), and complete streets to support transit-oriented development, multimodal facilities, and improved surface transportation.

Capital Region Transportation Planning Agency (CRTPA), Connections 2040 Regional Mobility Plan and StarMetro Transit Development Plan, Tallahassee, FL — Project analyst for the 2040 Regional Mobility Plan for the Tallahassee region. The plan will provide a comprehensive look at the multimodal transportation needs of the area and how they relate to the forecasted economic growth. Special focus will be placed on updating and adapting the MPO's existing land use growth plan to include a market assessment. This market assessment will be used to vet proposed growth plans against the potential for different market sectors to grow or change within the region. An alternate funding assessment will be developed for each of the counties in the region, further extending the focus of allocating funds to where they are most beneficial. This plan also will include a diagnostic assessment of the successes and failures of recent MPO planning efforts with the ultimate objective being to create a more nimble and adaptable plan for the future.

City of Miami Transportation Program Support Services, Miami, FL — Project analyst for Transportation Program Support Services contract with the City of Miami. In this role, Kimley-Horn served as an extension of the City's staff assisting in the program management and administration of transportation and transit projects in the City's Capital Improvements Program (CIP). Kimley-Horn's responsibilities include providing oversight of projects encompassing planning, design, and construction activities.

City of Tampa Advanced Traffic Management System (ATMS) Phase I, FDOT District Seven, FL — Project analyst. This project involved the development of an ATMS System Replacement Plan for the citywide system of traffic signals, closed circuit television (CCTV) cameras, and other ITS devices for the City of Tampa to better manage and operate their system. The project included the development of a Master Plan that became the basis for the implementation of the citywide ATMS as part of current and future design phases. The communications network was designed as a new network scheme with redundant paths to incorporate the existing 531 signalized intersections—expanding to a total of 650 future signalized intersections, 125 CCTV camera locations, and 50 Dynamic Message Signs (DMS). The network incorporated existing City of Tampa fiber lines and equipment along with existing wireless and copper communications. The ATMS System Replacement Plan also included a phasing plan and estimated costs for future funding requirements to complete the design, installation, and construction.



Elyse Mize

Agency Coordination, NEPA

Representative Experience

SLC-20 Launch Facility NEPA Support, FL — Subject matter expert. Supported the NEPA documentation for the land lease and development of a multi-user commercial launch complex at Launch Complex (SLC) 20 at Cape Canaveral Air Force Station in Florida.

Michigan Spaceport Site Selection and Feasibility Study, MI — Subject matter expert. Supporting a site selection and feasibility study to evaluate the potential for spaceport development in the State. Helped study the potential to support both vertical and horizontal launch operations for small class launch vehicles capable of reaching polar and sun-synchronous orbit from launch sites in Michigan. Evaluated environmental considerations for potential future launch operators.

Shuttle Landing Facility Licensing Support, FL — Subject matter expert. Coordinated with Space Florida on the preparation of a LSOL application for horizontal reusable launch vehicles operating from the Shuttle Landing Facility. Provided consulting support to contractor for the Environmental Assessment.

Spaceport Camden Consulting Support, GA — Project manager and subject matter expert. Leading Camden County through the environmental review process for issuance of a LSOL for the proposed Spaceport Camden facility.

Revision of FAA Order 1050.1E, FAA, Nationwide, United States — Project coordinator. Assisted in the revision of the FAA's NEPA implementing regulations and in the development of the accompanying Desk Reference. Participated in a Work Group consisting of representatives from the different lines of business and staff offices across the FAA. Participated in adjudication meeting preparation and support by drafting meeting materials, agendas, and notes, and tracking action items and comment resolutions. Assisted in the research and development of numerous chapters of the Desk Reference. Also assisted with agency review, legal sufficiency review, and preparation of the Order and Desk Reference for review by the Council on Environmental Quality (CEQ).

NEPA and Environmental Support Services Contract, FAA/AST, Multiple Locations, United States — Program coordinator. Work under this contract included development of NEPA documents, review of NEPA documents prepared by applicants, compliance with special purpose laws and regulations (e.g., ESA and NHPA), and development of training documents, guidelines, databases, EMS, noise monitoring studies, and other scientific and regulatory research projects. Regularly assisted FAA/AST with various NEPA analyses, technical memorandums, project record management, monthly progress report development, and annual EMS updates.

Special Qualifications

- Environmental specialist with 10 years of experience supporting a diverse range of federal, state, and local government clients
- Passionate about informed decision-making and adding value to the environmental review process
- Has provided environmental analysis for a broad range of projects, specializing in commercial space transportation

Professional Credentials

- Bachelor of Science, Natural Resource Management, North Carolina State University
- Implementation of the National Environmental Policy Act, Duke University
- Section 106 and Tribal Consultation Workshop for Federal Energy Regulatory Commission (FERC) Jurisdictional Natural Gas
- Projects
- FERC Environmental Review and Compliance for Natural Gas Facilities

Jennifer Daoulas, PLA

Sustainability and Resiliency, Green Infrastructure

Representative Experience

Broward County South US 1 Bus Rapid Transit (BRT) Improvements Study, Broward County, FL — Assisted the Kimley-Horn team creating 3D models of the proposed BRT improvements. This project focused on Bus Rapid Transit improvements for South US 1 between Downtown Fort Lauderdale and Aventura Mall (Miami-Dade County). The study developed a package of short and medium term implementation projects and identified long-term investments to improve transit service, mobility, livability, and support economic development along the corridor. Multijurisdictional coordination included an advisory committee consisting of five municipalities, two counties, two state agencies, an international airport, and eight additional stakeholder agencies. The solutions included transit infrastructure, traffic signalization, intelligent transportation systems (ITS), and complete streets to support transit oriented development, multimodal facilities, and improved surface transportation.

500 Harbour Island Residential, Tampa, FL — Landscape analyst. Located near the heart of downtown Tampa in the Harbour Island District, Kimley-Horn provided civil engineering, transportation engineering, stakeholder outreach and public involvement, permitting, entitlements, and hardscape/pool design services for this 28-story, high-rise multifamily development. Due to its height and proximity to the Tampa International Airport flight corridor, coordination of an aeronautical study with the Federal Aviation Administration (FAA) and Hillsborough County Aviation Authority (HCAA) was necessary. There was also extensive project coordination with City of Tampa, DOH, and SWFWMD.

Babcock Ranch Community, Charlotte and Lee Counties, FL — Landscape analyst providing landscape architecture design and land planning including construction documents and 3D conceptual modeling. Kimley-Horn has provided master planning, landscape architecture, civil engineering, roadway design, and permitting services for the 17,000-acre Babcock Ranch in Southwest Florida for more than a decade. This sustainable new community includes single-family and multi-family residential neighborhoods along with a mixed-use town center and additional commercial areas. We have served as the lead consultant on multiple phases of the development including the first phase which encompassed 1000 residential units and a mixed-use 'Town Square.' Additional phases are currently under design.

Drew Street Complete Streets, Clearwater, FL — Landscape architect. Kimley-Horn was retained by the City of Clearwater to help aid in a concept plan for the transformation of Drew Street/ SR-590, a constrained roadway, into a vibrant, sustainable, and multimodal spine that serves the area's transportation needs and supports and attracts high-quality redevelopment opportunities. The plan provided the City with complete street concepts for the corridor with a focus on context-sensitive improvements, safety, accessibility, and comfort. Preferred roadway segment concepts and associated general planning level costs were developed along with recommended intersection improvements. The project involved agency coordination with FDOT and Pinellas County. Additionally, the public outreach efforts for this project were extensive, which included two well attended public workshops, two surveys (with a large response of over 2,000 participants), a focus group meeting with different entities around the city, and two Complete Street Advisory Board committee meetings. The Drew Street Complete Street Concept Plan also serves as a pilot project to inform improvements for the overall Citywide Complete Streets Implementation Plan being performed by Kimley-Horn.

Lealman Mobility and Complete Street Plan (Linking Lealman Action Plan), Pinellas County, FL — Landscape architect. Kimley-Horn was retained by Pinellas County to create the Linking Lealman Action Plan to encourage mobility in Lealman with complete street and context sensitive improvements. The plan will provide a road map for mobility and complete street improvements in Lealman to be

Special Qualifications

- Has more than nine years of professional experience
- Provides support in construction documentation, specifications, botanical identification, graphics, and presentations
- Software experience includes AutoCAD, Land F/X, Sketch-Up, Adobe Creative Suite: Photoshop, Illustrator, In-Design, Microsoft Office including Excel, PowerPoint, Word
- Experienced with construction administration

Professional Credentials

- Bachelor of Landscape Architecture, Landscape Architecture, Clemson University
- Master of Natural Resources, Virginia Tech
- LEED Green Associate
- Professional Landscape Architect in Florida, #LA6667369
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Jennifer Daoulas, PLA

Representative Experience Continued

programmed as part of the Pinellas County CIP. The intent is to provide a continuous network of streets, sidewalks, bike lanes and trails, and upgraded pedestrian and transit amenities. interior piers and pile bent abutment recessed behind MSE walls. These structures are on a three-mile access road that provides a link to the Orlando International Airport from the Southern Connector Expressway.

North Port Design Criteria Professional Services and Related A/E and Construction Management Services--Fire Rescue Station 85, North Port, FL — Landscape architect for Kimley-Horn team recently completed design and permitting of the City of North Port Fire Station #85. The project is comprised of approximately 4.8 acres of land in a residential section of North Port. Located at the intersection of N. Biscayne Drive and Ponce De Leon Boulevard a little over half of the total land area will be impacted by the project improvements. Kimley-Horn prepared the site paving, drainage, utility, and landscape plans. Plan review and permitting was required by the City of North Port, the Southwest Florida Water Management District, and the Florida Department of Environmental Protection. The project was designed within a stringent timeline and included a value engineering component working with City Fire Rescue District, project Architect, and design team.

St. Armands Parking Garage, Sarasota, FL — Landscape analyst. The City of Sarasota selected Kimley-Horn to lead the design of the approximate 500 space parking garage in St. Armand's Circle. The design included concept development, theming, site planning, civil engineering, landscape architecture, traffic engineering, parking consultation, and structural engineering services. The area is known for its variety of restaurants and retail stores, which also neighbors the nearby beach on Lido Key. The parking garage will provide a much-needed boost to the area's parking supply.

PowerDesign (PDI) Campus Master Plan, St. Petersburg, FL — Landscape architect. Kimley-Horn is currently providing landscape architectural services for this corporate campus expansion. This campus expansion includes a new three-story building that will add 300 office spaces, a café, patio, technology experience center, and courtyard.

Sims Park, New Port Richey, FL — Landscape analyst. The 8.7-acre waterfront community park is situated along the Pithlachascotee ("Cotee") River and Main Street in downtown New Port Richey. As part of the Master Plan, the City Council authorized the closure of segments of Grand and Circle Boulevards to create an unobstructed connection with Orange Lake, an adjacent 6.7-acre lake, to create a unified 15.4-acre urban open space. This newly enlarged urban green space will serve as a focal point and economic catalyst for the greater community. Through a series of programmatic design features, gardens, activity zones and event spaces, the Master Plan connects the River, Park and Lake as a seamless recreational attractor that runs parallel to the businesses, dining, retail establishments and community services along Main Street. Kimley-Horn provided community and stakeholder engagement, programming, master planning, construction document preparation, permitting, and construction phase services. Sims Park opened in January 2016.

St. Pete Innovation District Streetscape and Connectivity Concept Plan, St. Petersburg, FL — Landscape analyst. The Streetscape and Connectivity Concept Plan builds on previous efforts and sets the stage for implementation of projects to help better connect the St. Pete Innovation District. This plan prioritizes multimodal and streetscape projects to help better connect the institutions within the District into a more cohesive community that enables and encourages patron interaction. What makes the St. Pete Innovation District unique is its connection to the water and the presence of marine and health science institutions. The plan implements a brand strategy and identifies opportunities to tie various elements together to give the St. Pete Innovation District a sense of place. Most importantly, the plan creates an implementation strategy for projects that would provide economic development opportunities.

Baker Park, Naples, FL — Landscape architect. Kimley-Horn is currently providing full design services for Baker Park on the Gordon River in Naples. Design components include a large multi-purpose concession building, playground with integrated splash pad, Founder's Garden, day dock, canoe/kayak launch, knoll/overlook, stormwater treatment marsh, small amphitheater area, sunrise terrace, waterfront boardwalks, and a ½ mile trail connecting to the Gordon River Greenway bridge. Kimley-Horn is providing landscape architecture, civil, environmental, and permitting/construction phase services for this \$14.5 million, high-profile planned destination.



Carland Holstead, PWS

Agency Coordination, NEPA

Representative Experience

Austin-Bergstrom International Airport Environmental Assessment, Austin, TX — Project manager and agency liaison. Performed and documented an environmental assessment pursuant to NEPA, 49 USC § 47107(a)(16) and FAA guidance and compliance requirements for a proposed fixed-base operator facility. Performed agency consultation and secured concurrence with a FONSI determination from the FAA.

El Paso International Airport Wildlife Hazard Review, TX — Project manager and agency liaison. Performed a detailed review of desktop resource documents and a proposed lighting and landscaping plan proposed by the El Paso International Airport to assess the likelihood of the proposed project to attract additional potentially hazardous wildlife. Performed site visit to identify potentially hazardous wildlife or attractants. Recommended no further action.

Ithaca Tompkins Regional Airport Wildlife Hazard Assessment, Ithaca, NY — Project assistant. Evaluated field conditions to inform an established wildlife hazard management plan for Ithaca Tompkins Regional Airport while participating in Advanced Airport Wildlife Hazard Management training course.

Proposed Ballengee Hangar CATEX, Dallas Love Field, TX — Project manager and agency liaison. Performed detailed review of pertinent resource documents to appropriately prepare and document an FAA categorical exclusion (CATEX) in accordance with FAA ARP SOP No. 5.00 for the construction of a private aviation aircraft storage hangar and support offices at Dallas Love Field.

FM 2499 Water Line, Wetland Delineation, USACE Permitting, Flower Mound, TX — Environmental planner. The project consists of the installation of a new water pipeline. Kimley-Horn performed wetland delineation and prepared and submitted for authorization by the USACE under a Nationwide Permit No. 12 for Utility Line Activities. We also performed a consultation with the Texas Historical Commission in accordance with the Antiquities Code of Texas. Our team directed a Cultural Resources Investigation to include pedestrian survey and shovel testing as required by the Texas Historical Commission.

Shakes Solar Gen-Tie, Carrizo Springs, TX — Project manager. Kimley-Horn performed and directed Phase I ESA, Wetland Delineation, and Threatened and Endangered Species Study for 16-mile proposed powerline project. Pursuing authorization from the U.S. Army Corps of Engineers and directing a Cultural Resources Investigation.

Spring Creek Bank Stabilization, Richardson, TX — Environmental scientist. Kimley-Horn completed a bank stabilization project along Spring Creek at Routh Creek Parkway. The existing bank was nearly vertical, eroding, and sloughing into the creek. We designed bank stabilization and erosion protection in an effort to reduce the rate of erosion along the boundary of a proposed 415-unit multifamily project. The project included a Floodplain Study, hydraulic analysis, environmental permitting, and structural design for an approximately 650-LF 30-foot tall gabion tieback wall to stabilize the channel bank. Challenges included setting the gabion wall alignment and balancing cut/fill to avoid adversely impacting the FEMA regulated Floodway; utilizing an atypical one-foot offset between gabion baskets to match the existing bank slope; designating various tieback angles per lift and adjacent to an existing gabion wall at the upstream end of improvements; and, designing the tiebacks for various soil and loading conditions.

Special Qualifications

- Eight years of experience
- Experienced in wetland and stream determinations and delineations
- Experience with U.S. Army Corps of Engineers permitting for a broad range of projects including aviation projects, protected species evaluations (including threatened and endangered species, migratory birds, and bald and golden eagles)
- NEPA evaluation and documentation; and other federal, state, and local agency environmental permitting

Professional Credentials

- Master of Science, Marine Resources Management, Texas A&M University
- Bachelor of Science, Marine Biology, University of Southern Mississippi
- Completed the Advanced Airport Wildlife Hazard Management training course in accordance with FAA requirements



Rick Browne, CHMM

Wetlands and Protected Species, Site Investigation and Rehabilitation

Representative Experience

Environmental Contamination Assessment and Mediation Planning, Belle Glade State Municipal Airport, Belle Glade, FL— The western section of the airfield is heavily contaminated with several organochlorine pesticides (OCPs), including toxaphene and dichloro-diphenyl-trichloroethane (DDT). Kimley-Horn helped secure funding from the Florida Department of Transportation (FDOT) to allow for completion of additional site assessment, soil pilot study, feasibility study, and remediation design at the facility. Kimley-Horn is currently in the process of completing a feasibility study evaluating several options for remediation of soil. The feasibility study includes evaluation of future use plans for the facility and integration of site future development with cleanup.

City of Zephyrhills Airport, Zephyrhills, FL — Environmental analyst on Kimley-Horn team that is preparing Phase I ESAs for multiple parcels located at the City of Zephyrhills Municipal Airport.

Air Monitoring for Curtis Park Corrective Action Plan, Miami, FL — The City of Miami Department of Capital Improvements planned to implement a Corrective Action Plan (CAP) for Curtis Park, and the implementation of the CAP required air monitoring throughout the duration of activities that may generate dust. Kimley-Horn performed project management activities which included budget and schedule tracking, invoice review, project communications, coordination and interaction between project team members and the City. Kimley-Horn also prepared reports based on the findings from the air monitoring lab results.

Grande Oaks Development, Lake Wales, FL — Environmental scientist analyst. Kimley-Horn was responsible for completing an in-depth Natural Resource Assessment/Environmental Due Diligence for this 250-acre site. The site consisted of the remaining parcels from a development that had to stop before finishing all phases. Services included the NRA, gopher tortoise survey, sand skink pedestrian and cover board surveys, soils analysis for sand skink soils, eagle nest survey, negotiation with the US Fish and Wildlife Service on a modified survey methodology for the sand skink, land cover mapping and assessment, mitigation strategy for listed species impacts, site planning and support for sale of the property.

Hardee County South Fort Meade Mine Expansion, Hardee County, FL — Environmental scientist analyst. This project includes initial land use and species evaluations on more than 5,000 acres on multiple properties in Hardee County. Following these initial environmental assessments, Kimley-Horn delineated wetlands on 4,200 acres and led field meetings, reviews, and GIS mapping of final wetland lines with the Florida Department of Environmental Protection (FDEP). A detailed jurisdictional determination package that included assessment of Federal Waters of the U.S. and non-jurisdictional waters/wetlands was prepared for submittal to the U.S. Army Corps of Engineers (USACE). Kimley-Horn will be leading field meetings with USACE, if required, within the next few months. A wetland assessment package was also prepared that included assessments utilizing the State's Uniform Mitigation Assessment Methodology (UMAM) and these assessments are being reviewed with FDEP in the field. Upon completion of the field reviews, Kimley-Horn will be assisting the client with state and federal permit applications. The mine expansion has occurred in several phases. Under the initial expansion phase, Kimley-Horn also conducted the Baseline Inventory Report (BIR) for multiple mitigation parcels. Project services include land use mapping, wetland delineation, FDEP and USACE jurisdictional determination package preparation and field reviews, permitting assistance, and UMAM assessments.

Special Qualifications

- Has seven years of experience providing environmental support services including Phase I and Phase II environmental site assessments, soil and groundwater sampling involving petroleum contamination and hazardous waste, listed species surveys, habitat assessments, wetlands delineations and permitting, and brownfield site inventories
- Software experience includes ArcGIS and MATLAB

Professional Credentials

- Master of Science, Environmental Sciences and Engineering, Virginia Tech
- Bachelor of Science, Environmental Science, University of North Carolina at Chapel Hill
- 40-hour OSHA HAZWOPER certification
- Hazardous Materials Mgr, FL, 21329

Rick Browne, CHMM

Representative Experience Continued

Bobby Jones Golf Club Due Diligence, Civil Engineering, Environmental, Landscape Architecture, Permitting, and Construction Phase Services, Sarasota, FL — Environmental analyst. Kimley-Horn is providing a variety of professional consulting services as a subconsultant to the golf course architecture company tasked with redevelopment of the approximately 260-acre Bobby Jones Golf Club, owned by the City of Sarasota. Kimley-Horn is providing comprehensive design services to help the prime firm and the city implement the proposed renovation activities at the golf course which has been operating since the 1920s. During to that time, a portion of the course was operated as a landfill. The former landfill was closed prior to the existence of environmental regulations. Therefore, any work conducted in the former landfill may be subject to the Florida Department of Environmental Protection's (FDEP) Guidance for Disturbance and Use of Old Closed Landfills or Waste Disposal Areas in Florida (Dump Guidance), dated August 19, 2015 (FDEP Guidance). An environmental evaluation to address potential soil or groundwater contaminants that may be encountered as part of redeployment of this former landfill is required considering that contamination from the application of fertilizers and pesticides along with other impacts may impact site design, permitting, and construction. In addition to providing wetland delineation and environmental evaluation, Kimley-Horn is providing civil engineering design and landscape architecture design. Kimley-Horn is providing permitting services through the City of Sarasota, Southwest Florida Water Management District (SWFWMD), Florida Department of Transportation (FDOT), and the National Pollution Discharge Elimination Service (NPDES). Kimley-Horn is also providing limited construction phase services.

Landhill Landfill, St. Petersburg, FL — Environmental analyst on Kimley-Horn team that is preparing Phase I and Phase II environmental site assessments (ESAs) for a closed landfill in St. Petersburg. Involved with report preparation and field sampling (soil, groundwater, and landfill gas).

St. Petersburg FedEx Logistics Facility Reuse of Former Landfill, St. Petersburg, FL — Environmental analyst. Kimley-Horn was contracted to perform a Phase I Environmental Site Assessment (ESA) on a Closed Class III Landfill for the purposes of redeveloping the landfill into a distribution facility, which will include a 240,000-square-foot warehouse, parking lots, and stormwater retention ponds on top of the landfill. A Phase II ESA was completed to evaluate current landfill conditions with respect to soil/groundwater contamination and landfill gas concentrations. Kimley-Horn coordinated with the Florida Department of Environmental Protection (FDEP) prior to any landfill disturbance, and to discuss long term care. Kimley-Horn prepared documents required by FDEP (Waste Relocation Plan, Health and Safety Plan, Permit Revisions) to ensure landfill integrity and to provide our client with the information necessary for good business decisions. All documents were approved and the facility has been constructed. Kimley-Horn prepared the necessary permit modifications for post-construction monitoring, and is currently overseeing groundwater and landfill gas monitoring.

Wauchula EPA Brownfields Assessment Program Consulting, Wauchula, FL — Environmental analyst; involved with preparation of historical documents report, site reconnaissance, and preparation of site report. In 2010, Kimley-Horn prepared a Brownfields Assessment Grant application to assess hazardous substances and petroleum contamination at various sites within the designated enterprise zone for the City of Wauchula. In 2011, the City was awarded a \$400,000 grant. The City selected Kimley-Horn to complete tasks under the grant, including Phase I and Phase II Environmental Site Assessments (ESAs) at designated sites; preparation of site-specific Quality Assurance Project Plans (QAPP) and Health and Safety Plans (HASP) to meet EPA and FDEP standards; preparation of monthly and quarterly report documentation for submittal to EPA; Brownfield Site Rehabilitation Agreements (BSRAs) development and negotiations; and assistance with negotiating assessment requirements with the EPA and FDEP on behalf of the County. Additional services include community outreach/stakeholder involvement, risk assessment reporting, asbestos and lead-based paint surveys, and the generation of cleanup and redevelopment plans. To date, Kimley-Horn has completed two Phase I and two Phase II ESA reports, several quarterly reports, and public outreach meetings.



Shelby Oenbrink, WPIT

Wetlands and Protected Species

Representative Experience

Lost Oak Resort Master Plan, Lake Wales, FL — Environmental analyst responsible for numerous wildlife surveys for federal and state listed species, such as Florida scrub-jay, wading birds, southeastern American kestrel, Audubon's crested caracara, bald eagles, and Sherman's fox squirrels. Analyst is also responsible for wetland delineation and coordination with multiple agencies: SFWMD, USACE, and USFWS. Kimley-Horn provided preliminary engineering and consulting services for this resort development. Services included preparation of a conceptual master plan and preliminary design concepts for permitting. The resort is proposed to include three golf courses, a clubhouse, a marina, sporting clay areas, and rental cabins.

Boynton Beach Police Headquarters Phase 1 Design, Boynton Beach, FL — Environmental analyst on the Kimley-Horn team who was retained by a local contractor to assist the City of Boynton Beach in conducting an environmental assessment and listed species survey throughout the project site.

SR A1A Streetscape Improvements, Fort Lauderdale, FL — Environmental analyst. Kimley-Horn is providing full civil engineering services for the redevelopment of the existing streetscape of State Road A1A Northbound from the South Beach Parking to Alhambra Street along Fort Lauderdale Beach. The project consists of improving the sidewalk on both sides of the street outside of the curbing in order to provide modern and cohesive look, a definitive delineation between the pedestrian zone and the outdoor restaurant café zone, and improve pedestrian experience while walking along the beach and to its businesses. The trees and light poles are being consolidated near the back of curb to open up the pedestrian zone and provide a clear walking path. Kimley-Horn is the prime consultant on the project, with a team of local subconsultants, and is responsible for providing the civil engineering, permitting, coordination, and other services for the complete project.

Environmental Services for Seminole Tribe of Florida, Collier County, FL — Environmental analyst assisting with a wildlife survey and a cavity and roost habitat survey for the Florida bonneted bat. Locations of cavities and hollows are being recorded using a GPS unit and video. A Wildlife Survey Memorandum will be prepared summarizing the results of the survey.

Wyn Cove Gopher Tortoise Survey, Indian River County, FL — Biologist on the Kimley-Horn team selected to provide one gopher tortoise survey to locate potentially occupied and abandoned gopher tortoise burrows within the project area. Burrows to be located with GPS and the survey to be completed using the Florida Fish and Wildlife Conservation Commissions guidelines.

Discovery Village, Discovery Senior Living, Melbourne, FL — Environmental analyst on the Kimley-Horn team responsible for the gopher tortoise survey, permitting, and relocation services for the proposed four-story, 33-unit building to the Sonata at Melbourne property.

McLane Distribution Center Expansion, Marion County, FL — Environmental analyst on the Kimley-Horn team responsible for the natural resources assessment, gopher tortoise permitting, and gopher tortoise relocation conducted for the expansion of an existing building and parking area within the Ocala International Commerce Park in Marion County. The project is on 47 acres within the City limits of Ocala near the intersection of NW 50th Avenue and NW 5th Street.

Special Qualifications

- Has six years of experience
- Has conducted several Natural Resource Assessments, Habitat Conservation Plans, and coastal construction control line permits
- Authorized Gopher Tortoise Agent

Professional Credentials

- Bachelor of Science, Environmental Science, University of Central Florida
- Authorized Gopher Tortoise Agent
- Wetland Professional in Training (WPIT) in Florida



Julie Burford

Wetlands and Protected Species, Permitting and Agency Coordination

Representative Experience

Chastain-Skillman, Inc., Lakeland, FL — Director of Ecological Services. Experience included state and federal threatened and endangered wildlife compliance and permitting, habitat restoration and management, performing jurisdictional wetland delineation, Uniform Wetland Mitigation Assessment Method (UMAM) assessments, Environmental Resource Permitting (ERP), vegetative identification and monitoring, and utilizing Geographic Information Systems (GIS) for landscape planning. Special interests included incentive-based programs for municipal and agricultural clients and close coordination with regulatory agencies to expedite project execution. Recently became qualified under the Federal Aviation Agency (FAA) as a Wildlife Hazard Assessment Biologist and is currently acquiring certification as a Professional Wetland Scientist.

Florida Fish & Wildlife Conservation Commission, Bartow, FL — Private Lands Wildlife Biologist. Served the Office of Conservation Planning Services and Division of Habitat Species and Conservation as a wildlife biologist assisting private and public sector landowners and local, state, and federal governmental entities on habitat-related issues. Primary duties include plant and wildlife data collection, contributing to wetland restoration plan of operations, developing habitat and restoration management plans, and monitoring on USDA Natural Resource Conservation Service Wetland Reserve Easements.

Florida Fish & Wildlife Conservation Commission, Ocala, FL — Northeast Assistant Regional Biologist. Served the Species Conservation Planning Section and Division of Habitat and Species Conservation with nongame wildlife technical assistance to the public, addressing high-priority and emerging nongame conservation issues, coordinating permit reviews, providing administrative support, assisting with the implementation of Florida's Wildlife Legacy Initiative, conducting nongame wildlife surveys, and working on other conservation projects. Other job duties include the writing of the outreach section of the Southeastern American Species Action Plan, development of local and statewide partnerships, stewardship training, presentations to local partnerships, and a variety of outreach and education appearances.

Florida Fish & Wildlife Conservation Commission, Starke, FL — Wildlife Management Technician. Responsible for the operation of hunter check stations on Camp Blanding Wildlife Management Areas. Duties required checking in the public at access points during youth hunts, dog hunts, and into archery and still hunt areas. Other duties included collection of species specific harvest data, jaw bone removal to age deer, brain stem and lymph node removal to test for chronic wasting disease in deer, and cleaning deer carcasses for youth hunters. Also acquired skills in tractor operation to maintain vegetation height on the WMA. Experience in speaking with members of the public regarding rules and regulations of the wildlife management area and other related topics.

Florida Fish & Wildlife Conservation Commission, Gainesville, FL — Wildlife Research Technician. Responsible for the operation of hunter check stations on Camp Blanding Wildlife Management Areas. Duties required checking in the public at access points during youth hunts, dog hunts, and into archery and still hunt areas. Other duties included collection of species specific harvest data, jaw bone removal to age deer, brain stem and lymph node removal to test for chronic wasting disease in deer, and cleaning deer carcasses for youth hunters. Also acquired skills in tractor operation to maintain vegetation height on the WMA. Experience in speaking with members of the public regarding rules and regulations of the wildlife management area and other related topics.

Special Qualifications

- Has six years of experience
- Has conducted several Natural Resource Assessments, Habitat Conservation Plans, and coastal construction control line permits
- Authorized Gopher Tortoise Agent

Professional Credentials

- Bachelor of Science, Environmental Science, University of Central Florida
- Authorized Gopher Tortoise Agent
- Wetland Professional in Training (WPIT) in Florida



Mallory Clancy, P.E.

Site Planning and Permitting, NPDES

Representative Experience

Business Case Analysis for the City of Miami Beach Stormwater Resiliency Program Pilot Project, Miami Beach, FL — Project analyst. Kimley-Horn is leading an integrated flood modeling task as a subconsultant to another firm. The purpose of the task is to assess four design storm events that represent a combination of rainfall, sea level rise, storm surge, and tide stage scenarios under no-build, public investment, and private investment scenarios. The resulting flood depths for the 12 scenarios will be mapped out by Kimley-Horn and provided to the City. The outcome of the project will be concise communication materials to help City decision-makers articulate the business case for resilience investments backed by technical analyses, integrated flood modeling, and economic analyses.

Sunnyhill Restoration Area (SRA) Berms Modeling, Marion County, FL — Project engineer. The Sunnyhill Restoration Area (SRA) is made up of 4,191 acres located approximately 6 miles east of Weirsdale in Marion County. Portions of the Upper Ocklawaha River was channelized in the early 1900s which led to isolated and disconnected portions of the natural Upper Ocklawaha River channel. This project consists of developing a hydrologic and hydraulic model that can be used to evaluate a conceptual design to increase flows through the natural channel. Kimley-Horn is accomplishing these with improvements to internal berms within the SRA that are intended to support the proposed water level increase to elevation 52-55 feet NAVD88 in Areas A-C. In order to meet this objective, the team will first evaluate available data for ICPR model development and model calibration. Watershed delineation will be conducted to identify the drainage basin(s). Stage area relationship for each sub-basin will be defined according to the DEM. Lastly, Kimley-Horn will model for downstream flooding impacts to the area upstream of the outfall to the C-231 canal and downstream of Area E associated with the increased elevation.

Special Qualifications

- Six years of experience in environmental engineering and stormwater management
- Previously served as district engineer for 14 community development districts in Lee, Collier, and Sarasota counties
- Served as a national pollutant discharge elimination system (NPDES) permit consultant for five municipalities
- Software experience includes ICPR 4, xpswmm2011, SWMM 5.0, and ArcGIS

Professional Credentials

- Master of Science, Environmental Engineering, University of Florida
- Bachelor of Science, Environmental Engineering, University of Florida
- Professional Engineer in Florida #83363



Tori Bacheler

Wetlands and Protected Species, Permitting and Agency Coordination

Representative Experience

Tallahassee Airport/Capital Circle Joint Use Drainage Planning, Tallahassee, FL

Environmental scientist assisting with environmental resource permitting, species surveys and environmental mitigation plans for Kimley-Horn's development of a unified, joint use stormwater management plan that addressing the drainage needs associated with the improvements planned for Capital Circle Southwest, development on Airport property, and the possible improvements being considered for Springhill Road. This effort involves coordination with nearly a dozen stakeholders, along with the critical evaluation of drainage needs and opportunities in the area, while balancing the constraints associated with the adjacent properties, such as the FAA guidance for drainage facilities in the vicinity of an airport, US Forest Services' agreements with the Tallahassee Museum and future plans for an administrative complex, and the City's limited use of the Gold Aster preserve.

Wakulla County Airport Project Environmental Impact Report (PEIR), Wakulla County, FL

Environmental analyst. Kimley-Horn provided engineering and environmental services to complete a Project Environmental Impact Report (PEIR) for the Wakulla Airport. The purpose of this project was to evaluate a build alternative that will bring the Wakulla County Airport into compliance with Florida Administrative Code (FAC), Chapter 14-60.007(2)(b)1.a and for the FDOT licensing of the Airport. The project included public involvement, engineering analysis and Preliminary Engineering Report (PER), environmental analysis and reports including Wetlands Evaluation Report, Wildlife and Habitat Report, Contamination Screening Evaluation Report, and final PEIR. Kimley-Horn worked in close coordination with Wakulla County and FDOT on this project.

Orlando Airport Park, Orange County, FL — Environmental analyst for all development services associated with a 62-acre business park that consists of two distribution centers, with associated office space, totaling 830,982 square feet. Civil engineering services include preparation of development plans, construction documents, stormwater management system design, utility infrastructure including a lift station to support the entire business park, and all associated permitting and construction phase services.

Tamiami Government Center, Collier County, FL— Environmental analyst responsible for environmental due diligence, listed species surveys, wetland delineation and environmental permitting for the proposed Government Center for the Seminole Tribe of Florida. Listed species surveys included gopher tortoise survey and cavity survey for Florida bonneted bat. Environmental permitting included creating a wetland mitigation plan to restore cypress swamp within the project area.

Emerald Coast Behavioral Hospital, Panama City, FL — Environmental scientist responsible for conducting field work for due diligence. Field work included wetland delineation and determining listed species use. Kimley-Horn was retained to conduct an environmental due diligence for Emerald Coast Behavioral Hospital. Tasks for the effort include review of existing permits and data regarding potential wetland limits on the adjacent property, review existing Phase I Environmental Assessment Report, conduct a site visit to review existing conditions, contact applicable agencies, review flood plan map, and review information from State Historic Preservation Officer.

SW 10th Street PD&E Study (Sawgrass to I-95), FDOT District Four — Environmental scientist responsible for conducting gopher tortoise survey, habitat mapping, and writing and submittal of NEPA documentation (Natural Resources Assessment, Socio-cultural Effects Report, Section 4(f) Determination of Applicability Report, Contamination Screening Evaluation Report, and Categorical Exclusion Report), and public involvement. This project includes the widening of an already existing roadway in Deerfield

Special Qualifications

- Has six years of experience conducting wetland delineations, Florida scrub-jay surveys, gopher tortoise surveys and relocations, sand and blue-tailed mole skink coverboard surveys, Johnson's seagrass surveys, crested caracara surveys, wood stork, Florida sandhill crane, Florida burrowing owl, and protected wading birds surveys
- Experience with NEPA documentation (Environmental Assessments, Categorical Exclusions, Natural Resource Evaluations, Contamination Screening Evaluation Reports, Section 4(f) Determination of Applicability)

Professional Credentials

- Master of Science, Marine and Environmental Biology, Nicholls State University
- Bachelor of Science, Wildlife Ecology and Conservation, University of Florida
- Gopher Tortoise Authorized Agent, FWC, #GTA-10-00039

Tori Bacheler

Representative Experience Continued

Beach, FL. SW 10th Street provides a link between the Sawgrass Expressway, Florida's Turnpike, and I-95, therefore serving as an important arterial roadway for local residents and commuters. Assessment Report, conduct a site visit to review existing conditions, contact applicable agencies, review flood plan map, and review information from State Historic Preservation Officer.

Districtwide ETDM Support, FDOT District Four — Environmental scientist responsible for conducting several ETDM Programming Screenings within Palm Beach County and Broward County. Projects included 10th Avenue North/I-95 Interchange, Atlantic Avenue Widening, and Lantana Road/I-95 Interchange. ETDM screening included creating project description and purpose and need; review local comprehensive plans and Long Range Transportation Plans; review funding within the Transportation Improvement Program and State Transportation Improvement Program; digitize project within ETDM to run GIS analysis within the Environmental Screening Tool (EST); prepare sociocultural effects evaluation reviews; prepare Advance Notification package; review and respond to Environmental Technical Advisory Team (ETAT) comments, assigning Degree of Effect (DOE) for each category, and preparing the ETDM Programming Screen Summary Report. Also under this Districtwide contract, projects included seagrass surveys for bridge projects in St. Lucie County, and a feasibility study at the Savannas Preserve State Park.

PD&E Study for SR 5/US 1/Federal Highway from CR A1A to Beach Road, FDOT District Four — Environmental scientist responsible for conducting seagrass, gopher tortoise, and Florida scrub-jay surveys, habitat mapping, tree surveys, and assisting with the writing and submittal of NEPA documentation (Natural Resource Evaluation, Air Quality Memorandum, Type II Categorical Exclusion, Sociocultural Effects Report, and a Programmatic Section 4(f) Evaluation). Kimley-Horn was retained by District Four to conduct a PD&E study for the Jupiter Bridge (No. 930005) on US 1/ Federal Highway between CR A1A and Beach Road in Palm Beach County. Our team is evaluating the following alternatives: 1) Bridge rehabilitation; 2) Bridge replacement, high level, mid-level, low level, includes various alignment alternatives; 3) No-build. The various alignment and build alternatives will include consideration for a temporary bridge, full bridge closure, or phased construction with traffic on existing bridge. Each alternative above will evaluate bringing the bridge up to FDOT standards including options to accommodate pedestrian and bicyclists.

SR A1A North Causeway PD&E Study, FDOT District Four — Environmental scientist responsible for conducting seagrass survey, wetland delineation, and assisting with NEPA documentation (Natural Resource Assessment, Sociocultural Effects Reports, and Type II Categorical Exclusion). The SR A1A North Causeway Bridge is a movable bascule bridge constructed in 1963. It spans the Atlantic Intracoastal Waterway (ICWW) connecting the barrier island to the City of Fort Pierce. In March 2013, the bridge was inspected and deemed an “operational area of concern.” The purpose of this PD&E Study is to evaluate bridge replacement alternatives to resolve the existing bridge's structurally deficient conditions and enhance regional mobility for the adjacent area. Environmental services include conducting boat surveys to identify which vessels require bridge openings.

Midway Road (CR 712) Design and Reconstruction, FDOT District Four — Environmental scientist conducting Crested Caracara (federally threatened bird species) surveying. Also responsible for ERP and USACE permitting. Kimley-Horn will be responsible for permitting the reconstruction of Midway Road from a two-lane, rural roadway to a four-lane, divided urban roadway from west of South 25th Street to east of SR 5 (US 1), for a length of two miles. The project includes replacement of the existing bridge over the North Fork of the St. Lucie River (Aquatic Preserve and Outstanding Florida Water) and also includes retaining walls, drainage ponds, signing, lighting, signalization, landscaping, irrigation, and wetland mitigation. The corridor is within a historic area and our design will consider right-of-way impacts, impacts to parks and schools, concerns of White City residents, access management changes, flooding and environmental concerns, 4(f) properties, utilities and, possibly, decorative lighting within the historic limits.

PD&E Study for SR 5/US 1/Federal Highway from CR A1A to Beach Road, FDOT District Four — Environmental scientist. Kimley-Horn was retained by District Four to conduct a PD&E study for the Jupiter Bridge (No. 930005) on US 1/ Federal Highway between CR A1A and Beach Road in Palm Beach County. Our design will consider right-of-way impacts, impacts to parks and schools, concerns of White City residents, access management changes, flooding and environmental concerns, 4(f) properties, utilities and, possibly, decorative lighting within the historic limits.



Michael Wanko, P.E.

Feasibility Studies, Project Development, and On-Call Program Management

Representative Experience

Broward County Aviation Department, Fort Lauderdale-Hollywood International Airport Terminal Access Roadways, Curbfront, and Parking Short-Term Improvements, Fort Lauderdale, FL

— Project engineer. Terminal landside analysis and congestion mitigation planning was performed to analyze and conduct extensive vehicle movement simulations of the upper and lower terminal access roadways and all points of interface with airport parking garages, Consolidated Rental Car facility, Ground Transportation Centers, bus and taxi staging areas, and ridesharing. The purpose was to identify and mitigate increasing congestion and reduction in level of service. Conducted traffic counts and observations of roadway and curbside operations including vehicle and pedestrian interaction. Options considered and recommended included curbside operational enhancements, changes in the exit from the CONRAC to the terminal road, improved signage, flexing use of upper and lower roadways through blue-tooth technology and dynamic signage, restriping to provide an additional exit roadway lane, addition of a new lane, and mitigation of pedestrian impacts to traffic flow.

City of El Paso, El Paso Airport Financial & Planning Services & Master Plan Update 2016, El Paso, TX

— Project engineer. Serving as subconsultant. Kimley-Horn's role in this master plan included the landside portion of the master plan inventory, facility requirements, and alternatives analysis. As a part of this effort, we are also building an ALPS multimodal simulation model of the access roadway and curbside operations as well as conducting a pavement assessment.

City of Phoenix, Phoenix Sky Harbor International Airport Comprehensive Asset Management Plan (CAMP), Phoenix, AZ

— Project engineer. Kimley-Horn is leading the landside ground transportation planning elements of the airport master plan update. Particular emphasis is being placed on improving the airport access, ground transportation centers, curbside operations, parking capacity and evaluating options to improve traffic congestion on the airport roadways. The future ground transportation analysis will use the Advanced Land-Transportation Performance Simulation (ALPS) model, the firm's pedestrian (passenger, employee, visitors) simulation model. The simulation model is flight schedule based and can assess changes to the airport roadways and pedestrian travel paths to make improvements to curbs, roads, parking, station dwell times and vertical circulation elements within the terminals. The ALPS ground transportation models will analyze the existing and planned roadway network, curbside operations, GTCs, parking, and PHX Sky Train® stations to highlight areas of concern. These models are calibrated to match existing conditions, then scaled up to future passenger levels to highlight the impacts of additional traffic at the airport. Once the issues are understood, alternative configurations will be developed to provide options to mitigate impacts to the airport ground transportation facilities and confirm that the changes will meet the airport's future needs.

Pinellas County, St. Pete-Clearwater International Airport, Master Plan, Clearwater, FL

Project engineer. As a subconsultant, Kimley-Horn is providing landside planning for the terminal access and curbside roadways, parking, and rental car facilities in support of the terminal area master plan. The facilities that are being studied include the terminal area curbside operations and access roadway, short- and long-term parking lots, economy parking, employee parking, and rental car facilities and parking. The study will focus on documenting the existing landside conditions, assessing terminal and access roadways, and parking areas to identify congestion points, and develop improvements to mitigate the identified congestion points. For the rental car facilities, Kimley-Horn will compare capacity and future demand and identify future requirements for terminal counters, booths, ready/return spaces, quick-turnaround (QTA) facilities, remote storage/maintenance, and access and traffic patterns for jockey trips.

Special Qualifications

- Has six years of traffic engineering and transportation planning experience, including traffic impact studies, signal timing, comprehensive transportation plans, and analysis of signals, roundabouts, interchanges, and urban corridors
- Extensive experience with Advanced Landside Performance Simulation (ALPS) software, a Kimley-Horn developed multimodal simulation software to model landside environments at airports
- Experience in traffic signal design and roundabout design
- Airfield design experience with deicing facilities

Professional Credentials

- Bachelor of Science, Civil Engineering, North Carolina State University
- Professional Engineer in Florida #85674

Michael Wanko, P.E.

Representative Experience Continued

Hartsfield-Jackson Atlanta International Airport, Central Passenger Terminal Complex, Atlanta, GA — Analyst. As part of the Hartsfield-Jackson + Partnership and a landside services on-call as a subconsultant, Kimley-Horn is currently providing civil landside design services and land transportation simulation modeling as a subconsultant for the Central Passenger Terminal Complex Modernization at Hartsfield-Jackson Atlanta International Airport as part of an on-call Landside services contract. The project includes the installation two large canopies over the upper level entrance roadways on the north and south sides of the terminal, complete removal of existing upper level sidewalk paving and replacement with pavers as well as the installation of bollards, landscape planters, and other pedestrian elements associated with the canopy installations. Specific design services being provided by Kimley-Horn are visioning, rainwater reuse conceptual planning and design, subsurface utility design, grading design, transportation design, sidewalk design, parking and revenue control modification design, and pedestrian and traffic simulation for phasing and access design.

Fresno Yosemite International Airport (FAT), Master Plan Update, Fresno, CA — Environmental analyst. Kimley-Horn is providing a variety of professional consulting serviced as a subconsultant to the golf course architecture company tasked with redevelopment of the approximately 260-acre Bobby Jones Golf Club, owned by the City of Sarasota. Kimley-Horn is providing comprehensive design services to help the prime firm and the city implement the proposed renovation activities at the golf course which has been operating since the 1920s. During to that time, a portion of the course was operated as a landfill. The former landfill was closed prior to the existence of environmental regulations. Therefore, any work conducted in the former landfill may be subject to the Florida Department of Environmental Protection's (FDEP) Guidance for Disturbance and Use of Old Closed Landfills or Waste Disposal Areas in Florida (Dump Guidance), dated August 19, 2015 (FDEP Guidance). An environmental evaluation to address potential soil or groundwater contaminants that may be encountered as part of redeployment of this former landfill is required considering that contamination from the application of fertilizers and pesticides along with other impacts may impact site design, permitting, and construction. In addition to providing wetland delineation and environmental evaluation, Kimley-Horn is providing civil engineering design and landscape architecture design. Kimley-Horn is providing permitting services through the City of Sarasota, Southwest Florida Water Management District (SWFWMD), Florida Department of Transportation (FDOT), and the National Pollution Discharge Elimination Service (NPDES). Kimley-Horn is also providing limited construction phase services.

Memphis International Airport, Centralized Deicing Facility Design and Glycol Management Program, Memphis, TN
Analyst. Kimley-Horn is responsible for the preliminary and final civil and electrical design of a 12-gate (one gate will hold a A-380 and eleven gates will hold a B-777 aircraft) deicing pad on the southern end of the airport and the design of a glycol collection system. The glycol collection system temporarily will terminate before the existing storm drainage system via a diversion structure that will allow glycol-affected water to be routed to the existing sanitary sewer or pumped out of the drainage system and removed from the site. An electronic bypass option will allow drainage to continue to the drainage system when there is no deicing activity. The southern deicing pad will be adjacent to Taxiways J and N and will use the existing hold pads adjacent to those taxiways on the southern end of the airport. Two new taxiways will be designed to connect the southern ends of Taxiways J and N for the deicing pad. To maintain access to interior property owned by the airport, two taxiway bridges are being designed to accommodate the aircraft. The addition of the two taxiway bridges and proposed vehicle bridge will make it necessary to lower the roadway and add a pump station for drainage. The deicing pad location will be designed to accommodate future facilities, including a deice control tower and an employee shelter (i.e., warming, break, and restroom facility).



Colin Frosch, E.I.

Analyst Support

Representative Experience

Apex Peakway Southeast Connector Feasibility Study, Apex, NC — Project analyst. Kimley-Horn prepared an environmental screening report, functional alternatives, visualizations, and a preliminary estimate of probable cost related to the extension of Apex Peakway from NC 55 near the US 1 interchange northeast to SR 1010 (Center Street). Major tasks included data collection and environmental screening, wetland and stream and buffer delineations, protected species and habitat evaluations, traffic forecasting and analysis, roadway design, alternatives analysis, public involvement and visualizations, alternatives evaluation and recommendations, and opinion of probable right-of-way and construction costs development.

C-4928, Morreene Road Bike Lanes (SW-47), Durham, NC — Project analyst. The City is receiving LAPP and Congestion Mitigation and Air Quality (CMAQ) funding to complete design, environmental documentation, right-of-way acquisition, utility relocation, and construction for Complete Street improvements along SR 1317 (Morreene Road), from Neal Road to SR 1320 (Erwin Road) in Durham (1.5 miles). The improvements include widening the existing two-lane shoulder section to two-lane curb and gutter section to accommodate bicycle lanes and sidewalks. Kimley-Horn will complete location surveying, subsurface utility locations, geotechnical investigations, project coordination, public involvement, NEPA documentation, roadway design, hydraulic design, environmental permits, traffic management, pavement marking, signing, and signal design.

City of Raleigh, Blue Ridge Road Widening, Raleigh, NC — Project analyst. Kimley-Horn is providing engineering services for the widening of approximately 2.1 miles of Blue Ridge Road, from Duraleigh Road to Crabtree Valley Avenue. The project consists of widening Blue Ridge Road from a basic two-lane roadway to a three-lane multimodal curb and gutter section with bicycle lanes and sidewalks on both sides from just north of Duraleigh Road to Glen Eden Drive. From Glen Eden Drive to Crabtree Valley Avenue, Blue Ridge Road will be widened to a multimodal two-lane avenue, with a divided section with curb and gutter, bicycle lanes, and sidewalks on both sides. The Kimley-Horn team's services include location surveys, photogrammetric mapping, property/right-of-way surveys/exhibits, SUE, geotechnical investigations, traffic engineering, roadway design, hydraulic design, BMP investigation/design, floodplain modeling, pedestrian culvert feasibility analysis, traffic signal design (temporary and final), transportation management, pavement marking and signing, erosion control, utility coordination, street light coordination, structure design, environmental permits, project meetings, project coordination, public involvement, public communication services, utility design, landscape design, contract documents, and bid phase services.

EB-6021 Apex Beaver Creek Greenway Kelly Park to Apex Nature Park, Apex, NC — Project analyst. Kimley-Horn was selected by the Town of Apex to design the Beaver Creek Greenway. This greenway was identified as the Town's number one priority during their 2013 Parks, Greenways, and Open Space Master Plan. As the final segment connecting Jaycee park to the Apex Nature Park, the identified project corridor follows the construction of the Beaver Creek sewer project and includes significant environmental and geometric challenges. The Kimley-Horn team is implementing a sensitive approach using highly accurate survey data and an awareness of environmental features from actual field observations to design an alignment that minimizes impacts to the greenway's natural setting and enables the Town to maintain its new sewer facilities. In addition, we have made recommendations for open-slotted boardwalks to streamline the permitting process and a concrete pavement section to mitigate future maintenance requirements in flood-prone areas.

Special Qualifications

- More than two years of experience preparing environmental documentation, including EISs and EAs, for a variety of transportation projects
- Specializes in leading public involvement and agency coordination tasks for municipal and federally funded LAPP projects
- Proficient with ArcGIS and Microsoft Project software

Professional Credentials

- Master of Science, Civil Engineering, West Virginia University
- Master of Business Administration, West Virginia University
- Bachelor of Science, Civil Engineering, West Virginia University,

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Paloma Mendoza, EIT

Analyst Support

Representative Experience

Florida Statewide Aviation Economic Impact Study, FDOT Central Office, Statewide, FL

Project analyst. This study provides the latest available information on the impact of the State's aviation industry on Florida's economy. The study will focus on factors that impact aviation economic activity such as employment, industry trends, air freight, and population. In addition, the overall role of aviation in supporting the state's economy is reported at the national, statewide, regional, and local levels. Airport brochures, a technical report, district reports, and outreach toolkit are developed as part of the project.

Market Square Redevelopment, Tallahassee, FL — Project analyst. Kimley-Horn is the civil

engineering consultant on the Market Square Redevelopment project located at the southwest corner of Timberlane Road and Thomasville Road. This project includes elements of hardscape, sense of place, pedestrian connectivity, utility upgrades, pavement assessment and rehabilitation, stormwater conveyance and storage, and a multi-discipline team. This project will serve the following purposes: strengthen the vision of the area as outlined in the Market District Action Plan; enhance existing community assets; add to the current uses; and foster the "brand" of this unique segment of Tallahassee.

Ithaca Tompkins Regional Airport Wildlife Hazard Assessment, Ithaca, NY — Project assistant. Evaluated field conditions to inform an established wildlife hazard management plan for Ithaca Tompkins Regional Airport while participating in Advanced Airport Wildlife Hazard Management training course.

Global Home of the PGA TOUR, Ponte Vedra Beach, FL — Project analyst. Kimley-Horn was selected to provide professional planning and civil engineering services for the development of the new 187,000-square-foot Global Home of the PGA TOUR. In addition to the three-story Global Home building, the site will include future office expansion areas, a spectator village, as well as an admissions gate and shuttle drop-off zone. Kimley-Horn is providing entitlement planning, engineering, and permitting services. The scope of services also includes roadway design, traffic engineering, signal design, civil/site plans, and construction phase services. Kimley-Horn is coordinating permitting for the Global Home project through St. Johns County, St. Johns River Water Management District (SJRWMD), and the U.S. Army Corps of Engineers (USACE).

Crystal Lagoons Beachwalk, St. Johns County, FL — Project analyst. Kimley-Horn was selected to provide professional civil and landscape architectural services for the development of this luxury living community featuring a 14-acre crystal lagoon as the centerpiece—the largest man-made water feature in the U.S. The project includes 800 home sites, a clubhouse, and over 3 million square feet of retail and commercial space along CR 210. Kimley-Horn has been involved in this project since conceptual planning. Specific services provided include conceptual design, full civil/site plans, construction documents, permitting, bidding assistance, and construction phase services.

Districtwide Traffic Operations Studies, FDOT District Two — Project analyst for this Districtwide contract which has included 90 task work orders to date. Types of studies completed under this contract have included, intersection operational analyses, access management analyses, signal warrant studies, turn-lane warrant studies, roundabout analyses, collision diagrams, and traffic signal phase analyses. Tasks included the examination of crash data, warrant analyses, delay studies, and a qualitative assessment of field conditions and traffic operations.

Special Qualifications

- More than two years of experience

Professional Credentials

- Bachelor of Civil Engineering, Civil Engineering, Vanderbilt University
- Engineering-in-Training in Tennessee, #33366

Brian Pownall

Analyst Support

Representative Experience

NCDOT Express Concept Designs, Statewide, NC — Project analyst. Kimley-Horn partners with the NCDOT Feasibility Studies Unit to develop “Express Designs,” a streamlined concept design that includes plan and profile roll plots, an environmental features map, and preliminary cost estimates for construction, right-of-way, and utilities. Elements of the express design include a typical section, horizontal and vertical alignments, edge of travel, construction limits, and right-of-way. Designs are developed using LiDAR shell mapping and aerials. The express design package is submitted to the NCDOT project prioritization process that scores potential projects for funding in the future years State Transportation Improvement Program (STIP). NCDOT has found it beneficial to develop this package early on as it can provide a better indication of the project costs and impacts than other high-level tools and approaches, which can help to more accurately score potential projects for funding.

U-5811, Aviation Parkway Widening, Morrisville, NC — Project analyst. Kimley-Horn is providing planning, environmental, and engineering services to widen Aviation Parkway (SR 1002) from a two-lane to a four-lane, median-divided roadway with curb and gutter. Extra wide outside lanes will accommodate bicycles, streetside trails, and sidewalks that will serve pedestrians. Tasks will include planning and environmental analyses and documentation, traffic analysis, traffic forecasting, roadway design, and a hydraulic technical memorandum.

Apex Jessie Drive Improvements and Extension, Apex, NC — Project analyst. Jessie Drive is a key east-west route that will connect with other existing and proposed routes to improve the roadway network in southeast Apex. As detailed in the Apex Transportation Plan, Jessie Drive is needed to alleviate congestion along NC 55 and US 1 and will provide an important access point to several existing and proposed developments. This new route will address existing traffic concerns, help facilitate development, and address traffic that will be added to the network as a result of those developments. As part of the feasibility study, Kimley-Horn is providing data collection, traffic forecasting and analysis, roadway design and alternatives development, and public involvement services.

EB-6021 Apex Beaver Creek Greenway Kelly Park to Apex Nature Park, Apex, NC — Kimley-Horn was selected by the Town of Apex to design the Beaver Creek Greenway. This greenway was identified as the Town’s number one priority during their 2013 Parks, Greenways, and Open Space Master Plan. As the final segment connecting Jaycee park to the Apex Nature Park, the identified project corridor follows the construction of the Beaver Creek sewer project and includes significant environmental and geometric challenges. Particularly, the project encounters protected Jordan Lake Water Supply Watershed riparian buffers with jurisdictional wetlands and streams. The Kimley-Horn team is implementing a sensitive approach using highly accurate survey data and an awareness of environmental features from actual field observations to design an alignment that minimizes impacts to the greenway’s natural setting and enables the Town to maintain its new sewer facilities. In addition, we have made recommendations for open-slotted boardwalks to streamline the permitting process and a concrete pavement section to mitigate future maintenance requirements in flood-prone areas. The Kimley-Horn team is now completing an extension to the greenway, which will add approximately 1.24 miles of 10-foot greenway (0.55 miles), 10-foot boardwalk/bridge (0.55 miles), and 8-foot greenway spur (0.14 miles). The extension will connect from Kelly Park, under Kelly Road, to Apex Barbecue Road along the existing sewer easement. A greenway connection will be made along the west side of Apex Barbecue Road from the proposed greenway to the existing greenway north of Evans Road. An existing shared 40-foot greenway and sewer easement has previously been obtained and the proposed design is intended to use the existing easement to the extent possible.

Special Qualifications

- Specializes in preparing environmental documentation, including EISs and EAs, for roadway, ITS, and other transportation projects
- Has experience working on municipal and federally funded LAPP projects
- Proficient with ArcGIS and Microsoft Project software
- Experience with NEPA/SEPA document preparation and GIS mapping

Professional Credentials

- Bachelor of Science, Civil Engineering, North Carolina State University
- National Safety Council, FirstAid/CPR/AED Certified



Madi Vercelli, EIT

Analyst Support

Special Qualifications

- Dedicated aerospace and spaceport professional with planning and engineering experience at several commercial U.S. spaceports, including Houston Spaceport, Colorado Air and Space Port, and Cape Canaveral Spaceport Shuttle Landing Facility
- Experience includes spaceport planning, explosive siting, development of concept of operations, review of flight trajectories and safety analysis, environmental review, and preparation of launch site operator license application documentation
- Proficient in MATLAB, Simulink, Python, Creo, LaTeX, and Microsoft Office

Professional Credentials

- Bachelor of Science, Mechanical Engineering, University of Illinois at Urbana-Champaign
- Master of Science, Mechanical Engineering, University of Illinois at Urbana-Champaign
- Engineer-in-Training in Colorado (#EI.0075650)

Representative Experience

Florida Statewide Aviation Economic Impact Study, FDOT Central Office, Statewide, FL

Project analyst. This study provides the latest available information on the impact of the State's aviation industry on Florida's economy. The study will focus on factors that impact aviation economic activity such as employment, industry trends, air freight, and population. In addition, the overall role of aviation in supporting the state's economy is reported at the national, statewide, regional, and local levels. Airport brochures, a technical report, district reports, and outreach toolkit are developed as part of the project.

Pinellas County, St. Pete-Clearwater International Airport, Master Plan, Clearwater, FL

Project analyst. As a subconsultant, Kimley-Horn is providing landside planning for the terminal access and curbside roadways, parking, and rental car facilities in support of the terminal area master plan. The facilities that are being studied include the terminal area curbsides and access roadway, short- and long-term parking lots, economy parking, employee parking, and rental car facilities and parking. The study will focus on documenting the existing landside conditions, assessing terminal and access roadways, and parking areas to identify congestion points, and develop improvements to mitigate the identified congestion points. For the rental car facilities, Kimley-Horn will compare capacity and future demand and identify future requirements for terminal counters, booths, ready/return spaces, quick-turnaround (QTA) facilities, remote storage/maintenance, and access and traffic patterns for jockey trips.

Pitkin County, Program Management Services for the Aspen/Pitkin County Airport Capital Improvement Project (ASE), Aspen, CO

Project analyst. Kimley-Horn was the program manager for the Aspen-Pitkin County Airport (ASE) program, which was at the precipice of refining and determining the prioritization of investments during the next 30 years. ASE is unique in every way—space-limited; surrounded by sensitive resources; and represented by a thoughtful, involved community with a unique perspective on valleywide needs for service and tourism and focused on sustainable development. Kimley-Horn's role was to manage and deliver the airport's capital improvements program as well as the complex projects that may shape and change the airport into the future.

Norfolk International Airport, Runway 5/23 Pavement Rehabilitation and Centerline Light Replacement, Norfolk, VA

Runway 5/23 evaluation included structural evaluation with heavy-weight-deflectometer, pavement coring, geotechnical boring, pavement condition assessment in accordance with ASTM D5340 to define distresses, rehabilitation recommendations and alternatives including cost analysis. Evaluation identified alkali silica reactivity distress and an issue with light can settlement. The evaluation project resulted in Phase I rehabilitation of the runway including light can stabilization and a mill and overlay of the keel. Phase II will include rubblization of the runway ends, raising profile of the 23 end, and mill and overlay of the outer sections. Recently featured in Airport Improvement Magazine May/June 2019 issue.

Space Florida, Spaceport General Consulting, FL — Project analyst. Kimley-Horn is a subconsultant for this on-call contract. Kimley-Horn provides spaceport planning and program development, engineering and environmental services, construction administration, and other technical support to Space Florida and FDOT.



Tad Hardy, P.E.

Noise Reports and Monitoring

Representative Experience

Apex Peakway Southeast Connector Feasibility Study, Apex, NC — Project analyst. This study provides the latest available information on the impact of the State's aviation industry on Florida's economy. The study will focus on factors that impact aviation economic activity such as employment, industry trends, air freight, and population. In addition, the overall role of aviation in supporting the state's economy is reported at the national, statewide, regional, and local levels. Airport brochures, a technical report, district reports, and outreach toolkit are developed as part of the project.

Pinellas County, St. Pete-Clearwater International Airport, Master Plan, Clearwater, FL

Project analyst. As a subconsultant, Kimley-Horn is providing landside planning for the terminal access and curbside roadways, parking, and rental car facilities in support of the terminal area master plan. The facilities that are being studied include the terminal area curbsides and access roadway, short- and long-term parking lots, economy parking, employee parking, and rental car facilities and parking. The study will focus on documenting the existing landside conditions, assessing terminal and access roadways, and parking areas to identify congestion points, and develop improvements to mitigate the identified congestion points. For the rental car facilities, Kimley-Horn will compare capacity and future demand and identify future requirements for terminal counters, booths, ready/return spaces, quick-turnaround (QTA) facilities, remote storage/maintenance, and access and traffic patterns for jockey trips.

City of Hampton, Coliseum Drive Extension, Hampton, VA — Project engineer. Kimley-Horn is designing the extension of Coliseum Drive by approximately 1,650 feet from Hampton Roads Center Parkway to Butler Farm Road. The Coliseum Drive extension will be a four-lane, divided roadway with curb and gutter. Kimley-Horn is performing a traffic noise analysis including ambient noise measurements, TNM modeling, and documentation preparation. Public involvement to select alignment alternatives and seek input from adjacent property owners is included with this project. Since there is federal funding, the project will be designed according to NEPA.

City of Jonesboro, Highway 18 Railroad Overpass NEPA Documentation, Jonesboro, AR

Project engineer. The City of Jonesboro proposed to construct a railroad grade separation over the BNSF railroad tracks on Highway 18, a main arterial that is part of the Arkansas Primary Highway Network and the National Highway System. Kimley-Horn provided environmental and engineering investigations and analyses, agency coordination, and public involvement necessary to prepare a NEPA document for the project. Preliminary environmental data associated with the project area was collected and assessed for the social, economic, and environmental impacts, including air and noise quality, hazardous materials, wetlands and stream impacts, water quality, endangered species, archaeological and historical sites, and cumulative impacts. Kimley-Horn prepared a Categorical Exclusion and submitted the document to the Arkansas State Highway and Transportation Department (AHTD) for FHWA approval. The firm also coordinated and attended public hearings.

Georgia DOT, SR 10/US 78 Widening and Lexington Bypass (aka Lexington Road (US 78) Widening and Reconstruction, Air Quality and Traffic Noise Analysis), Clarke and Oglethorpe Counties, GA — Project analyst. Kimley-Horn is preparing design plans and NEPA documentation

for approximately 8 miles of widening along US 78. The project includes 8 miles of widening roadway design, including bridge and environmental elements. Kimley-Horn is leading the environmental tasks, which include coordination among multiple design teams. Environmental services include a survey for protected species habitat, wetland and stream identification and delineation, GPS mapping, and preparation of special studies required by GDOT (ecology, air quality, noise, history, and archeology).

Special Qualifications

- Specializes in environmental and community studies
- Experienced in traffic noise analysis and mitigation
- Proficient in GIS mapping and data consolidation

Professional Credentials

- Master of Science, Civil Engineering, Clemson University
- Bachelor of Science, Civil Engineering, Clemson University
- FHWA-NHI-142051 Highway Traffic Noise Training
- FHWA Traffic Noise Model 2.5
- Professional Engineer in North Carolina and South Carolina

Tad Hardy, P.E.

Representative Experience Continued

U-2579, Winston-Salem Northern Beltway, Eastern Section Extension Design Noise Report, Forsyth County, NC — Project engineer. Kimley-Horn prepared the design noise report for the Winston-Salem Northern Beltway, Eastern Section Extension project. This task included coordination with North Carolina DOT's roadway design and design build teams, conducting ambient measurements, TNM modeling, noise barrier analysis, noise wall envelopes, and preparation of the corresponding documentation.

U-3467, Rea Road Extension Traffic Noise Analysis, Weddington, NC — Project engineer. Under our Traffic Noise and Air Quality Assistance on-call contract, Kimley-Horn prepared the traffic noise analysis for the widening and extension of Rea Road (NC 84) in Weddington. Tasks included coordination with the lead engineer for the roadway design and traffic volumes, conducting ambient measurements, TNM modeling for five alternatives, and preparation of the corresponding documentation. The traffic noise analysis was reviewed and approved by NCDOT.

U-5785 and U-5870, Fire Tower Road and Portertown Road Widening Air Quality and Traffic Noise Analyses, Greenville, NC — Project engineer. Under our Traffic Noise and Air Quality Assistance on-call contract, Kimley-Horn prepared the air quality and traffic noise analyses for the widening of Fire Tower Road and Portertown Road from NC 43 to NC 33 in Greenville. The air quality analysis included the preparation of a qualitative mobile source air toxics assessment. The traffic noise analysis included coordination with the lead engineer for the roadway design and traffic information, conducting ambient measurements, TNM modeling, noise barrier analysis, and preparation of the corresponding documentation. The design noise report is currently being prepared.

Atlanta BeltLine, Inc., Design Engineering and Consulting for the Westside Transit Corridor, Atlanta, GA — Project engineer. Kimley-Horn is provided engineering support, public involvement, and designs, plans, and studies to support the environmental assessment for the completion of the appropriate NEPA documents and ultimate submittal of New Starts application to the FTA for Westside Atlanta BeltLine light rail/streetcar corridor identified as Segments 4 and 6. This corridor runs 3.7 miles north-south along the Atlanta BeltLine West Corridor from University Avenue on the south to Boone Boulevard on the north. Kimley-Horn provided conceptual design track plans in support of the environmental documents. We also conducted a route analysis study to determine the best way to connect the BeltLine transit corridor to the planned streetcar system and existing Metropolitan Atlanta Rapid Transit Authority (MARTA) system. Other tasks included developing a program for the conceptual design for a vehicle storage and maintenance facility.

Chattanooga Rail Transit Implementation Plan, Chattanooga, TN — Project engineer. The City of Chattanooga has a long and robust history with the railroad industry. However, over the years portions of railroad infrastructure have become dormant or underutilized and ripe for reuse. The City recently received a TIGER grant from the Federal Transit Administration (FTA) to assess underutilized rail infrastructure for potential passenger service viability. Kimley-Horn analyzed existing conditions for rail road infrastructure within Chattanooga, primarily along the Tennessee Valley Railroad Museum and East Chattanooga Beltway rail lines and made determination on suitability for re-use for passenger service. Additionally, Kimley-Horn developed three alignment alternatives for future consideration, while considering numerous transit technologies such as streetcar, light rail, commuter rail, rapid rail, intercity rail, and bus.

These alternatives connect key destinations such as southern Chattanooga, the Chattanooga Choo, downtown Chattanooga, the Chattanooga Zoo, the Tennessee Valley Railroad Museum, the Chattanooga airport, and the Enterprise South Industrial Park. Working with the public and key stakeholders, Kimley-Horn identified preliminary station areas and related bicycle and pedestrian enhancements. This study is anticipated to be completed by summer 2016 with the resulting selection of a preferred alternative and development of an implementation plan. The project is expected to proceed into the National Environmental Policy Act (NEPA) planning process.

Chris Niforatos, P.E.

Sustainability and Resiliency, On-Call Program Management

Representative Experience

Resiliency Plan, City of Sebastian, FL — Technical consultant. Helped client secure funding through FDEP's Resilient Coastlines Program. Leading coastal flooding analysis to assess impacts of sea level rise, rainfall and surge on City's critical infrastructure which includes roads, emergency shelters, and city buildings.

Business Case Analysis for the City of Miami Beach Stormwater Resiliency Program Pilot Project, Miami Beach, FL — Working as a subconsultant to assist in the development of a pilot study to re-evaluate the effects of sea level rise and storm intensification and its impacts on the economy. Reviewed numerical modeling parameters and assessed planning horizons for coastal flooding impacts based on study area.

City of Tallahassee Community Resilience Plan, Tallahassee, FL — Technical lead. Assisting team in development of a community resilience plan. The plan will explore threats to the community, establish a community baseline, assess vulnerabilities and risks, build stakeholder capacity, and identify strategies to adapt and mitigate for acute shocks and chronic stresses.

City of Venice, Preliminary Vulnerability Analysis, Venice, FL — Led the development of a vulnerability assessment of the City's infrastructure with respect to coastal flooding and wind. The infrastructure included five critical lift stations, reverse osmosis water treatment plant, water reclamation facility, and several administrative buildings. Evaluated future sea level projections, rainfall, surge, and wind data and their impacts on designated infrastructure. Developed a matrix to assess criticality of the assets and identified adaptation measures to harden the assets as well as strategies to increase adaptive capacity.

Lake Worth Neighborhood Road Program Year 1, Year 2, and Year 3, Lake Worth, FL — Technical lead. Assisting team in development of a community resilience plan. The plan will explore threats to the community, establish a community baseline, assess vulnerabilities and risks, build stakeholder capacity, and identify strategies to adapt and mitigate for acute shocks and chronic stresses.

St. Pete Beach, Coastal Resiliency Plan: Funding and Flooding Vulnerability Assessment, St. Pete Beach, FL — Project engineer. Kimley-Horn is providing general engineering services to identify funding sources available for the City's evolving resiliency program. The goal of this program is to evaluate available national, state and local resources available and identify grant funding sources, including application requirements and deadlines. In addition, areas within the City limits that are vulnerable to flooding due to storm events and sea level rise will be identified.

Energy Management Program for Tampa Bay Water, Clearwater, FL — The Energy Roadmapping process combined a review of current budgeted activities, operational considerations with the strategic as well as tactical goals of the organization. The process included a review of current and planned activities in the Capital Improvement Plan, multiple interviews with key stakeholders, an analysis of practices as well as an examination of work processes as they relate to energy. The perspective in road mapping is looking backwards from the future, in Tampa Bay Water's case, 2020, identifying the desired state and then the steps it took to get there.

Based on the steps and the analysis of existing projects, the team identified a number of gap opportunities for Tampa Bay Water to expand its energy efficiency opportunities. These gaps cut across

Special Qualifications

- Kimley-Horn's National Resilience Practice Leader with a strong background in vulnerability assessments and the development of resilience plans for coastal communities
- Successful record of leading communities through the resiliency planning process and designing a resiliency plan that is deliberate, customizable to the values of the community, and implementable
- Experience in preparing energy road maps and evaluating renewable energy

Professional Credentials

- Master of Business Administration, Business Administration, University of South Florida
- Master of Engineering, Environmental Engineering, University of South Florida
- Bachelor of Science, Civil Engineering, Clarkson University
- Professional Engineer in Florida, #56881
- Certified FDEP Sediment and Erosion Control Inspector #20856

Chris Niforatos, P.E.

Representative Experience Continued

the organization as well as the timeframe of the Roadmap with some being “quick hits” that can be immediately initiated, others that are mid-term in time and others which involve a longer term process. The gap projects are not purely technology and software but also touch workforce management issues, policies and stakeholder engagement.

Beyond the addition of gap projects there were other opportunities that were identified to be accelerated as Tampa Bay Water moved along the Roadmap path. These included accelerating the deployment and linkage of planned Supervisory Control and Data Acquisition (SCADA) projects, instituting pump prioritization, expanding the tools used for management and reporting of energy and continuing to focus on energy in facilities and in vehicles.

Everglades Restoration Services, South Florida Water Management District, FL — Principal-in-charge for a 5-year contract to provide professional services associated with the restoration of one of America’s largest freshwater wetland systems as part of a \$880M program. Projects awarded included construction management services for the S5A Divide Structure, STA1W, the design of a 7.5-mile-long levee, 6L’s Protection Feature; and data documentation in support of the 298 Special Districts and Eastern Flow Path. Prior to landing this contract, Successfully landed the A-1 Flow Equalization Basin (60,000 AF) construction management services.

Science and Technology Services, South Florida Water Management District, FL — Principal-in-charge for a multi-year contract to provide professional services associated with providing niche skills in programming and software development. Oversaw delivery of technical support for EAA BMP Rule Models (code adaptation to evaluate BMP efficacy), and inventory and assessment of all hydrological models (evaluation of all (80) hydrological models and assessing the level of data needed to convert models in support of vertical datum upgrade).

Energy Management Program, Tampa Bay Water, Tampa, FL — Project director. Worked in collaboration with Tampa Bay Water staff to deliver an energy management roadmap. The goal of the Energy Roadmap was to provide a planning basis for a 10-year look at issues of energy, the organization’s single largest variable and controllable expense. The energy road mapping process combines a review of current budgeted activities, and operational considerations with the strategic, as well as tactical, goals of the Agency. The process included a review of current and planned activities in the Capital Improvement Program (CIP), multiple interviews with key stakeholders, and an analysis of practices, as well as an examination of work processes as they related to energy. Presentations were made to key Tampa Bay Water staff for buy-in and to facilitate the development of a report. Tampa Bay Water adopted the roadmap and invested more than \$1 million for implementation.

C.W. Bill Young Regional Reservoir – Solar Evaluation, Tampa Bay Water, FL — Technical consultant. Conducted a feasibility assessment of installing a photovoltaic system at the Agency’s 15.5-billion gallon above-ground, banded reservoir. Inputs included the evaluation of different PV technologies, interconnections, ownership options, regulatory requirements, and project funding opportunities for comparing a ground-mounted versus a floating system.

Rapid Flood Inundation Assessment, Big Cypress and Immokalee Reservations, Seminole Tribe of Florida — Project manager. Delivered a rapid flood inundation assessment for the Big Cypress and Immokalee Reservations. Facilitated a series of meetings with the Tribe to discuss the functionality of the technology and how it may be applied to assess impacts with sea-level rise and extreme weather events. The results were used to help identify areas of flood risk and prioritize field data collection for detailed analyses.

Dunedin Watershed Management Plan, Dunedin, FL — Project manager. Kimley-Horn completed a peer review of the Dunedin Watershed Management Plan. The goal of the peer review was to evaluate the reasonableness of the datasets and model (ICPR4) that were used to project the floodplains. The peer review was broken down into three review phases which included basins, model parameters, and floodplains. Each phase resulted in the development of a peer review comment shapefile and Kimely-Horn staff led review meetings to discuss results with the watershed consultant and City staff. During the review process, Kimley-Horn coordinated with the watershed consultant and City for supporting background information, as well as to review initial findings prior to having the formal review meetings (web-based). The project was delivered on time and within budget.



Frank Suarez

Environmental Planning and Regulatory Compliance, On-Call Program Management

Representative Experience

SW 10th Street PD&E Study (Sawgrass to I-95), FDOT District Four — Environmental scientist who assisted with this project located in South Florida. Kimley-Horn is providing public involvement, design, and traffic engineering support services as a subconsultant to another firm for this politically charged PD&E study in Broward County. The study's goal is to look at options to provide connectivity between Florida's Turnpike, Sawgrass Expressway, and I-95 — three major limited-access, SIS facilities in South Florida. Other goals include enhanced local access for businesses and communities; provisions for multimodal, bicycle and pedestrian facilities; provisions for future express bus service; and design services to increase capacity and eliminate existing operational and safety deficiencies along SW 10th Street. The existing SW 10th Street facility between Florida's Turnpike and I-95 is the missing link in the existing/planned regional express lanes network in Broward County. Traffic volumes have consistently increased the past 15 years and are projected to grow. During peak times, existing traffic levels exceed the roadway's capacity. The study's goal is to creatively find an environmentally feasible engineering solution that improves safety and provides an efficient traffic solution between the Sawgrass Expressway, Florida's Turnpike, and I-95 while maintaining nearby residents' quality of life.

Space Coast Trail PD&E Study, FDOT District Five — Environmental scientist who assisted with report documentation and GIS mapping. Kimley-Horn was retained by FDOT District Five to conduct a PD&E study for three segments of Space Coast Trail. Our team is evaluating the following alternatives: shared-use trails, regional trail connections, and buffered bike lanes for crossing the Haulover Canal. The preliminary assessment involves data collection and conceptual design alternatives incorporating Complete Streets into the selected areas. Environmental services include conducting habitat mapping, Florida scrub-jay surveys, gopher tortoise surveys, and writing and submittal of NEPA documentation (Natural Resource Evaluation and Contamination Screening Evaluation Report). The use of public meetings helped gauge the community's input regarding the development of the project.

Quincy Loop South PD&E Study from SR 267 to SR 10 (US 90) East, FDOT District Three Environmental scientist for the Kimley-Horn team responsible for conducting field work for federal and state listed wildlife and plant species. Also, assisted with wetland delineations and support for NEPA documentation. Kimley-Horn is the prime consultant completing the PD&E Study for the southern portion of the "Quincy Bypass" in Gadsden County for District 3 of FDOT. The PD&E Study is being completed to evaluate corridor alternatives for the third portion of the Quincy Bypass; the eastern portion is already constructed and the northern portion is in the Design phase. The Bypass is intended to divert through passenger and heavy vehicle traffic around the historic downtown Quincy area, providing a safer, more pedestrian- and bicyclist-friendly environment. Kimley-Horn has conducted much of the transportation demand modeling, traffic operational and safety analysis, environmental impact analysis, alignment generation, and public involvement.

Poinciana Parkway Extension PD&E Study, Central Florida Expressway Authority, Osceola & Polk Counties, FL — Environmental scientist who is currently assisting with the Natural Resources Evaluation, Sociocultural Effects Report, and alternatives analysis. Included in these efforts are protected species surveys, GIS mapping, evaluation of possible wetland & wildlife impacts, and evaluation of possible impacts to community facilities. Kimley-Horn is currently conducting a Concept, Feasibility, and Mobility Study for this planned expressway which will widen the existing Poinciana Parkway and extend it to Osceola-Polk Line Road. Existing environmental and physical constraints have been identified, which include mitigation banks, wetlands, cemeteries and extensive utilities. Alternative alignments have been developed to minimize impacts and these alternatives are currently being

Special Qualifications

- Experience conducting protected species surveys such as Florida scrub-jay surveys, gopher tortoise surveys, sand and blue-tailed mole skink coverboard surveys, Johnson's seagrass surveys, Audubon's crested caracara surveys, Florida sandhill crane nest surveys, and Everglade snail kite surveys
- Experience with performing wetland delineation, environmental due diligence, and regulatory agency coordination
- Experience with NEPA natural resources documentation
- Highly proficient in Geographic Information Systems mapping

Professional Credentials

- Bachelor of Science, Biology and Environmental Studies, University of Central Florida

Frank Suarez

Representative Experience Continued

evaluated. Extensive stakeholder meetings and coordination has occurred with property owners, utilities, developers, local governments, FDOT, and Florida's Turnpike.

Mosaic South Fort Meade Mine Extension Wetland Delineation & Jurisdictional Determination, Bowling Green, FL

Environmental scientist who helped perform wetland delineation of a 4,000-acre site, led team of FDEP reviewers throughout the site, performed GIS mapping of the on-site wetlands, and coordinated with FDEP and USACE to submit the formal wetland determination & jurisdictional determination.

Modern Roundabout Improvement Design / PD&E for US 41 and Gulfstream, FDOT District One, Sarasota, FL

Environmental scientist who assisted with report documentation and GIS mapping. Kimley-Horn performed professional engineering services for the state's first State-Wide Acceleration and Transformation (SWAT) project for the multi-lane roundabout at the intersection of U.S. 41 and Gulfstream in downtown Sarasota.

SR 659 (Combee Road) PD&E Study from US 98 to Skyview Drive, FDOT District One —

Environmental scientist who assisted evaluation of roadway alternatives with respect to wetland and protected species involvement and documented findings in NEPA Natural Resources Evaluation report. Kimley-Horn is performing a PD&E study to prepare design alternatives for the corridor that serves pedestrians and bicycles, improves transit facilities, and optimizes vehicle access. The study team will analyze and assess the project's impact on the social, economic, cultural, natural, and physical environment to develop the Location and Design Concept Acceptance (LDCA), in accordance with FDOT policy, procedures, and requirements.

Lost Oak Resort Master Plan, Lake Wales, FL — Environmental scientist conducting wildlife surveys of Everglades snail kite, crested caracara, Florida grasshopper sparrow and sandhill crane nests. Kimley-Horn provided preliminary engineering and consulting services for this resort development. Services included preparation of a conceptual master plan and preliminary design concepts for permitting. The resort is proposed to include three golf courses, a clubhouse, a marina, sporting clay areas, and rental cabins.

St. Johns County Water Access Properties Feasibility Study, St. Johns County — Lead environmental scientist responsible for field reconnaissance, data collection, analysis, and preparation of an evaluation matrix for existing and proposed St. Johns County boat ramp sites. The scope includes performing a limited due diligence analysis of each property, preparing conceptual site plans, and evaluating each site for possible environmental and design constraints. Environmental constraints included wetland impacts, surface water impacts, and protected species habitat impacts.

SUN Trail – FEC Railroad Bridge Feasibility Study, FDOT District Four — Environmental scientist who assisted with report documentation. Kimley-Horn was retained by FDOT District Four to prepare a feasibility study for the FEC Railroad Bridge – Savannas Recreation Area to Indian Hills Recreation Area. This will include identifying environmental fatal flaws, potential right-of-way effects and alternatives to avoid right-of-way, preparation of typical sections, and Long Range Estimate.

Best Western Orlando East Parking Expansion, Orlando, FL — Environmental scientist responsible for field reconnaissance, data collection, analysis, document preparation, and composition of a Natural Resource Assessment (NRA). Our team is conducting a due diligence investigation for the hotel to add additional parking on an adjacent lot, which may require moving an existing retention pond. The scope includes performing a limited due diligence analysis of the property, preparing a conceptual site plan, and compose the NRA.

Freedom Marina Center, Deerfield Beach, FL — Environmental analyst responsible for assisting with environmental permits for this proposed redevelopment. Permits included Environmental Resource Permit through the Florida Department of Environmental Protection, Right-of-way Permit South Florida Water Management District, Environmental Resource License through Broward County and an Individual Permit through the USACE. Permits included coordination and creation of a suitable mitigation plan for mangrove impacts.

JASON T. DIGUGLIELMO, LEED AP, CIE

SITE INVESTIGATION SERVICES

INTRODUCTION

Mr. DiGuglielmo has more than 18 years of professional experience in site investigation services, indoor air quality investigations, soil and groundwater remediation, environmental site assessments and compliance, and inspection of stormwater erosion and sedimentation control. Mr. DiGuglielmo's experience also includes observation of subcontractors and supervision of projects involving collection of field data.

PROJECTS

Limited Phase I Environmental Site Assessment; Madison, FL – Environmental .Madison County RS&H completed a Phase 1 Environmental Site Assessment for Madison County's no-cost parcel acquisition. Performed a Phase I Environmental Site Assessment at the Florida Department of Transportation's maintenance yard in Madison, Florida. Project activities included performing the assessment in general accordance with the American Society for Testing and Materials (ASTM) Designation E 1527-05. Based on the Phase I findings, RS&H initiated a Phase II ESA to evaluate subsurface soil and groundwater quality at the site. Phase II ESA field activities included oversight of drilling contractor for the installation of direct-push soil borings, and soil and groundwater sampling. Also prepared a Phase I ESA Report and Limited Phase II ESA Report.

SR 54 Reconstruction East of I-75 to East of Curley Road; Wesley Chapel, FL - Environmental. Pasco County RS&H provided design services to improve 4 miles of SR 54 from west of I-75 to east of CR 577/Curley Road. The project included a portion of CR 54 from west of I-75 to SR 581 and is located on SR 54 through the remainder of the project limits. The existing segment from west of I-75 to approximately 0.26 miles east of SR 581 was a multilane facility. The typical section includes three through lanes, double left turn lanes, and separate right turn lanes at SR 581, as well as auxiliary lanes. From SR 581 to east of Curley Road, an existing two-lane road, the typical section includes a 22-foot median with three travel lanes. Both sections have an undesignated bike lane in each direction and sidewalks. Revising the roadway from a two-lane rural to a six-lane urban roadway added sorely needed capacity to this rapidly developing area and alleviated mile-long traffic backups both east and west-bound. Major challenges included maintaining communication and coordination between Pasco County and FDOT. Performed a Level 2 Environmental Investigation for the Pasco County Department of Engineering Services and the Florida Department of Transportation. Responsible for management, scheduling and oversight of subcontractors for the installation of Geoprobe® soil borings. Field sampling activities included collection of 24 soil and groundwater samples and logging of soil boring cores at seven (7) gas stations and auto repair facilities. Responsibilities also included preparation and delivery of the Level 2 Contamination Impact Assessment report.

St. Marks Trail Widening; Environmental Site Assessment , FL - Environmental. RS&H developed construction documents, specifications, plans, and cost estimates for the widening and repaving of the St. Marks Historic Rail Trail. The trail was Florida's first rail-to-trail project, and was originally constructed only 8 feet wide. RS&H prepared plans for widening and resurfacing the trail in accordance with current standards, which call for a 12-foot-wide surface. A portion of the trail is shared by equestrian users, requiring adequate space for shared activities. Vital to the success of the project was the careful protection of the natural environment along the corridor. To preserve

existing trees, RS&H developed detailed specifications to guide the contractor's activities during construction. Extensive drainage improvements were also designed. RS&H applied for permits through the North Florida Water Management District and Army Corp of Engineers, and assisted with construction administration. Performed a Storage Tank System Closure Assessment at the St. Mark's Historical Railroad State Trail, Florida Department of Environmental Protection Office of Greenway and Trails. Performed soil and groundwater site assessment activities in response to discovery of an underground storage tank located onsite during construction. Field activities included advancing hand auger soil borings, logging soil boring cores, and collecting soil and groundwater samples. Responsibilities also included preparation of the Site Assessment Report.

I-95 at Boynton Beach Boulevard PD&E Study; Boynton Beach, FL - .Arcadis U.S., Inc. FDOT conducted a PD&E study for interchange improvements located at I-95 and Boynton Beach Boulevard in Palm Beach County. The primary purpose of the study was to enhance overall traffic operations at the existing interchange by providing improvements to achieve acceptable Levels of Service in the 2040 Design Year. Various improvements were evaluated, including a single point urban interchange and additional capacity via turn lane enhancements.

I-95 at Broward Boulevard Interchange PD&E Study; Fort Lauderdale, FL - .HDR Engineering, Inc. This project's objective is to develop a viable alternative and alignment to increase the level of service of the interchange and adjacent intersections, enhance system linkage and modal interrelationships at I-95 and Broward Boulevard, reduce congestion, and increase safety at the interchange through the 2040 design year horizon. The study will be compatible with the proposed I-95 Phase 3 Express Lanes improvements and will evaluate comprehensive improvements to the surrounding multimodal facilities. RS&H is a major subconsultant providing conceptual drainage, noise, environmental, and contamination analysis for the study.

Veterans Memorial Bridge Design-Build; Palm City, FL - .Archer Western Contractors, LLC RS&H served as the lead design engineer for one of the largest design-build projects the FDOT awarded in 2009. The project, funded by the American Recovery and Reinvestment Act of 2009, was designed on an accelerated schedule. This 3,100-foot, high-level Category 2 bridge structure built within a highly-sensitive environmental corridor provides an important segment in the connection between Florida's Turnpike and US 1/SR 5. The bridge eases congestion, speeds emergency response times, and provides an alternative emergency evacuation route. RS&H completed the design on an accelerated schedule and submitted all permits 24 days after contract execution. The team achieved released-for-construction plans in just 9 months, greatly accelerating the project.

Runway 9-27 and Extension of Runway 18-36 Construction Administration and Resident Project Representative Services; Tallahassee, FL – Environmental. Construction phase services for the reconstruction of Runway 9-27 at the Tallahassee International Airport. Services included Construction Administration and Resident inspection. Components included complete reconstruction of Runway 9-27, drainage, lighting/signage, NAVAIDS and geometric improvements. Performed environmental site assessment and landfill gas monitoring at Taxiway B2. During construction, waste was discovered that was associated with the former Old City of Tallahassee Landfill. Due to health and safety concerns associated with combustible gas in the old landfill, health and safety monitoring for combustible gas was necessary. Field activities included performing test pits to characterize soil for hazardous waste, ambient air monitoring for combustible gas prior to excavation, periodic air monitoring for combustible gas during excavation, and field documentation of landfill waste excavation. Support included report preparation of a Health and Safety Plan, Excavation and Disposal Plan, and Excavation Report.

Underground Storage Tank or Oil Water Separator Tank Site Investigation; Clearwater, FL – Environmental. Project included site investigation of an existing underground storage tank located within the fuel farm at the Airport. The investigation included a site visit to visually review the tank, probing to determine size and sampling to determine pollutant levels. Upon completion of the investigation phase, it was determined that the underground storage tank was likely an oil/water separator which had been abandoned in place.

W. Nassau Soil Assessment; Callahan, FL - Environmental. Provided professional services to evaluate site conditions in response to the January 18, 2017, accidental release of approximately 200 gallons of leachate that reportedly impacted a 50 feet (ft.) by 90 ft. area at the West Nassau County Landfill. The objective of the scope of work is to determine if the release impacted shallow soils. Our services included project coordination, sample collection/laboratory analysis, and reporting. All soil assessment activities were in accordance with the Florida Department of Environmental Protection (FDEP) Standard Operating Procedures (SOPs) for Field Activities, DEP-SOP-001/01, March 2014. Submitted final report to FDEP ahead of schedule. FDEP approved the No Further action request and granted a Site Rehabilitation Completion Order without additional assessment tasks.

WFF Hangars D-1 & N-159 Study; Wallops Island, VA - Environmental. This project encompassed site investigations in the existing facilities and the development of renovation project scopes and associated cost estimates to modernize the facilities and bring them up to code standards. The Project resulted in 18-20 separate project scopes that Wallops Flight Facility can solicit bids for either separately or in groups to meet available funding as it comes available.

CREDENTIALS

Total Years of Experience: 18; With RS&H: 12

Bachelor of Science, Public Health; West Chester University

Certified Indoor Environmental Consultant; American Council for Accredited Certification; 1/31/2020

LEED Accredited Professional; U.S. Green Building Council

KATE LINDEKUGEL

AIRPORT WETLANDS, SITE INVESTIGATION AND PFAS CONSULTING

INTRODUCTION

Ms. Lindekugel has more than 16 years of experience including ecological surveys and field studies, Waters of the U.S. (WOTUS) delineations and functional assessments, preparing environmental reports and permits (CWA 404/401, EIS, EA, SWP3, SWMP and MS4 NOIs, SPCC, CLOMR, and others), data management, water quality monitoring, sampling, and testing, stream channel and wetland restoration, peer reviewed research, and coordinating with local, state, and federal regulatory agencies, as well as public and private stakeholders. In addition to these activities, she also conducts wildlife and threatened and endangered species surveys. She has worked on projects for airports in California, Texas, Oregon, Georgia, North Carolina, Michigan, and Louisiana, as well as other clients such as Departments of Transportation; Regional Mobility Authorities; cities, counties, and other municipalities; 404 mitigation bank sponsors; and non-profit conservation firms.

PROJECTS

On-Call Environmental Consulting Services, Houston Airport System, IAH, HOU, EFD Airports, Texas – Technical Lead. Serving as the technical lead for SWPPP and SPCC plan updates for all 3 airports as well as the airport tenant compliance audits. Ms. Lindekugel was responsible for leading the field team compliance audits and coordination with over 80 airport tenants.

Cypress Slough Mitigation Bank; Various Cities, Texas - Project Manager. RS&H's scope of work was to provide support in responding to the USACE Request for Additional Information and assist with preparing a revised draft mitigation banking instrument (MBI). Based on the ecological lift projected for CSMB, RS&H worked to establish performance standards tied to credit releases. Using the baseline Texas Rapid Assessment Method (TXRAM) data along with the collected reference data, RS&H developed an ecological lift trajectory for each general wetland type (cypress swamp or overcup oak forest) and developed yearly target TXRAM scores. RS&H reviewed previously collected baseline data and identified areas where the TXRAM data may be modified to better reflect the current conditions of the site, while also increasing credit availability. RS&H conducted site visits to collect additional TXRAM data, focusing on key areas where the largest changes were anticipated. The collected field data was processed into supplemental TXRAM data and scoring sheets to be included within the final MBI. RS&H reviewed and provided comments on a draft MBI.

PFAS Determination Work Plan and Implementation, Sacramento International Airport, Sacramento County Department of Airports, Sacramento, CA – Project Manager. The State of California Water Resources Control Board (CWRCB) issued Order WQ 2019-0005-DWQ, and within this Order SMF was identified as certified by the FAA for the use of aqueous film forming foam (AFFF) containing PFAS chemicals. RS&H developed the work plan required by the Order for SMF including identifying AFFF discharges and their extent, potential receptors of PFAS, and sampling protocols for collection of groundwater, soil, and surface water to confirm the presence and extent of PFAS contamination on-site. RS&H coordinated between airport staff, regulatory agencies, and Sacramento County officials to develop a plan with a scope and budget to meet SMF's regulatory obligations. As the technical lead and senior environmental specialist, Ms. Lindekugel was responsible for the data collection, in person interviews, coordination with SMF staff, and final report writing. Ms. Lindekugel was responsible for oversight of the sampling effort and will complete the findings summary report for submittal to the CWRCB. This effort involves coordination with airport staff, the CWRCB, sampling contractors, and laboratory personnel to collect and analyze the data and submit the final report within a highly restricted timeframe.

CREDENTIALS

Total Years of Experience 17; With RS&H 7

Master of Science, Biological Sciences; Clemson University

Bachelor of Science, Biological Sciences; Clemson University

Discovery Science Place

Long Term Ecological Research Network (LTER)

Tyler Area Chamber of Commerce, Texas

OSHA Hazardous Waste Training; United States Occupational Safety and Health Administration

Wetland Delineation Certified Training; U.S. Army Corps of Engineers

BENJAMIN J. MOORE, AICP, LEED AP O+M, GPCP

SUSTAINABILITY AND ENERGY CONSULTING

Responsibilities

Mr. Moore lead's RS&H Sustainability Service Group. He has more than 12 years' experience providing environmental management, energy efficiency, alternative fuels, land use / transportation planning and climate change mitigation / adaptation services on behalf of aviation, federal, local government and private sector clients. He directs, manages or supports programs and projects related to facility energy and water use, greenhouse gas emissions, mobility systems, alternative fuels, materials management, and green building, among other topics.

Experience

- *Tampa International Airport Sustainability Management Plan, Phase 1—Project Manager.* Updating the Airports Sustainability Management Plan and associated tools. In the first phase of effort, conducted a baseline assessment of the airport sustainability program performance; benchmarked performance against peer airports and key stakeholders; surveyed and interviewed airport staff; evaluated program goals and metrics; and developed an updated vision and goals for the airport's new program.
- *Tampa International Airport Phase 1 Master Plan Envision Certification—Project Manager.* Administering certification of the Phase 1 Master Plan under the Institute for Sustainable Infrastructure's Envision rating system. The project involves comprehensively quantifying and documenting the sustainability performance of nearly \$1 billion of new construction projects.
- *Tampa International Airport Resilience Assessment—Sustainability Planner.* Assessing the resilience of airport assets and operations to stressors, including flooding, heat, wind, and rain exacerbated by climate change. Downscaled climate data to the Tampa Bay region to identify stressors and thresholds. Evaluated the likelihood and criticality of potential impacts to estimate risk, consider adaptive capacity and identify and prioritize vulnerabilities. Developed a preliminary action plan for resiliency.
- *Indianapolis International Airport Preliminary Sustainability Plan—Sustainability Planner.* Conducted a baseline assessment of the airport's sustainability performance in nine sectors and benchmarked performance against 44 airport, FAA's six elements of sustainable management plans, and the airports key stakeholders. Oversaw the work of consultants evaluating airport policies and procedures for green building, waste management and renewable energy. Developed a framework for development of a comprehensive sustainability plan.
- *Miami International Airport Commissioning—Project Manager.* Managed a team of mechanical, electrical and architectural commissioning agents conducting commissioning of mechanical, fire protection, plumbing, security, data, electrical infrastructure, lighting and envelope systems of the Consolidated Baggage Inspection System building as part of LEED 2009 "Silver" certification.
- *Indianapolis International Airport Terminal Energy Audit—Project Director.* Organized and oversaw a team of mechanical and electrical engineers to conduct and deliver an ASHRAE Level II energy audit of the Airport Terminal Building. The audit identified 13 energy conservation opportunities estimated to generate over \$300,000 in annual cost avoidance with a simple payback of less than 3 years.
- *United Parcel Service Newark Air Gateway Life Cycle Cost Assessment—Sustainability Planner.* Conducted building life-cycle impact reduction analysis of UPS's Newark Air Gateway facility using the Athena Impact Estimator for Buildings tool to demonstrate the long-term environmental benefits of RS&H's design relative to a standard design as part of LEED v4 certification.

BENJAMIN J. MOORE

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- *Fort Lauderdale International Airport Terminal 2 Commissioning—Commissioning Agent.* Conducting commissioning of mechanical, plumbing and lighting systems of the Terminal 2 expansion as part of LEED 2009 certification.
- *Master Plan Update, El Paso International Airport—Sustainability Planner.* Provided quality assurance and control review of a gap analysis of the sustainability features of the El Paso International Airport. The analysis included characterizing existing sustainability activities at the airport, identifying the sustainability features of capital improvement projects and providing recommendations for sustainability criteria for evaluating future projects and initiatives.
- *Airport Sustainability Master Plan, Newport News / Williamsburg International Airport—Sustainability Planner.* Sustainability principles were incorporated into the airport's Master Plan update process and its focus on land development, in particular non-aeronautical land development. Non-aviation land parcels were identified and developed into compatible land uses that will bring additional revenue..

References

- Justin Smith, Project Director – Airport Architect, Tampa International Airport, 813-676-4215, jwsmith@tampaaairport.com
- Mauricio Rodriguez, Architect, Miami Dade Aviation Department, 305-869-5530, maurodriguez@miami-airport.com
- Todd Cavender, Environment & Sustainability Director, Indianapolis International Airport, 317-487-5070, tcavender@ind.com

Education

- Master of Environmental Management, Nicholas School of the Environment at Duke University, 2007
- Certificate in Energy and Environment, Nicholas School of the Environment at Duke University, 2007
- Bachelor of Arts, Haverford College, 2001

Professional Credentials

- Certified Planner, American Institute of Certified Planners, 2013
- LEED® Accredited Professional Operations and Maintenance, Green Building Certification Institute (No. 10541149-AP-O+M), 2010
- Guiding Principles Certification Professional, Green Building Initiative, 2015

Publications

- Fueling Good: Planning, Design and Program Management for Alternative Fuels. (Accepted for publication in *Strategic Planning for Energy and the Environment*).
- Miami Dade County Moving Forward, Sustainable Buildings Program. (2014). *Strategic Planning for Energy and the Environment*, 33 (3), pp. 48-60.
- Policy to Process: Miami-Dade's Sustainable Buildings Program. (2013) *Proceedings of the World Energy Engineering Conference*, Chapter 138.
- Thompson, W. and Moore, B. (2011). Re/Retro-commissioning: The Best-kept Secret You Can't Afford Not to Know. *Strategic Planning for Energy and the Environment*, 31 (2), pp. 49-68.
- Contributing Author. Nicholas Institute for Environmental Policy Solutions. (2007). *Convenient Guide to Climate Change Policy and Technology*. Durham, NC: Duke University.

RIKKI A. VELA, ENV SP

SUSTAINABILITY AND RESILIENCY CONSULTING

INTRODUCTION

Ms. Vela has a broad experience in airport planning and environmental stewardship at RS&H. Within the Environmental Stewardship and Resiliency group, she has provided environmental / sustainability management, climate change mitigation / adaptation and master planning services to numerous airports nationwide. She has experience working with airports to determine entry points for integrating sustainability and resiliency into Airport's typical planning processes to create a culture of responsible and sustainable growth within a facility. Additionally, Ms. Vela utilizes her Envision Sustainability Professional (ENV SP) credential from the Institute for Sustainable Infrastructure's Envision Framework to approach sustainable infrastructure development at airports.

PROJECTS

Airport Master Plan Services; El Paso, TX, El Paso International Airport (KELP) –The Master Plan for El Paso International Airport is being updated to address some challenging issues while integrating immediate short-term beautification, regional transportation and land use plans with the long-term traditional planning practices. Ms. Vela served as a sustainability planner and applied the Envision Framework as a planning tool to create sustainability criteria for the selection of preferred alternatives. Using the preferred alternatives Envision analysis, Ms. Vela generated a roadmap for KELP for the potential pursuit of Envision Verified infrastructure.

Airport Master Plan Services; Roanoke, VA, Roanoke-Blacksburg Regional Airport (KROA) - The Update to Master Plan further provides Roanoke-Blacksburg Regional Airport and its Commission with a visionary document that not only allows for the orderly development of KROA's aeronautical and non-aeronautical facilities for the next 20 years but also does it in a financially responsible feasible manner and considers relevant environmental and sustainability issues, community input as well as regional socioeconomic and development issues that exist and are planned within the Roanoke Valley. Ms. Vela serves as the sustainability planning lead for this project. The sustainability aspects of the project include integration of sustainability initiatives included in the Virginia Airports Sustainability Management Plan for commercial airports into the master planning process.

Airport Master Plan Services; Cleveland, OH, Cleveland Hopkins International Airport (KCLE) - The Cleveland Hopkins International Airport Master Plan will provide guidelines for future airport development that satisfy future aviation demand in a financially feasible manner, while at the same time identifying and being responsive to the aviation-related environmental and socioeconomic conditions that may exist in the community. Ms. Vela serves as the sustainability lead for the KCLE Master Plan. Using the Cleveland Action Plan and 2013 Sustainable Cleveland Municipal Action Plan that contained sustainable goals and initiatives, recommendations and performance indicators will be created to ensure the Airport's sustainability goals align with the Municipality's. These recommendations are used in the selection of preferred alternatives.

Tampa MP Envision Assistance; Tampa, FL, - . This project included an assessment of Tampa International Airport's recently completed Master Plan Phase 1 projects to determine if the Envision rating system was applicable to the projects, what the approximate cost would be to obtain verification, and if the Airport had a desire to pursue verification. The assessment resulted in a

follow-on project to assist the Airport with obtaining verification. Ms. Vela serves as the Lead Envision Sustainability Professional for the Envision Verification of the Master Plan projects.

Tampa International Airport Sustainability Management Plan, Phase 1 (KTPA) - This project included updating the Airport's Sustainability Management Plan and associated tools that were developed in the 2014 Sustainable Management Plan. In the first phase of effort, Ms. Vela served as a sustainability planner and conducted a baseline assessment of the airport sustainability program performance; benchmarked performance against peer airports and key stakeholders; surveyed and interviewed airport staff; evaluated program goals and metrics; and developed an updated vision and goals for the Airport's new program.

Tampa International Airport Resilience Assessment (KTPA), - This project included assessing the resilience of Tampa International Airport's assets and operations to climate stressors, including flooding, heat, wind, and rain exacerbated by climate change. Additionally, RS&H downscaled climate data to the Tampa Bay region to identify stressors and thresholds. Likelihood and criticality of potential impacts were assessed to estimate risk and consider adaptive capacity. Using the identified vulnerabilities, RS&H developed a preliminary action plan for resiliency. Ms. Vela served as a resiliency planner for this project.

Indianapolis International Airport Preliminary Sustainability Plan - . Ms. Vela served as a sustainability planner and assisted with the preparation of a baseline assessment of the airport's sustainability performance in nine sectors and benchmarked performance against 44 airport, FAA's six elements of sustainable management plans, and the airports key stakeholders. Ms. Vela and the project team oversaw the work of consultants evaluating airport policies and procedures for green building, waste management and renewable energy. Finally, RS&H developed a framework for development of a comprehensive sustainability plan.

CREDENTIALS

Total Years of Experience: 2; With RS&H: 2

Bachelor of Science, Environmental Studies; Texas A&M University

Institute for Sustainable Infrastructure Envision Sustainability Professional (ENV SP)

Airports Council International (ACI)

Women in Aviation International

Women's Transportation Seminar (WTS)

Mr. D. Ben Chandler, Jr., PG. LEED AP®

Sustainability and Energy Consulting

Mr. Chandler is a Senior Environmental Specialist for the Jacksonville based Sustainable Solutions Service Group. Serving as Senior Project Manager, his responsibilities include technical and quality assurance expertise for a wide assortment of sustainability and traditional environmental compliance/assessment projects. Mr. Chandler has 30 years of environmental consulting experience supporting the needs of a variety of Government entities, including Airport Authorities, and private businesses. In Florida, Mr. Chandler has successfully managed environmental projects at FLL, TPA, PIE, PCM, Patrick AFB, DAB, GNV, JAX, and PNS. His experience includes Phase I and Phase II Environmental Site Assessments, Spill Prevention, Control, and Countermeasure Plans, Underground Storage Tank Investigation and Removal, Rainwater Harvesting Investigation, Waste Characterization Studies, Environmental Compliance, and Environmental Design. Mr. Chandler received his Bachelor of Science in Geology from the University of Southern Illinois. He is a licensed Professional Geologist in the States of Florida, Alabama, Texas, and Indiana and has achieved the GBCI accredited professional status for LEED.

Professional Credentials

Bachelor of Science in Geological Sciences, Southern Illinois University, 1987

Licensed Professional Geologist: Indiana (No. 1501), 1994; Florida (No. 2246), 2002; Texas (No. 10010), 2004; Alabama (No. 1171), 2006

LEED Accredited Professional, O+M, 2006

RS&H Sustainability Task Force

Leaking Petroleum Storage Tank Project Manager, Texas Commission on Environmental Quality (No. PM0000294), 2006

Texas Precertification Categories (ESN 13349): 2.13.1

40-Hour Hazardous Waste Site Training Course, OSHA 29 CFR 1910.120(e)(3), 2001

Annual Hazardous Waste Site Training Refresher, OSHA 29 CFR 1910.120(e)(3), 2007

RAB/QSA ISO 14001 Lead Auditor Training (Certificate No. 1092), 2005

Project Manager Training, PSMJ Resources, Inc., 2005

Incident Commander Training

Business Contingency Planner Training

MQAS QS/9000 Training

EEMS ISO/14001 Training and Implementation

Jeffrey R. Wood, CSDP

Senior Environmental Analyst

GENERAL SUMMARY

Mr. Wood has a diverse environmental background, which includes managing numerous Categorical Exclusion Documents, Environmental Assessments, and Environmental Impact Statements for a variety of projects. With 30 years of experience, Mr. Wood has gained expert knowledge of FAA requirements and compliance with the National Environmental Policy Act (NEPA). His background includes extensive experience performing wetland delineations and mitigation designs, natural resources inventories, threatened and endangered species habitat surveys, traffic and airport noise studies, air quality studies, and wetland permitting. He is also very familiar with the Airport Improvement Program (AIP) and serves as an FAA liaison. In addition, Jeff is adept at integrating operational needs with AIP requirements to develop Airport Capital Improvement Programs, and he has a track record of success obtaining funding for controversial projects. Mr. Wood is a frequent presenter on airport sustainability issues, including recent presentations to the Finger Lakes Chapter of the U.S. Green Building Council and the New York Aviation Management Association. He is also certified as a Sustainable Design Professional through the Association of Energy Engineers.

REPRESENTATIVE EXPERIENCE

Broward County (BCAD) - Purpose/Need Documentation for Landside Projects at Fort Lauderdale Hollywood International Airport (FLL), Fort Lauderdale, FL – QA/QC Coordinator responsible for document review. This project included aviation planning analyses essential to the development of required purpose and need projections, calculations, modeling, and documentation to support the alternative refinement of airport landside projects and initiatives including; the Automated People Mover (APM), Parking Garage Demolition and Replacement and the Terminal Loop Roadway and Curb front Improvements. The purpose and need documentation provided pertinent background information regarding need and justification for the recommended airport improvements as presented in the most recent Master Plan Report, ALP drawing set, and other information provided by BCAD. Existing and projected aviation activity was discussed as it relates to the recommended improvements. Financing, implementation, and phasing of the proposed improvements were also discussed. *Project Owner: Broward County Aviation Department*

BCAD FLL West Side Dry Retention Pond CATEX – Ft. Lauderdale, FL – QA/QC Coordinator responsible for document review. This subtask includes the drafting of a Documented CATEX for the West Side Dry Retention Pond. *Project Owner: Broward County Aviation Department*

BCAD FLL Review of NEPA Requirements, Ft. Lauderdale, FL - QA/QC Coordinator responsible for document review. This subtask reviewed the potential National Environmental Policy Act (NEPA) requirements for the projects identified in the BCAD Capital Improvement Plan (CIP) for Fiscal Year (FY) 2019. Each project in the CIP for FY 2019 was reviewed to determine if the project would constitute a Federal Action, as defined in FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Action*. For those projects determined to be a Federal Action, FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* was reviewed to determine the level of NEPA review required. An internal memorandum, a memorandum for the FAA, and a Project Report were drafted for this subtask. *Project Owner: Broward County Aviation Department*

BCAD FLL North Airfield Pavement Rehabilitation CATEX, Ft. Lauderdale, FL - QA/QC Coordinator responsible for document review. This task included the drafting of a Documented CATEX for the Rehabilitation of North Airfield Pavements and Engineered Materials Arresting System (EMAS) project. The draft documents were reviewed by the primary Architect and BCAD and the final, executed draft of the Documented CATEX was submitted to the FAA by BCAD. *Project Owner: Broward County Aviation Department*

Airport Environmental Assessment, Lebanon Municipal Airport, West Lebanon, NH - Senior Environmental Analyst responsible for developing the Purpose and Need chapter of the Environmental Assessment. This project involves proposed runway safety area improvements, runway and taxiway extensions and obstruction clearing. MJ is preparing an Environmental Assessment to meet federal NEPA requirements. MJ identified resources through field work and GIS mapping; screening preliminary alternatives; assessing impacts of alternatives; coordinating with agencies and the public and preparing the EA document. *Project Owner: City of Lebanon*

Runway 6-24 Extension Environmental Assessment, Elmira Corning Regional Airport, Horseheads, NY - Project Manager responsible for project coordination, budget and schedule adherence, and review of environmental documentation. This project involves preparation of an Environmental Assessment (EA) for a 400' extension of Runway 6-24 in a highly constrained area. To accomplish this extension, three build alternatives were evaluated, involving: (1) provision of a standard Runway Safety Area (RSA) through culverting and realignment of a nearby road; (2) provision of a standard RSA through realignment of a nearby creek and realignment of a nearby road; and (3) provision of an equivalent level of safety as the standard RSA accomplished through a

more costly Engineered Materials Arresting System (EMAS). MJ facilitated extensive dialogue among project stakeholders, in which the following key concerns were expressed: possible floodplain impacts, long term stabilization of the nearby creek, impacts to domestic groundwater wells and impacts to aquatic organisms. After careful consideration of all possible impacts, public preference, and project costs, the EMAS was chosen as the preferred alternative; a successful compromise that met the airport's need for additional runway length, while addressing the concerns of the public and regulatory community. *Project Owner: Chemung County*

Runway 5-23 Rehabilitation Feasibility Study, Morristown Municipal Airport, Morristown, NJ - Facility Manager and Environmental Task Leader responsible for coordination of all environmental documentation and permitting. This multi-phased project involves the development of a feasibility study to establish and assess a comprehensive, multi-year, phased development plan for the overall rehabilitation of Runway 5-23. MJ was responsible for the Runway Safety Area, Drainage, NEPA and permitting components of the project. The proposed safety area improvements include installation of an Engineered Materials Arresting System (EMAS) on the Runway 5 end and grading and drainage improvements on the Runway 23 end. The narrative report included an analysis of design alternatives, cost estimates, and a construction phasing plan. Environmental constraints were also evaluated. *Project Owner: Town of Morristown*

Environmental Assessment & Land Acquisition Services, Finger Lakes Regional Airport, Seneca Falls, NY - Project Manager responsible for project staffing and quality review. This project involved the preparation of an environmental assessment in relation to land acquisition, drainage improvements, terminal area expansion and airspace protection at the Airport. The EA evaluated the potential impact and mitigation measures required to complete Phase I of the projects outlined in the Master Plan Update. *Project Owner: Seneca County*

NFTA - NFIA Obstruction Removal Environmental Assessment, Niagara Falls International Airport, Niagara Falls, NY – Senior Environmental Analyst responsible for project oversight and client coordination. This project includes the development of a Short Environmental Assessment (EA) under the National Environmental Policy Act (NEPA) and a Full Environmental Assessment Form (FEAF) under the State Environmental Quality Review Act (SEQRA) for the removal of obstructions to Runway 6-24 and 10L-28R at the Niagara Falls International Airport. The Short EA reviews the removal of obstructions to the 14 CFR part 77 (Safe, Efficient Use, and Preservation of Navigable Airspace) Surfaces of all ends, as well as the 20:1, 34:1, 30:1 and 40:1 surfaces as identified in Advisory Circular 150/5300-13A (Airport Design). To assist with the development of the necessary environmental documentation, this project also included the development of conceptual (30%) design plans for appropriate mitigation and/or removal of identified obstructions within Airport-owned property. *Project Owner: Niagara Frontier Transportation Authority*

EDUCATION

BS - SUNY College of Environmental Science and Forestry / Environmental Studies / 1988

Certificate - University of Central Florida / FHWA Traffic Noise Modeling / 1999

Certificate - ACEC New York / Leadership Institute / 2010

Certificate - Association of Energy Engineers / Certified Sustainable Development Professional / 2014

John L. Mafera, Jr.

Senior Airport Planner

GENERAL SUMMARY

Mr. Mafera is a highly motivated airport consulting professional with 22 years of unique airport planning, design, project and program management and business development experience. He has had direct experience across a broad spectrum of client types and airport issues. Mr. Mafera has served as the business unit leader for a national aviation planning group, aviation services group leader for the Southeast U.S. and client/project manager for a variety of multi-disciplinary airport and municipal contracts at both large general aviation and commercial service airports. Mr. Mafera has specific project experience including strategic airport development plans, airport business and commercial development plans, airport master plans, airport land use planning, eALP and ALP updates, noise compatibility studies, airport site selection and feasibility studies, heliport design, environmental assessments, EMAS and runway safety area studies, aviation forecasting, airport capacity studies and airspace and obstruction analyses.

REPRESENTATIVE EXPERIENCE

Broward County (BCAD) – NEPA Purpose/Need Documentation for Landside Projects at Fort Lauderdale Hollywood International Airport (FLL), Fort Lauderdale, FL – Project Manager responsible for coordination of all tasks. This project included aviation planning analyses essential to the development of required purpose and need projections, calculations, modeling, and documentation to support the alternative refinement of airport landside projects and initiatives including; the Automated People Mover (APM), Parking Garage Demolition and Replacement and the Terminal Loop Roadway and Curb front Improvements. The purpose and need documentation provided pertinent background information regarding need and justification for the recommended airport improvements as presented in the most recent Master Plan Report, ALP drawing set, and other information provided by BCAD. Existing and projected aviation activity was discussed as it relates to the recommended improvements. Financing, implementation, and phasing of the proposed improvements were also discussed. *Project Owner: Broward County Aviation Department*

BCAD FLL West Side Dry Retention Pond NEPA CATEX – Ft. Lauderdale, FL – Project Manager responsible for coordination of all tasks. This task assignment includes the drafting of a Documented CATEX for the West Side Dry Retention Pond. *Project Owner: Broward County Aviation Department*

BCAD Review of FLL CIP NEPA Requirements, Ft. Lauderdale, FL - Project Manager responsible for coordination of all tasks. This subtask reviewed the potential National Environmental Policy Act (NEPA) requirements for the projects identified in the BCAD Capital Improvement Plan (CIP) for Fiscal Year (FY) 2019. Each project in the CIP for FY 2019 was reviewed to determine if the project would constitute a Federal Action, as defined in FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Action*. For those projects determined to be a Federal Action, FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* was reviewed to determine the level of NEPA review required. An internal memorandum, a memorandum for the FAA, and a Project Report were drafted for this subtask. *Project Owner: Broward County Aviation Department*

BCAD FLL North Airfield Pavement Rehabilitation NEPA CATEX, Ft. Lauderdale, FL - Project Manager responsible for coordination of all tasks. This task included the drafting of a Documented CATEX for the Rehabilitation of North Airfield Pavements and Engineered Materials Arresting System (EMAS) project. The draft documents were reviewed by the primary Architect and BCAD and the final, executed draft of the Documented CATEX was submitted to the FAA by BCAD. *Project Owner: Broward County Aviation Department*

BCAD FLL Terminal Connectors Bomb Blast Analysis, Fort Lauderdale, FL - Project Manager responsible for project coordination. This project was a sensitive security information project that included the completion of a blast analysis for specific airport facilities that were under design. The bomb blast analysis was completed using the US Army Corps of Engineers modeling software and guidance provided in DHS, FEMA and FAA reference manuals and reports. *Project Owner: Broward County Aviation Department*

Monroe County General Consultant Services, Key West International & Florida Keys Marathon Airports, FL – Program/Project Manager responsible for numerous task assignments under this term agreement. Specifically, MJ has provided planning, design, permitting and construction services for: a four-bay rental car wash facility at Florida Keys Marathon Airport; and a demolition of the former Hertz building; expansion of the customs and border protection (CBP) facility; a new two-lane FBO access road; and an elevated parking deck with covered airport maintenance facility area at Key West International Airport. MJ also performed a hazardous materials survey in support of the former Hertz building demolition at Key West International. *Project Owner: Monroe County*

Auto Parking Expansion Project Definition and Programming, Greenville-Spartanburg International Airport, Greer, SC - Project Manager responsible for development of a project definition and programming (PDP) report. This project involves development of a project definition and programming (PDP) report, including detailed planning and preliminary engineering drawings, that outline proposed parking development areas, project budgets, and construction schedules to address parking demand through 2025 and 2030 for five (5) parking types and areas. This information will be based on a detailed analysis including: recent changes in parking demand and passenger traffic, preliminary site investigations, revised site layouts, preliminary site grading and construction cost estimates. The PDP will establish forecast demand levels and identify proposed parking areas for public economy parking, employee parking, valet parking and cell phone waiting lot parking. *Project Owner: Greenville-Spartanburg Airport Commission*

Dynamic Master Plan & e-ALP Update, Greenville-Spartanburg International Airport, Greer, SC - Project Manager responsible for overall coordination of this dynamic master plan. This Plan includes scenario-based planning analyses and an innovative dynamic planning approach that provides quick feedback regarding possible scenarios and resultant impacts. GSP staff are able to analyze new opportunities and planning challenges proactively before they occur rather than undergoing time consuming and costly planning efforts in a reactionary manner. The Plan focuses primarily on landside access, circulation and auto parking facilities, air cargo facility development and operations, enhanced land development and obstruction planning and consolidation of previous planning efforts into a single electronic source for planning and GIS information. The plan incorporates adjustable forecasts, scenario-based planning, planning activity levels with specific trigger points and enhanced land development and highest or best use principles. *Project Owner: Greenville-Spartanburg Airport Commission*

Dynamic Sustainable Master Plan Update, Erie International Airport, Tom Ridge Field, Erie, PA - Senior Airport Planner responsible for land use and land development planning and QA/QC. This project involved the development of a Sustainable Master Plan Update (MPU). The airport recently extended its main runway (Runway 6-24) and has multiple projects scheduled for FAA geometry mitigation. The MPU considers increased airline and ULCC activity, cargo activity, geometry mitigation, and obstruction evaluation. A key requirement for the MPU was the development of the Airport Dynamic Analysis Tool (DAT). The DAT computer-based model links the aviation forecasts, facility requirements, the Airport Layout Plan (ALP) and financial models, allowing the airport to rapidly evaluate scenarios (e.g. new air carrier service, air cargo services, enhanced general aviation growth) to identify key facility requirements and financial implications of these various scenarios. Flexibility in analyzing future needs was critical due to the numerous opportunities that the airport is considering along with the high costs associated with needed maintenance at the airport. Understanding the financial capacity of the airport to take on new development projects, while ensuring that needed airfield projects are completed was an important part of the plan. The MPU also considers the airport's role in regional economic development initiatives and environmental sustainability. Coordination with both local and regional stakeholders is important to determine how the airport would deliver value towards initiatives planned or already underway. *Project Owner: Erie Regional Airport Authority*

Dynamic Master Plan and Airport Layout Plan Update, Wilkes-Barre/Scranton International Airport, Avoca, PA - Project Manager responsible for agency and project coordination as well as landside and land use/development planning. This project involves the development of a dynamic Airport Master Plan that utilizes an innovative approach to airport planning and provides for additional flexibility in airport planning management. The Dynamic Master Plan focuses primarily on landside access, parking and terminal issues, airfield geometry and enhanced commercial land development. The plan incorporates adjustable forecasts, scenario-based planning, planning activity levels with specific trigger points and an enhanced land development and marketing analysis based on highest or best use principles. The Dynamic Master Plan combines all of the data collected with updated aerial mapping to produce an existing conditions Airport Layout Plan (ALP) in keeping with FAA Airports GIS standards. The final product links forecast and market driven development variables to a dynamic and interactive financial plan ALP, making the final dynamic deliverables infinitely more useful to both the FAA and the airport. The land development tool enables the Airport to review and assess potential development opportunities to select for the highest and best use. *Project Owner: Wilkes-Barre/Scranton International Airport*

Passenger Facility Charge (PFC) Application Support, Greenville-Spartanburg International Airport, Greer, SC - Project Manager MJ is responsible for developing the first ever application to collect and sue Passenger Facility Charge (PFC) funds for the Greenville-Spartanburg International Airport (GSP). This project will provide support for the PFC application effort to include; completion of project descriptions, filing of necessary airspace review forms and preparation submittal and coordination of required National Environmental Policy Act (NEPA) documentation, to include Categorical Exclusion (CATEX) forms for each applicable project in accordance with FAA Airports Division Standard Operation Procedure 5.1. *Project Owner: Greenville-Spartanburg Airport Commission*

EDUCATION

BS - Florida Institute of Technology / Aviation Management / 1998

David R. Rosa

Senior Environmental Scientist / Project Manager

GENERAL SUMMARY

Mr. Rosa has over 20 years of experience in the environmental field including preparation of National Environmental Policy Act (NEPA) documents, compliance, coordination, permitting, studies, compensatory mitigation, monitoring and environmental management. His project experience includes work in the Southeastern U.S., New York, Puerto Rico, the Caribbean and the U.S. Virgin Islands. He has served as a project manager, environmental compliance officer and permit coordinator for different types of projects requiring the ability to effectively handle multiple tasks in a fast-paced environment. In those positions, he gained valuable experience in regulatory compliance including preparation of alternative analysis, NEPA documents, agency coordination plans, environmental permit applications, technical reports, monitoring plans and other environmental documentation. In terms of monitoring plans, he has worked on Stormwater Pollution Protection Plans (SWPPPs) and Spill Protection Control and Countermeasure Plans (SPCCs) for airport and industrial facilities, Environmental Protection Plans (EPPs) for U.S. Army Corps of Engineers (USACE) projects, and other plans associated with different regulations, codes and standards. Overall, he has experience in consulting services, day-to-day duties, project management, scheduling, technical proposals preparation, business development, budget control, agency coordination (federal, state and municipal), technical reports, and providing advice and guidance as a member of interdisciplinary teams.

REPRESENTATIVE EXPERIENCE

NEPA Purpose and Need Documentation for Landside Projects, Fort Lauderdale-Hollywood International Airport, Fort Lauderdale, FL – Project Manager responsible for overall project coordination. This project included aviation planning analyses essential to the development of required purpose and need projections, calculations, modeling, and documentation to support the alternative refinement of airport landside projects and initiatives including; the Automated People Mover (APM), Parking Garage Demolition and Replacement and the Terminal Loop Roadway and Curbsfront Improvements. The purpose and need documentation provided pertinent background information regarding need and justification for the recommended airport improvements as presented in the most recent Master Plan Report, ALP drawing set, and other information provided by BCAD. Existing and projected aviation activity was discussed as it relates to the recommended improvements. Financing, implementation, and phasing of the proposed improvements were also discussed. *Project Owner: Broward County Aviation Department*

Runway Expansion to the Fort Lauderdale – Hollywood International Airport, FL - This project involved the design and construction via Design-Build delivery method of the structures for Runway 9R-27L and the parallel Taxiway over US-1, FEC RR and the Airport's East Perimeter Road. Project Manager/Sr. Environmental Scientist responsible for the environmental services and completing all work products. Specific responsibilities included preparation of permit applications/modification for SFWMD, USACE permits, Broward County ERL / SWM, Broward County Tree Licenses, Dewatering permits, NPDES-Generic Permits, among others. Duties also include field studies such as delineation of additional wetland areas, contamination screenings, tree surveys. Provided environmental support and SWPPP compliance advice to the design-build team during construction operations. *Project Owner: Broward County Aviation Department*

Airport Access Road Design-Phase I, Key West International Airport, Key West, FL – Senior Environmental Analyst responsible for environmental permitting. The proposed project involves the conceptual design of a two-lane landside access road that provides connectivity from S. Roosevelt Boulevard to EYW's fuel farm, fixed base operator (FBO), overflow parking, commercial transportation and airport support areas. The proposed access road will separate airport support services from airport passenger traffic on Faraldo Circle, reducing traffic congestion in the terminal area and also eliminating fuel truck and other large vehicle traffic from the ingress/egress passenger terminal area, providing an added level of safety as well as reconfiguring impacted parking and staging areas to provide enhanced customer parking and hotel shuttle and Transportation Network Company (TNC) staging away from the congested terminal curb. *Project Owner: Monroe County*

PFC Application Support, Greenville-Spartanburg Airport, Greer, SC – Senior Environmental Analyst responsible for preparation of Categorical Exclusion documentation. MJ is responsible for developing the first ever application to collect and use Passenger Facility Charge (PFC) funds for the Airport. This project will provide support for the PFC application effort, including: completion of project descriptions, filing of necessary airspace review forms and preparation submittal and coordination of required National Environmental Policy Act (NEPA) documentation, to include Categorical Exclusion (CATEX) forms for each applicable project in accordance with FAA Airports Division Standard Operation Procedure 5.1. *Project Owner: Greenville-Spartanburg Airport Commission*

Environmental Compliance Support Services, Palm Beach, FL - Environmental Manager responsible for completing the environmental inspections within airports facility including fuel farms, report findings and all work products. Responsibilities included updates to Stormwater Pollution Prevention Plans (SWPPP) associated to MSGP for all four (4) Palm Beach airports, presentation preparation and annual trainings as per MSGP requirements. This project involved environmental inspections at Palm Beach International Airport, F45 Airport, Lantana Airport, and Pahokee Airport, managed by Palm Beach Department of Airports (PBDOA). The purposed of the environmental compliance support services was to help PBDOA maintain compliance with Multi Sector General Permit (MSGP) under the US Environmental Protection Agency (EPA) / FL Department of Airport. *Project Owner: Palm Beach Department of Airports*

Burrowing Owl Survey, Palm Beach International Airport (PBI) Runway 10L-28R Rehabilitation Project, Palm Beach, FL - Sr. Environmental Scientist responsible for conducting a survey for Florida Burrowing Owl (*Athene cunicularia*) burrows and FFWCC permit for burrow removal. The survey was conducted at specific areas along Runway 10L-28R within the PBI. *Project Owner: Palm Beach Department of Airports*

Airport Wildlife Assessment Study, Various Airports, Palm Beach, FL – Sr. Environmental Scientist responsible for the field investigation and methodology implementation at the Lantana and F45 airports. The study involved the assessment of potential wildlife attractant on or near airports as per Advisory Circular (AC) 150/5200 33A and FAA requirements. *Project Owner: Palm Beach Department of Airports*

Turf Runway Improvements - Palm Beach F45 Airports, Palm Beach, FL – Project Manager/Sr. Environmental Scientist responsible for the environmental surveys and assessment for runway expansion. Also provide advice to the designer with the permitting and regulatory process. This project involves design of the Turf Runway improvements and extension. *Project Owner: Palm Beach Department of Airports*

Lantana Airport Stormwater Master Plan, Palm Beach, FL - Sr. Environmental Scientist responsible for conducting wetland delineation and determining potential impacts within wetland habitats. Assisted in the preparation of the permit application and coordination of environmental related work. The project involves preparing a Conceptual Stormwater Management Master Plan and SFWMD Conceptual Environmental Resource Permit (ERP) application for the LNA Airport. *Project Owner: Palm Beach Department of Airports*

Luis Muñoz Marín (LMM) International Airport Capital Improvement, Puerto Rico - Environmental Discipline Manager responsible for setting up the initial permitting strategy in order to obtain a categorical exclusion and construction permit for proposed improvements at LMM. The permitting strategy expedited the completion of the permit phase earlier than expected and an EA was not required. *Project Owner: Puerto Rico Ports Authority*

Luis Muñoz Marín (LMM) International Airport - Environmental Compliance Support Services, Puerto Rico - Environmental Manager responsible for completing environmental inspections within the airport's facilities (including fuel farms) and developing report findings and all work products. Responsibilities included preparation of master Spill Prevention Control and Countermeasure Plan (SPCC), updates to Stormwater Pollution Prevention Plans (SWPPP), develop presentations and provide annual trainings as per MSGP requirements. Support services were provided to assist Aerostar in obtaining coverage with Multi Sector General Permit (MSGP) under the US Environmental Protection Agency (EPA) / FL Department of Airport. *Project Owner: Aerostar*

EDUCATION

BS – University of Sagrado Corazon / Natural Sciences / 2000

CERTIFICATIONS

FDEP - FL Stormwater Erosion and Sedimentation Control Inspector (#19226)

ASHTON - Biodiversity Gopher Tortoise Survey

Airport Environmental Management / Airports Council International

FL Master Naturalist / University of Florida

USACE and FL Statewide Wetland Delineation

Thomas C. Wirickx, CSE, PWS, QAWB

Senior Environmental Analyst

GENERAL SUMMARY

Mr. Wirickx has 20 years of experience in a wide range of environmental work, including wildlife hazard assessment and management plans, environmental and ecological assessments, environmental impact statements, NEPA and SEQR compliance, wetland delineations, rare and endangered species surveys, and environmental permitting, as well as stream and wetland mitigation planning, design and monitoring. Mr. Wirickx is certified as a Professional Wetland Scientist by the Society of Wetland Professionals and is a Certified Senior Ecologist through the Ecological Society of America. ***In addition, he is one of only seven individuals across the Northeast (and 56 nationwide) currently recognized by the Federal Aviation Administration as a Qualified Airport Wildlife Biologist in accordance with 14 CFR 139.337 and AC No. 150/5200-36A.***

REPRESENTATIVE EXPERIENCE

Airport Access Road Design-Phase I, Key West International Airport, Key West, FL - Senior Environmental Analyst responsible for delineation of state and federally regulated wetlands, initial state and federally-listed threatened and endangered species screening, and identification of regulatory agency permitting requirements. The proposed project involves the conceptual design of a two-lane landside access road that provides connectivity from S. Roosevelt Boulevard to EYW's fuel farm, fixed base operator (FBO), overflow parking, commercial transportation and airport support areas. The proposed access road will separate airport support services from airport passenger traffic on Faraldo Circle, reducing traffic congestion in the terminal area and also eliminating fuel truck and other large vehicle traffic from the ingress/egress passenger terminal area, providing an added level of safety as well as reconfiguring impacted parking and staging areas to provide enhanced customer parking and hotel shuttle and Transportation Network Company (TNC) staging away from the congested terminal curb. *Project Owner: Monroe County*

Auto Parking Expansion Project Definition and Programming, Greenville-Spartanburg International Airport, Greer, SC - Senior Environmentalist responsible for preliminary ecological inventory, threatened and endangered species screening, and regulatory environmental review. This project involves development of a project definition and programming (PDP) report, including detained planning and preliminary engineering drawings, that outline proposed parking development areas, project budgets, and construction schedules to address parking demand through 2025 and 2030 for five (5) parking types and areas. This information will be based on a detailed analysis including: recent changes in parking demand and passenger traffic, preliminary site investigations, revised site layouts, preliminary site grading and construction cost estimates. The PDP will establish forecast demand levels and identify proposed parking areas for public economy parking, employee parking, valet parking and cell phone waiting lot parking. *Project Owner: Greenville-Spartanburg Airport Commission*

Dynamic Master Plan & e-ALP Update, Greenville-Spartanburg International Airport, Greer, SC - Senior Environmental Analyst responsible for hazardous waste screening, ecological inventory, threatened and endangered species screenings, regulatory environmental review, and report preparation. This Plan includes scenario-based planning analyses and an innovative dynamic planning approach that provides quick feedback regarding possible scenarios and resultant impacts. GSP staff are able to analyze new opportunities and planning challenges proactively before they occur rather than undergoing time consuming and costly planning efforts in a reactionary manner. The Plan focuses primarily on landside access, circulation and auto parking facilities, air cargo facility development and operations, enhanced land development and obstruction planning and consolidation of previous planning efforts into a single electronic source for planning and GIS information. The plan incorporates adjustable forecasts, scenario-based planning, planning activity levels with specific trigger points and enhanced land development and highest or best use principles. *Project Owner: Greenville-Spartanburg Airport Commission*

Dynamic Master Plan, Wilmington Airport, New Castle, DE - Senior Environmental Analyst responsible for hazardous waste screening, ecological inventory, stream and wetland delineations, threatened and endangered species screenings, regulatory environmental review, and report preparation. With this complex and highly-dynamic airport including 4 FBOs, an Air National Guard base, and intermittent periods of commercial service, this plan requires flexibility to take advantage of yet unknown opportunities or changes in market conditions. The plan considers the implications of introduction and expansion of low-cost airline service, which continues to exhibit highly variable growth. An important element of the plan is defining development nodes and evaluating how the growth of those nodes affects other areas of the airport and the financial outlook. In this regard, growth in the passenger terminal area is being evaluated against the GA development opportunities for additional FBOs and large corporate aviation tenants. Airside alternatives that consider the FAA's new airfield geometry requirements add a layer of complexity for the 3 runways at the airport. The dynamic scenario-based interface, combined with the comprehensive AGIS survey, provides a management tool for airport staff, creating flexibility to account for changes within the industry and the general economy. *Project Owner: Delaware River and Bay Authority*

Master Plan Update, Wildlife Hazard Evaluation & Pavement Management Plan, Cortland County Airport, Cortland, NY - Environmental Analyst responsible for site visits and documentation of wildlife hazard site visit, as well as preparation of the Environmental Overview chapter of the Master Plan Report. This Master Plan update included reviewing the airfield for updates to FAA standards noted in AC 150/5300-13A, Airport Design. In addition, the users, aircraft characteristics, and role of the airport in the region's economy had changed since the prior Master Plan, including the presence of a based jet at the airfield with limited capabilities due to a runway length of 3,400 feet. An assessment of numerous alternatives related to an extension of Runway 6-24 was conducted. Two additional studies, a pavement Management Study and a Wildlife Hazard evaluation, were also completed to complement the findings of the Master Plan Update. *Project Owner: Cortland County*

Runway 13-31 Obstruction Removal Environmental Assessment, Morristown Municipal Airport, Morristown, NJ - Senior Environmentalist responsible for ecological inventory, stream and wetland delineations, threatened and endangered species screenings, regulatory environmental review, regulatory agency consultation and coordination, and report preparation. This project involved preparation of an Environmental Assessment for removal of off-airport tree obstructions in the approach to RW 13 at the Airport. The scope of work included development of a web-based obstruction management and visualization tool utilized to facilitate dialogue with stakeholders. The tool also houses a database of known obstructions and allows the owner to track and manage the status of obstruction removal efforts. *Project Owner: Town of Morristown*

Dynamic Master Plan and Airport Layout Plan Update, Wilkes-Barre/Scranton International Airport, Avoca, PA - Senior Environmental Analyst responsible for hazardous waste screening, ecological inventory, stream and wetland delineations, threatened and endangered species screenings, regulatory review and report preparation. This project involves the development of a dynamic Airport Master Plan that utilizes an innovative approach to airport planning and provides for additional flexibility in airport planning management. The Dynamic Master Plan focuses primarily on landside access, parking and terminal issues, airfield geometry and enhanced commercial land development. The plan incorporates adjustable forecasts, scenario-based planning, planning activity levels with specific trigger points and an enhanced land development and marketing analysis based on highest or best use principles. *Project Owner: Wilkes-Barre/Scranton International Airport*

EDUCATION

BS - SUNY College of Environmental Science and Forestry / Environmental and Forest Biology / 1998

AAS - SUNY Morrisville College of Agriculture and Technology / Natural Resources Conservation / 1996

Certifications:

Federal Aviation Administration / Qualified Airport Wildlife Biologist / 2009

Society of Wetland Scientists / Professional Wetland Scientist (2501) / 2019

Ecological Society of America / Certified Senior Ecologist / 2016

Georgia Department of Transportation (eLearning Course) / Environmental Procedures Manual - Ecology / 2018

Churchill Environmental / OSHA 8 Hour Hazardous Waste Operations & Emergency Response / 2016

Bird Strike Committee USA / Identifying & Reducing Hazards to Aviation by Wildlife / 2018

Coursework & Specialized Training:

Embry-Riddle Aeronautical University / Airport Wildlife Hazard Management Course / 2009

New York State Wetlands Forum / USACE NE/NC Regional Supplement Wetland Delineation Training / 2010

U.S. Fish and Wildlife Services / Developing Biological Assessments / 2007

American Association of Airport Executives / Airport Wildlife Trainer's Course / 2010

Alexander L. Michaels

Aviation Planner

GENERAL SUMMARY

Mr. Michaels is a skilled aviation planner with 3 years of experience in airport and environmental planning at a wide range of airports from general aviation to large hub. With a background in aviation management, airport design, and aviation environmental science, Mr. Michaels provides technical expertise on master plans, environmental assessments and system planning projects. He is well-versed in multiple planning platforms including AutoCAD and the Aviation Environmental Design Tool (AEDT) and specializes in aviation sustainability integration. A published researcher, Mr. Michaels is able to effectively analyze data, regulations, and prior planning material to support runway safety area determination studies, airport master plan updates, noise compatibility studies, aviation forecasting, airspace obstruction analyses and eALPs.

REPRESENTATIVE EXPERIENCE

Broward County (BCAD) - Purpose/Need Documentation for Landside Projects at Fort Lauderdale Hollywood International Airport (FLL), Fort Lauderdale, FL – Lead Airport Planner responsible for task coordination with the client and team, data research and collection, technical analyses, report documentation and presentation of results to the client, team and agencies. This project included aviation planning analyses essential to the development of required purpose and need projections, calculations, modeling, and documentation to support the alternative refinement of airport landside projects and initiatives including; the Automated People Mover (APM), Parking Garage Demolition and Replacement and the Terminal Loop Roadway and Curbfront Improvements. The purpose and need documentation provided pertinent background information regarding need and justification for the recommended airport improvements as presented in the most recent Master Plan Report, ALP drawing set, and other information provided by BCAD. Existing and projected aviation activity was discussed as it relates to the recommended improvements. Financing, implementation, and phasing of the proposed improvements were also discussed. *Project Owner: Broward County Aviation Department*

BCAD FLL West Side Dry Retention Pond CATEX – Ft. Lauderdale, FL – Lead Airport Planner responsible for reviewing project documents and previous environmental reviews provided by another firm to complete an ARP SOP 510 Form and draft a supplementary memorandum to support its transmittal to the FAA. This subtask includes the drafting of a Documented CATEX for the West Side Dry Retention Pond. *Project Owner: Broward County Aviation Department*

BCAD FLL Review of NEPA Requirements, Ft. Lauderdale, FL - Lead Airport Planner responsible for drafting NEPA documents with feedback from the BCAD Aviation Planning Manager. This subtask reviewed the potential National Environmental Policy Act (NEPA) requirements for the projects identified in the BCAD Capital Improvement Plan (CIP) for Fiscal Year (FY) 2019. Each project in the CIP for FY 2019 was reviewed to determine if the project would constitute a Federal Action, as defined in FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Action*. For those projects determined to be a Federal Action, FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* was reviewed to determine the level of NEPA review required. An internal memorandum, a memorandum for the FAA, and a Project Report were drafted for this subtask. *Project Owner: Broward County Aviation Department*

BCAD FLL, North Airfield Pavement Rehabilitation CATEX, Ft. Lauderdale, FL - Lead Airport Planner responsible reviewing project documents and previous environmental reviews provided by BCAD to complete an ARP SOP 510 Form and draft a supplementary memorandum to support its transmittal to the FAA. This task included the drafting of a Documented CATEX for the Rehabilitation of North Airfield Pavements and Engineered Materials Arresting System (EMAS) project. The draft documents were reviewed by the primary Architect and BCAD and the final, executed draft of the Documented CATEX was submitted to the FAA by BCAD. *Project Owner: Broward County Aviation Department*

Dynamic Master Plan & e-ALP Update, Greenville-Spartanburg International Airport, Greer, SC - Airport Planner and AEDT technician responsible for technical deliverables including airport inventory, aviation forecasting, general aviation facility requirements and airport noise compatibility. This Plan includes scenario-based planning analyses and an innovative dynamic planning approach that provides quick feedback regarding possible scenarios and resultant impacts. GSP staff are able to analyze new opportunities and planning challenges proactively before they occur rather than undergoing time consuming and costly planning efforts in a reactionary manner. The Plan focuses primarily on landside access, circulation and auto parking facilities, air cargo facility development and operations, enhanced land development and obstruction planning and consolidation of previous planning efforts into a single electronic source for planning and GIS information. The plan incorporates adjustable forecasts, scenario-based planning, planning activity levels with specific trigger points and enhanced land development and highest or best use principles. *Project Owner: Greenville-Spartanburg Airport Commission*

Dynamic Sustainable Master Plan Update, Erie International Airport, Tom Ridge Field, Erie, PA - Airport Planner and AEDT technician responsible for public engagement efforts, facility requirement calculations, DAT integration and airport noise

compatibility studies. This project involved the development of a Sustainable Master Plan Update (MPU). The airport recently extended its main runway (Runway 6-24) and has multiple projects scheduled for FAA geometry mitigation. The MPU considers increased airline and ULCC activity, cargo activity, geometry mitigation, and obstruction evaluation. A key requirement for the MPU was the development of the Airport Dynamic Analysis Tool (DAT). The DAT computer-based model links the aviation forecasts, facility requirements, the Airport Layout Plan (ALP) and financial models, allowing the airport to rapidly evaluate scenarios (e.g. new air carrier service, air cargo services, enhanced general aviation growth) to identify key facility requirements and financial implications of these various scenarios. Flexibility in analyzing future needs was critical due to the numerous opportunities that the airport is considering along with the high costs associated with needed maintenance at the airport. Understanding the financial capacity of the airport to take on new development projects, while ensuring that needed airfield projects are completed was an important part of the plan. The MPU also considers the airport's role in regional economic development initiatives and environmental sustainability. Coordination with both local and regional stakeholders is important to determine how the airport would deliver value towards initiatives planned or already underway. *Project Owner: Erie Regional Airport Authority*

Dynamic Master Plan Update, Canandaigua Airport, Canandaigua, NY - Airport Planner and AEDT technician responsible for public engagement efforts and airport noise compatibility studies. This Master Plan Update focuses on updating existing facilities information as well as developing updated aviation forecasts which take into consideration the increased airport utilization that resulted from the recently extended runway. Additional tasks include the identification of facility requirements, environmental considerations, and the development of airside and landside alternatives that will assist with the future growth of the airport, while also meeting the sponsor's mission to enable all companies to succeed in the global economy and to retain and grow jobs within Ontario County. The project also includes the acquisition of detailed airport mapping, the completion of a boundary survey, and the development of a dynamic financial model. The financial model developed will enable the sponsor to test various "what-if" scenarios related to potential developments at the airport, which may include the construction of one or several large conventional hangars, the provision of additional fuel, or the acquisition of additional FBOs or SASOs to provide services to pilots at the Airport. Project deliverables will include a completed Master Plan Update report and Airport Layout Plan set, which will be utilized as a blueprint for future development at the Airport. *Project Owner: Ontario County Industrial Development Agency*

Dynamic Master Plan and Airport Layout Plan Update, Wilkes-Barre/Scranton International Airport, Avoca, PA - Airport Planner and AEDT technician responsible for quality assurance review of the eALP as well as airport noise compatibility studies. This project involves the development of a dynamic Airport Master Plan that utilizes an innovative approach to airport planning and provides for additional flexibility in airport planning management. The Dynamic Master Plan focuses primarily on landside access, parking and terminal issues, airfield geometry and enhanced commercial land development. The plan incorporates adjustable forecasts, scenario-based planning, planning activity levels with specific trigger points and an enhanced land development and marketing analysis based on highest or best use principles. The Dynamic Master Plan combines all of the data collected with updated aerial mapping to produce an existing conditions Airport Layout Plan (ALP) in keeping with FAA Airports GIS standards. The final product links forecast and market driven development variables to a dynamic and interactive financial plan ALP, making the final dynamic deliverables infinitely more useful to both the FAA and the airport. The land development tool enables the Airport to review and assess potential development opportunities to select for the highest and best use. *Project Owner: Wilkes-Barre/Scranton International Airport*

Master Plan Update, Allegheny County Airport, West Mifflin, PA - Deputy Project Manager responsible for project coordination and master plan development. This project involves the development of a Master Plan Update (MPU) to assure the Airport and its environs are safe and efficient and evaluate the growing needs of airport users as well as the aviation needs of surrounding communities. The plan will identify existing conditions and develop an overview of environmental conditions, aviation forecasting, capacity and demand, alternatives, and implementation planning and financial feasibility. A Runway Safety Area (RSA) analysis will also be conducted. Together, these tasks will identify areas for future aviation and aviation-compatible development, fully evaluate RSAs and taxiway geometry based on recent FAA guidance, establish the most strategic use of the airport terminal building and ancillary structures, develop a financial model to consider impacts of future changes at the Airport, and provide a complete ALP set. *Project Owner: Allegheny County Airport Authority*

Master Plan Update, Burlington International Airport, Burlington, VT – Airport Planner responsible for passenger terminal facility requirements. MJ is providing a dynamic analysis tool, facility requirements analysis and terminal development alternatives support as part of the comprehensive Airport Master Plan. The facility requirements analysis includes airside, landside and general aviation facility requirements focused on correcting non-standard geometry which was related to the close proximity of the crosswind general aviation runway to the terminal area. The terminal planning analysis was conducted for the baseline forecast scenario and 5 additional derivative scenarios focused on increased or decreased passenger air service. The 1950's era building has undergone many expansions and renovations resulting in many non-standard operating conditions that needed to be addressed and resolved as part of the facility requirements and subsequent alternatives analysis. *Project Owner: Burlington International Airport*

EDUCATION

BS - Florida Institute of Technology / Aviation Management / 2017
Coursework - University of Florida / Finance (MBA) / 2020

ROBERT V. ORI
PRINCIPAL

ROLE:

Robert Ori is one of the principal owners of Planning Technology, Inc. As Principal of the firm, he is responsible for coordination, technical conduct and quality control of company tasks. His expertise centers on working with clients to identify, develop and implement new and unique computer hardware and software applications for the aviation community and in conducting aviation planning studies.

SPECIALTY:

Identifying, developing and implementing state-of-the-art computer technology applications in the aviation planning arena. Areas include airspace analysis, three-dimensional modeling, simulation, airport and facility planning, GIS, web-enabled applications, wireless applications development and high-end computer generated graphics.

CREDENTIALS:

M.B.A., Embry-Riddle Aeronautical University, 1991

B.S. in Aeronautical Studies, Embry-Riddle Aeronautical University, 1985

Various seminars and workshops on airport, airspace, heliport and military aviation planning

Airports Council International
Private Pilot Certificate
Florida Airports Council

EXPERIENCE:

Over 35 years of experience in the aviation planning and computer applications environment. He has played key roles in identifying, developing and implementing unique standardized technological approaches and methodologies for gaining consistent quality and efficiency in project production that have become a recognized model for the aviation community.

Key involvements include:

Project and technical leader for the development of the Interactive Airport Layout Plan (iALP) and review systems for airports. These efforts entailed the definition of planning capabilities needed, complete assessment and interpretation of FAA criteria, OE/AAA data web services connections, complete analysis of airspace restrictions, assessment of digital data, recommendations on efficient data collection techniques, development and integration of off the shelf technology, use of web based methodologies and coordination with sponsor, FAA and State representatives. Sponsors include the Puerto Rico Ports Authority, Port of Seattle, Port Authority of NY&NJ, Memphis-Shelby County Airport Authority, Miami-Dade Aviation Department and the Hillsborough County Aviation Authority.

Helped to design, develop, implement and support Dispatch on Demand (DOD) Services which is an automated taxi dispatch system for John F. Kennedy International, Newark Liberty International and LaGuardia Airports. The system successfully manages and reports on over 19,000 taxis a day.

Project principal working with ACI on the design, development and implementation of the CurbPing application that independently monitors and tracks TNC operations at airports.

Project coordinator and planner for the original computerized three-dimensional airport layout plan project for Orlando International Airport. This involved the construction of 3-D airport structures, developing and incorporating airspace and shadow diagramming programs and tailoring the system to the client and FAA specifications.

Developed and continues to enhance, implement and support the Three-Dimensional Airspace Analysis Process (3DAAP) for Airport Sponsors, FAA Regions and ADOs and State Aviation agencies nationwide.

Training on airport planning, airspace planning, heliport studies and 3DAAP at numerous Airports throughout the world including the Port of Seattle, Puerto Rico Ports Authority, Greater Orlando Aviation Authority, the Port Authority of New York & New Jersey, the Republic of China and with FAA and State Department of Transportation personnel.

Established Terminal Instrument Procedures (TERPS) digital CADD templates representing 3D surfaces for numerous airports throughout the world including SeaTac, Memphis International, Miami International, Orlando International, Orlando Executive, Palm Beach International, JFK International, Newark Liberty International, LaGuardia, Luis Munoz Marin International, Tampa International and Phoenix Sky Harbor International Airports for use with the 3DAAP applications.

Worked on height zoning regulations with the State of Florida and several airports throughout the Country which included the definition of all aspects of airspace restricting criteria (FAR Part 77, TERPS, airline specific restricting surfaces, helicopter corridors).

Written several articles regarding 3DAAP and its use at airports.

Project principal for an interactive County wide, web-enabled airspace review and notification system for the Port Authority of New York and New Jersey, Palm Beach County Department of Airports and the Metro Dade County Aviation Department.

Developed various web-enabled airport planning capabilities including data retrieval, airspace, forecasting, airfield development, interactive Airport Capital Improvement Plans (ACIP), terminal planning and capacity analysis and FAR Part 150 studies.

MIKE ALBERTS
SENIOR AIRPORT NOISE SPECIALIST

SPECIALTY:

Mr. Alberts has 26 years of aviation noise, environmental, and land use planning experience at air carrier and general aviation airports throughout the United States and around the world. 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, public involvement, and off-airport land use compatibility planning. He is an expert in the use of the FAA's Aviation Environmental Design Tool (AEDT) and the U.S. DOD's NOISEMAP model.

CREDENTIALS:

BA, 1999, Geography, University of South Florida

Certifications/Professional Affiliations

Florida Airports Council Noise Abatement and Community Affairs and Environmental Committees

Florida Department of Transportation Traffic Noise Analysis - 2001

EXPERIENCE:

LaGuardia Airport FAR Part 150 Noise and Land Use Compatibility Study, New York

Mr. Alberts is currently leading the noise modeling effort on the first ever FAR Part 150 Noise Study at LaGuardia Airport. He prepared the existing 2016 and future 2021 DNL noise contours, the Noise Exposure Maps Report and is presenting technical noise information to the Study's Technical Advisory Committee. Mr. Alberts is also serving in an advisory role in the development of the technical noise analyses for the JFK Airport FAR Part 150 Noise Study.

John F Kennedy International Airport Redevelopment Program EA Noise Contours, New York

Lead Noise Modeler for the noise assessment of major improvements at the John F. Kennedy International Airport (JFK). The \$13 billion-dollar program to modernize JFK includes two new major international terminals, expanded gate and taxiway capacity, and streamlined roadway access. The project will increase JFK's capacity by 15 million passengers annually. Mr. Alberts prepared the existing, and future with project and without project DNL noise contours and quantified the off-airport land use and population impacts. This fast-track Environmental Assessment was prepared in a 5-month timeframe.

New Istanbul Airport Environmental and Social Impact Assessment Noise Contours, Turkey

Lead Noise Modeler for the Environmental and Social Impact Assessment (ESIA) at this new airport that opened in 2019. When the full build-out of the airport is completed, it will be the

largest airport in the world with six runways and will be able to accommodate up to 200 million travelers per year. Mr. Alberts prepared the existing, and future with project and without project DNL noise contours and quantified the off-airport land use, noise sensitive sites and population impacts following the environmental laws under the jurisdiction of both the European Union and the Turkish government.

Philadelphia International Airport Noise Contour Update, Pennsylvania

Lead Noise Modeler for the development of the 2016 DNL noise contours. Mr. Alberts used the airport’s NOMS system to support the development of the aircraft feet mix and to identify the airport’s arrival and departure flight tracks for input into the FAA’s AEDT version 2c noise model.

Seattle-Tacoma International Airport, Noise Contour Update, Washington

Lead Noise Modeler for the updated DNL noise contours. Sea-Tac is required to update its noise contours regularly to satisfy an agreement that resulted from litigation. Contour updates were generated for the existing conditions using the most current noise model as well as INM to meet the terms required by the agreement.

Southern California Association of Governments RTP Update Environmental Impact Report, California

Project Manager/Lead Noise Modeler for the region-wide environmental study. The plan included the management of the proposed transportation systems and travel demand in a six-county region in southern California. Mr. Alberts led the preparation of the noise contours for five different aviation scenarios involving 12 area airports and military facilities that included Los Angeles, Ontario, Palm Springs, San Bernardino, Palmdale, John Wayne-Orange County, Southern California Logistics, Long Beach, Bob Hope, March ARB, and NAS Point Mugu.

Pratt & Whitney – “New Engine Option” Noise Impact Study

Mr. Alberts conducted noise research for the aircraft engine manufacturer Pratt & Whitney. He used both the INM and, most recently, the AEDT to model single-event noise contours at major international airports across the world, comparing existing engine noise to Pratt & Whitney’s new, low-noise engine designs. Pratt & Whitney executives used the results in presentations to airport managers in North America, Europe, and Asia.

Orlando International Airport East Development Area Environmental Assessment, Florida

Lead Noise Modeler for the project that included the modeling of the existing and future noise contours for the EA. The noise analysis focused on the additional aircraft expected to occur as a result of the project. In addition, noise associated with aircraft taxiing was assessed given the close proximity of residences to the proposed project site.

Additional Noise Studies for the Following Airports:

- | | |
|--|---------------------------|
| Hartsfield Jackson Atlanta International | Los Angeles International |
| Seattle-Tacoma International | Austin-Bergstrom |
| San Francisco International | Oakland International |
| Portland International | Sacramento International |

Additional Noise Studies at the Following International Airports:

Hong Kong International	London Heathrow
Toronto Pearson International	Geneva
Cologne Bonn	Oslo

Additional Noise Studies at the Following Florida Airports:

Southwest Florida International	Orlando International
Tallahassee International	Orlando-Sanford International
Daytona Beach International	Orlando Melbourne International
Jacksonville International	Orlando Executive
St. Petersburg-Clearwater International	Gainesville Regional
Jacksonville Executive at Craig	Kissimmee Gateway
Ormond Beach Municipal	Page Field
Key West International	New Smyrna Beach Municipal

KEN SCARBOROUGH
SENIOR PROJECT PLANNER

ROLE:

Ken Scarborough is a Senior Project Manager for Planning Technology, Inc. In this role, he is responsible for managing all aspects of projects to assure the client's needs are met and the contract deliverables are prepared on-time and on-budget. He is responsible for leading client/public meetings as well as oversight of all technical aspects of the project.

SPECIALTY:

Mr. Scarborough's areas of expertise include inner-airspace design as it applies to evaluation of allowable building heights and vegetation on or near airports, airfield geometry planning, airline gate analysis, and airfield simulation for demand/capacity evaluation. He is an expert in defining three-dimensional airspace surfaces to include FAR Part 77, TERPS, OEI, AC 150/5300 and local zoning restricting surfaces. He is nationally known for processing on and off-airport proposals for the FAA, Airports and others. He is also principal designer for the eTERPS program and has extensive knowledge of OE/AAA both with the external and FAA internal site.

CREDENTIALS:

B.S. in Aviation Management / Flight Technology, Florida Institute of Technology, 1991
Pilot Certificates / Ratings: Commercial, Instrument, Multi-engine, CFI

Publications:

Airport Magazine, *Playing by the Rules*, January 2002

EXPERIENCE:

Over 25 years of professional aviation consulting experience. He has been responsible for design, development, and implementation of height zoning ordinances over major cities where urban sprawl was encroaching on the airspace of large, hub airports. Has worked extensively with airline performance engineers, the Federal Aviation Administration, airport authorities, and developers to understand the needs of each party and reach solutions that allow for economic development while not impacting the takeoff safety criteria related to the performance capabilities of the airport's fleet mix.

In addition, has performed numerous gate analyses for both airlines and airport authorities to accommodate changes in aircraft fleet mix while maximizing use of available apron space and minimizing costly reconfiguration of existing loading bridges or fuel pits.

Key projects include:

Mr. Scarborough served as Senior Project Manager for the design and implementation of the Logan Airport Composite Map. The Composite Map was developed through a multi-year collaboration

effort including input from Massport, the FAA, ATA, ALPA and other stakeholders. The success of this project has been a model that other cities have studied to address their own height zoning requirements. Mr. Scarborough has been involved since its inception in 1998, and has served as airspace consultant for numerous other projects.

Mr. Scarborough served as Senior Project Manager working with the San Francisco International Airport to analyze the potential changes to TERPS, Part 77 and complex OEI corridors surrounding the Airport due to new AGIS obstruction data and proposed runway threshold locations to meet RSA requirements. Mr. Scarborough's previous work with developing the Composite Airspace Map around SFO was instrumental in understanding the limitations imposed by the surrounding terrain and unique weather patterns experienced by the Airport.

Mr. Scarborough served as a consultant to City of Houston as they were updating the Height Zoning Ordinances for the areas surrounding the City's two commercial service airports, and Ellington Air Force Base. This project included integrating new protocol within the Building Permit process to include cross-checking against FAA notice criteria.

Mr. Scarborough served as Senior Airport Planner on the Rhode Island Vegetation Management Program (VMP) project that involved spatial analyses of the Part 77 and other critical surfaces in relation to the ground contours surrounding each of Rhode Island's public-use airports. Vegetation Management Zones were then developed based on the vertical distance from the ground to the critical airspace surface. Utilizing GIS tools, potential problem areas were identified where the soil types and tree species data (acquired as part of this project) indicated the likelihood that trees would grow to unacceptable heights.

Mr. Scarborough served as Senior Airport Planner for the request for an aeronautical study at T.F. Green Airport in Warwick, Rhode Island. This project involved processing large amounts of point data including vegetative and non-vegetative obstructions. Through an iterative process with the Airport and the FAA, a cutting program was developed for each runway end based on the needs of the approaches serving each runway end, the wetland impacts, and the number of aviation easements that would need to be acquired. The use of obstruction lighting reduced both wetland impacts and the need for aviation easements, thereby saving money for both the Airport and the FAA. Mr. Scarborough assisted with the preparation of the DEM permits and oversight of the tree cutting program during project implementation.

Mr. Scarborough served as project manager working with the City of Phoenix to design and implement height zoning over one square mile of downtown Phoenix. In addition to Airport and FAA inputs, this project required extensive coordination with the Sky Harbor tenant airlines to assure their one engine inoperative takeoff requirements were not compromised. Outside of this project area, Mr. Scarborough's expertise was utilized to evaluate the potential aeronautical effect of numerous proposed structures in the rapidly growing metropolitan areas surrounding the Airport.

Mr. Scarborough has served as Senior Airport Planner for gate analyses for both airport authorities and individual airlines. Gate analyses locations include: Aruba, Baltimore, Boston, Mexico City, Montego Bay, Orlando, Providence, San Juan, St. Croix, as well as four airports in Peru and numerous general aviation airports.



Monty Gettys has over thirty-five (35) years of experience in planning, environmental analysis and engineering design for airport and aviation-related projects. Ms. Gettys has extensive planning experiences including master plan and facility development, industry research, feasibility studies, forecasting, demand/capacity analyses and alternative analyses and capital improvement program development for airport development.

Ms. Gettys has significant recent and relevant expertise in noise compatibility planning, airport land use issues both on and off airport property, environmental assessments, public outreach, airport economic development, airport business planning and cost consulting expertise for airside and landside projects. For cost estimating assignments, Ms. Gettys conducts quality assurance on estimates, leads research on current pricing, and works hand in hand with the engineer/architect-of-record to clarify issues of constructability and phasing.

INDUSTRY EXPERIENCE

The following examples highlight Ms. Gettys' variety of recent airport expertise:

- **Ft. Lauderdale–Hollywood International Airport, FL – FAR Part 150 Noise Study and Land Use Policies** – Providing land use analysis and development of land use strategies and mitigation policies associated with the Part 150 project. Responsibilities include GIS database development, estimates of impacted population, land use analysis, and development of Noise Exposure Maps (NEMs).
- **Ft. Lauderdale Executive Airport, FL – Update of Land Development Codes** – Reviewed and provided recommendations to City of Ft. Lauderdale’s existing land development regulations (ULDR) to comply with current Florida Statute (FS) 333, Airport Zoning for Fort Lauderdale Executive Airport and Fort Lauderdale Downtown Heliport. MCG is assisting the City with updates to ULDR.
- **Hendry County, FL – Update of Land Development Codes** – Reviewed and provided recommendations to Hendry County’s existing land development regulations to comply with current Florida Statute (FS) 333, Airport Zoning for LaBelle Airport and Airglades Airport. MCG presented recommended changes to County, and assisted in County’s attorney in update process.
- **Ft. Lauderdale Executive Airport, FL - Environmental Assessment – Lifting of Weight Restriction on Main Runway** – Responsible for tenant survey to document forecast changes based on lifting of 60,000 lb. dual wheel weight limit, completion of FAA Environmental Assessment Form (mini-EA), coordination of FONSI. Presentations to Airport Advisory and Tamarac City Commission.
- **Cecil Field, FL – Maintenance, Repair, Overhaul (MRO) Market Survey and Incentives Program** – Responsible for research on MRO incentives at U.S. airports, lead developer and implementer of market survey and benchmark comparison of MRO marketing opportunities.



EDUCATION

Master of Business Administration in Aviation
Embry Riddle Aeronautical University
Daytona Beach, FL
1990

Bachelor of Science in Civil Engineering
Michigan State University
East Lansing, MI
1983

SPECIALIZATIONS

Project Management
Airport Planning
Airport Noise Compatibility Planning
Land Use Analysis
Airport Economic Development PI
Public Outreach
Cost Estimating

PROFESSIONAL ORGANIZATIONS

Airport Consultants Council
Florida Airports Council



- **ACRP Project 02-35 Research Methods for Understanding Aircraft Noise Annoyance and Sleep Disturbance** - Assisted in developing a survey instrument to measure community reaction to aircraft noise, and developed a protocol to address public questions regarding the telephone and mailed survey data collection process. Developed questions to engage and query airport staff regarding their airport and community relationship.
- **ACRP Project 02-37 Integrated Noise Model Accuracy for General Aviation Aircraft** - Responsible for conducting a web-based survey of FAA Integrated Noise Model (INM) users, developed a database of individuals to survey, developed questions, created a web-based survey, documented the results, and produced a memorandum describing present “state-of-the practice” of the INM use. Followed-up the web-based survey with a telephone survey with select respondents who identified concerns and documented identified issues.
- **Naples Municipal Airport, Naples, FL – FAR Part 150 Study** - Responsible for land use documentation of Part 150 study including identifying, analyzing, and evaluating compatible land use strategies, and a review of Implementation and effectiveness of land use measures.
- **Dallas-Ft. Worth International Airport, TX - Air Cargo Marketing Analyses** - Responsible for identifying volumes between potential gateways including research, analysis of Commerce data, and development country-by-country volumes of import and export air cargo for presentation to air carriers.
- **Ft. Lauderdale Executive Airport, Ft. Lauderdale, FL – Compatibility Ordinance and Zoning Evaluation** – Reviewed land use and existing zoning districts and other relevant city ordinance regarding airport compatibility issues to promote compatible land use development. Evaluated and identified the implementation for change process and managed the development of the GIS database for land use and determined ordinance and zoning related to airport compatibility.
- **Boston Logan International Airport, MA - Environmental Impact Statement Review and Public Participation Program** - Lead Planner as part of the EIS/EIR process for the airside improvements at Boston Logan International Airport taking a lead role in the public participation program in the airside review committee (ARC). Acting as a technical advisor to the Citizen Advisory Committee (CAC), which is composed of members from over 24 communities surrounding Logan Airport. The airside improvements include the development of a new runway, taxiway improvements, peak period pricing, and other regional transportation issues.
- **Cost Estimating for:**
 - Orlando International Airport (MCO), FL – Design-level estimating for:
 - South Terminal Complex – Phase I and Expansion (2016-2019);
 - BP-484 Landside Central Plant Improvements (2018);
 - BP-471 Main Point of Entry Schematic (2017);
 - Parking Garage, A&B Terminal (2015).
 - Tampa International Airport (TIA), FL - Design level estimating for:
 - Short Term Parking Garage Helix Lighting Replacement (2019)
 - Airside F Cooling Tower & Temp Towers (2018)
 - Airsides A & F AHU Replacements Estimating + Add Service (2018)
 - NOC Chiller (2017)
 - Destin-Ft. Walton Beach Airport (VPS) - New Satellite Concourse C (2019 - Ongoing)
 - Flagler Executive Airport (FIN) - Aviation Terminal (2019)
 - Tampa Executive Airport (VDF) - Fire Suppression Tank Rehab at Hangars 3700/A, & Hangar 4800/C (2019)
 - Charlotte International Airport (CLT) – Cargo 7 Building Relocation (2019)



PLANNING | ENVIRONMENTAL | ENGINEERING: TRANSPORTATION | AVIATION | INFRASTRUCTURE

Prateek Sharma is a Senior Project Manager and CAD/GIS/BIM Manager with over 15 years of experience in planning for transportation, airport and infrastructure projects. Mr. Sharma brings an array of advanced technical skills including CAD, BIM and GIS software expertise and software application development. He manages MCG’s CAD/GIS/BIM staff. He has also performed web application development incorporating the software development cycle, and been involved in software development through implementation and maintenance.

Since joining Montgomery Consulting Group as an Aviation Planner in 2005, Mr. Sharma has supported airport master plan development, airport layout plan (ALP and eALP) and facility development, alternative analyses, land use analyses, and capital improvement program development. He is well versed with identifying and implementing FAA Advisory Circulars and Order guidance, and keeps updated with ACRP recommendations for best practices in the industry. Mr. Sharma has completed the AGIS Integrated Distance Learning Environment (AGIS-IDLE) training provided by the FAA Office of the Associate Administrator for Airports.

INDUSTRY EXPERIENCE

Mr. Sharma has been involved in the following projects:

- **Greater Orlando Aviation Authority (GOAA), Orlando, FL – CAD and GIS Support**
 - Managing CAD/GIS staff and consultants as the staff extension GIS/CAD Manager for the Planning department and overseeing the implementation of various GIS projects.
 - Responsible for verifying/reviewing the quality and validity of the existing and planned Electronic Airport Layout Plan (eALP). Aviation Authority’s representative responsible for initiating and managing various FAA’s Airports GIS (AGIS) projects.
 - Responsible for conducting airspace obstruction analysis using GIS tools and 3D airspace surfaces, coordinating with local ATCT and FAA’s form 7460-1 filing.
 - Developed GIS based Exhibit ‘A’ Property Maps for Orlando International Airport (MCO) & Orlando Executive Airport (ORL). Designed and developed a GIS based airport parcel database to incorporate boundary survey data, property parcels generated from legal documents, property ownership history, sources of funding at the two airports. Developed unique parcel identification logic to help preserve parcel history, geometry and records in geodatabase and associated MS Access database (housing the documents associated with each sale).
 - Developed procedures for GIS based field data collection of various assets at MCO.
 - Overhauled the processes and procedures for utilities data acquisition and update by programming and automation to reduce total turnaround time from 5 days to 3 hours.
 - Developed Cable Management system logic & database to collect all fiber optic systems cable properties and network information for MCO. Developed data check-in/check-out and integration processes for field collected data and GOAA’s GIS systems.
 - Developed databases & map books to track and document tenant leases on MCO & ORL.
 - Responsible for the address assignment application testing. Managed and lead the team of staff testing the application, developed test scenarios/cases, documented test results, developed recommendations for improving the application, oversaw application testing



EDUCATION

Master’s in Business Administration, 2017
Rollins College, FL

Master’s in City & Regional Planning, 2004
The Ohio State University
Columbus, OH

Bachelor of Architecture, 1998
Institute of Environmental Design
Vallabh Vidyanagar, India

CERTIFICATION

GISP – Cert # 90827
FAA IDLE – Cert # FAAIDLE20101112-00074

SPECIALIZATIONS

Airport Planning
Geographic Information Systems
Noise Impact Analysis
Land Use Compatibility
Pavement Management Systems

PROFESSIONAL ORGANIZATIONS

Airport Consultants Council
Florida Airports Council
FLURISA



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and coordinated with the Consultant to finalize and deploy the application. As part of the second phase, developed application upgrade requirements.

- Developed Airport Layout Plan sets for Orlando International and Orlando Executive Airports.
- **Southwest Florida International and Page Field Airports, Ft. Myers, FL – Pavement Management System**
- Project management including project and software needs assessment, development of QA/QC standards and process and field data collection application development, deployment and testing.
- Liaised between various stakeholders and developed requirements for the development team.
- Collected and inventoried historic pavement data from various sources and formats including, as-built drawings in AutoCAD, PDF and paper drawings.
- Created a database to inventory of pavement condition data and associated required attributes.
- Established field data collection, data post processing and report generation standards and developed procedures for the same.
- Final report and user manual preparation and training of airport staff in setup and use of the data collection tool, incorporating field collected data into MicroPaver software and generating MicroPaver reports.
- **South Carolina Aeronautics Commission (SCAC), West Columbia, SC – Compatible Land Use Evaluation (CLUE) Tool**
- Assisted with evaluation of existing Land Use Notification and Review Criteria to guide SCAC compliance
- Assisted with evaluation of existing SCAC airport, land use and other data; and identification of gaps in the data to support the functional requirements of the desired notification and review criteria, workflow tracking aeronautical and land use analysis and defined software requirements.
- Assisted with evaluation of desired SCAC workflow for tracking proposed development cases and SCAC activities for each case.
- Developed master testing parameters, variables and testing tracking guidelines for the application.
- Managed, directed and lead the software acceptance and load testing team
- **Tulsa International Airport, Tulsa, OK – eALP Development**
- Assisted in eALP data development.
- Collected AC 150/5300-18B compliant geometries and conducted QA/QC on feature geometries.
- Cleaned up and complied multi-format data from various sources, including, pdf, MS Word, Excel documents and CAD files.
- Prepared CAD eALP feature class data for attribute assignment and populated available required attribute information
- Conducted data gap analysis.
- **Ft. Lauderdale–Hollywood International Airport, FL and Naples Municipal Airport, FL – FAR Part 150 Noise Study and Land Use Policies**
- Collected demographic information and developed GIS database and leveraged GIS based tools to develop estimates of impacted population and number of housing units, land use analysis, and development of Noise Exposure Maps (NEMs).
- Responsible for providing land use analysis and development of land use strategies & mitigation policies associated with the Part 150 project.
- Created and modeled noise contours using FAA’s Integrated Noise Model (INM) modeling software.
- **North Perry Airport, Pembroke Pines, FL – Master Plan Update and GIS Utilities Development**
- Integrated Geographic Information Systems (GIS) to reflect land use information around the airport. Utilities & Lease data was collected from various agencies in multiple formats (CAD, PDF, Paper, etc.) and incorporated into the GIS system.



Sara Sullivan is a multi-talented Aviation Planner with over four (4) years of experience in airport planning and design. Ms. Sullivan is a graduate civil engineer that has been supporting the firm’s airport projects. She uses CAD, GIS and BIM software on a daily basis to support planning, environmental and engineering projects. Since joining MCG, she has been responsible for development of several client-requested databases, industry research, plan production, plan processing, and scheduling.

Ms. Sullivan has experience in cost estimating from small to multi-billion-dollar project. She provides cost estimating for numerous projects, and supports takeoffs and pricing for architectural, mechanical, plumbing, and technology specialty areas. She has experience in airport airfield, landside and roadway projects.



INDUSTRY EXPERIENCE

The following examples highlight Ms. Sullivan’s experience:

- **Aircraft Noise and Operations Monitoring System – Ft. Lauderdale, FL, Ft. Lauderdale Hollywood International Airport** – Provides data collection input into the noise and operations monitoring system model and uploads the data sets to the client’s system.
- **Partnership for Quiet Skies – Ft. Lauderdale, FL, Ft. Lauderdale Hollywood International Airport** – Provides quarterly analysis of noise data using airport’s noise and operations monitoring system model.
- **Strategic Commercial Land Development – Orlando, FL, Orlando International Airport** – Developed GIS-created development zones to reflect GOAA’s commercial land use. The project includes differentiating the developable zones and the non-developable zones incorporating conservational wet land areas and existing and future airport/airfield land uses at the Orlando International Airport.
- **Traditional Airport Layout Plan Set Development – Orlando, FL, Orlando International Airport** – Developed an 18-sheet Airport Layout Plan adhering to FAA’s AGIS criteria and developed a checklist for submittal to GOAA and FAA using CAD and GIS tools. Developed FAA ALP Checklist.
- **Compatible Land Use Evaluation (CLUE) Tool – West Columbia, SC, South Carolina Aeronautics Commission** – Provided quality assurance testing of a GIS-based land use model to identifying potential conflicts between proposed development and safe operation of aircraft at all airports in the State of South Carolina.
- **FAA - SRA International National Noise Annoyance Survey** – Collected information from multiple sources regarding noise related issues and aircraft annoyances. Analyzed data and prepared reports.
- **Orlando International Airport, Orlando, FL - South Terminal Complex – Phase I and Phase I Expansion** - Provided cost estimates for 30%, 60%, 95%, 100%, and currently providing Construction Administration estimating for Bulletins (change order reviews) for this multi-billion project.

EDUCATION

Bachelor of Science
In Civil Engineering
Florida Institute of
Technology
Melbourne, FL
2013

SPECIALIZATIONS

Airport Planning
Civil Engineering
CAD / GIS / BIM
Cost Estimating

TECHNICAL SKILLS

AutoCAD
Revit
ArcGIS
FAA IDLE AGIS Certified
Microsoft Office Suite
Microsoft Access
Microsoft Project

Nannette Rodriguez

Public Involvement / Community Outreach



EXPERIENCE – 25+ YEARS

Ms. Rodriguez is bilingual and bi-cultural and has over 25 years of nationally recognized internal and external government and public-sector public relations and marketing experience. She successfully leads, manages, coordinates and executes communications strategy across diverse platforms and tactics. Her vast experience has developed her into an expert in media relations, social media, crisis communications, digital media, publishing, multi-platform copywriting/editing, branding, reputation management, advertising/marketing, community relations and outreach, government affairs, special events, and video production. As senior communications manager for Quest Corporation of America, Ms. Rodriguez is responsible for overseeing and implementing communications, marketing, public outreach, and community relations programs for its professional clients.

RELEVANT EXPERIENCE

City of Dania Beach, Public Relations Services for City's Brand

Dania Beach, FL (2018 – Present)

Ms. Rodriguez leads the public relations efforts by utilizing various strategies and activities, such as surveys and media relations, to promote the distinctive qualities of the city and the opportunities that come with residing, visiting and investing in the city.

Broward Metropolitan Planning Organization (BMPO) Mobility Hub Planning, Design and Implementation

Cities of Pembroke Pines, Plantation, Sunrise, Coral Springs, Broward County, FL (2018 – Present)

Ms. Rodriguez supports the community outreach for the master and implementation planning effort including meetings, surveys or focus groups and assist with development and production of various related collateral materials.

FDOT, District Four, I-95 Multimodal Master Plan

Martin, St. Lucie, and Indian River Counties, FL (2018 – Present)

Ms. Rodriguez leads the public information and outreach efforts for the 71-mile planning study that is part of the continuing process for the development of the Strategic Intermodal System and in reaching overall regional mobility goals, and to make recommendations to protect and enhance the corridor through the year 2045.

FDOT, District Four, Coral Ridge Drive Mobility Improvements

Coral Springs, FL (2018 – Present)

Ms. Rodriguez leads the public involvement for this design project that includes new buffered bike lanes, signalization replacements, upgrading pedestrian signals and ADA/curb ramps, regrading roadside drainage swales, limited tree removal, and roadway widening, milling, resurfacing and restriping.

FDOT, District Six, Public Communications Consulting Services on Miscellaneous Construction Projects

Miami-Dade and Monroe Counties, FL (2019 – Present)

Ms. Rodriguez serves as the project manager for numerous road construction projects ensuring that deadlines are met within budget.

Dania Beach Redevelopment Agency, Public Relations Services

Dania Beach, FL (2019)

Ms. Rodriguez provides public relations and advertising activities to create and increase community awareness of the Dania Beach CRA District's 2019 Arts and Seafood Celebration including media relations, media buying, and video production.

FDOT District Four, I-95 at Northlake Boulevard Interchange

Palm Beach Gardens, Palm Beach County, FL (2017 – Present)

Mr. Rodriguez serves in a supporting role for public outreach and public involvement activities. The project will improve the I-95 exit ramp, intersection operations, travel times, mobility for pedestrians, bicycles and transit, and safety.

City of Fort Lauderdale South Ocean Drive Bridge Replacement Project

Fort Lauderdale, Broward County, FL (2018 – Present)

Ms. Rodriguez assists with the community outreach for this city-funded design project to replace a 66-year-old bridge over a navigable waterway and into a heavily populated neighborhood on the north side the Port Everglades Inlet.

FDOT District Six, Public Information Services, Public Safety

Miami-Dade and Monroe Counties, FL (2018 - 2019)

Ms. Rodriguez provides an array of services and expertise in multiple areas including media/public relations and strategic marketing planning, social media, editing/writing, community outreach efforts for pedestrian and driver safety campaigns, transportation summits and technology-driven events. Projects include Palmetto Express Lanes' "Drive Safe," anti-litter, and pedestrian and driver safety.

FDOT District Four, Crosstown Parkway Extension Design / Build Project

Port St. Lucie (April 2018 – Present)

Ms. Rodriguez supports the lead Public Information Officer on the \$90 million project, which provides a new bridge crossing over the St. Lucie River. Support includes community and media relations, responding to public inquiries, maintaining the website, producing project collaterals, and the planning and implementation of project events, such as ceremonies, job fair, and project site tours.

FDOT District Four, Lyons Road Mobility Improvement Project

Coconut Creek, FL (2018)

Ms. Rodriguez implements the public involvement of the Community Awareness Plan (Level II) that included outreach for the public workshop for the project that includes new bicycle lanes and improved sidewalks as part of the MPO's Complete Streets plan.

FDOT, District Four, I-95 Interchange at Sample Road

Pompano Beach, Broward County, FL (2018)

Ms. Rodriguez assists the team on this design project supporting a public information workshop and community outreach.

FDOT, District Four, University Drive Widening Project

Coral Springs, FL (2018)

Ms. Rodriguez assists the team on this design project supporting a public information workshop and community outreach.

City of Miami Beach Public Works, Transportation Division, Miami Beach Trolley

Miami Beach, FL (2015-2016)

Managed the launch and development of the branding, communications and marketing of the citywide transportation system.

City of Miami Beach, Planned Progress, Citywide Capital Improvement Program

Miami Beach, FL (2001-2016)

Overall public communications plans, messaging, and branding for all City projects (CIP and Public Works) varied from infrastructure (water, storm water and wastewater) to right-of-way, street, streetscape, park, parking, and transportation improvements.

City of Miami Beach Public Works, Environmental Division, "I Recycle Because . . ." Campaign

Miami Beach, FL (2013)

Public outreach and social media campaign to educate the community on the new ordinance requiring every residential and business property to have a recycling program. Partnered with the City's recycling business partner, Coca-Cola, to distribute reusable branded tote bags at community events. Community members then personalized messages on the bags as to why they recycle and shared on social media.

City of Miami Beach Planning Department, Citywide Wayfinding Signage Program

Miami Beach, FL (2004-2005)

In conjunction with the city team and the design team of Hillier, EDAW, F.R. Aleman and Associates, developed the scope of the project and the community outreach and engagement for the program.

City of Miami Beach / Miami Beach Transportation Management Association, The Electrowave

Miami Beach, FL (1998-2002)

Communications, branding and marketing of electric shuttle service launch for the South Beach entertainment district. The service was later incorporated into Miami-Dade Transit system as "The Local."

EDUCATION

- University of Miami, Bachelor of Arts, Communications, major, Marketing, minor

Beth Zsoka

Public Involvement / Community Outreach

Experience – (13) Years

Beth Zsoka is an experienced communications professional who serves public-sector clients throughout Florida and the United States. With an in-depth knowledge of the transportation industry, she excels in public involvement / information, market research, consensus building and community outreach. Ms. Zsoka is skilled at identifying potential issues and working with her clients to find workable solutions. She has strong writing, event planning and communication skills. Her background includes developing and implementing effective surveys; communicating and educating the public about project concerns; forming and managing effective working groups and task teams; and hosting successful events, meetings and workshops.

As a Business Unit Manager, Ms. Zsoka is responsible for client relations, project management, product and project delivery and Quality Assurance / Quality Control. She has served on several projects in the area from transit and aviation to traditional road and bridge projects. She is a senior public involvement specialist with extensive experience in market research and community outreach efforts.

RELEVANT PROJECT EXPERIENCE

Palm Beach International Airport, Focus Groups

Palm Beach County, FL (2012)

Ms. Zsoka assisted in recruiting residents from all over the Treasure Coast to participate in focus groups for the Palm Beach International Airport. The airport asked QCA to conduct focus groups to learn more about their target audience and their travel habits / preferences.

Airport Cooperative Research Program (ACRP), Industry-wide Research Effort

National (2008)

For this project, Ms. Zsoka supported the Airport Cooperative Research Program (ACRP) in their national, industry-wide research effort. Ms. Zsoka planned and facilitated focus groups and workshops. Following the focus groups, held all over the United States, Ms. Zsoka compiled the research results, which were presented in public workshops in Washington D.C. and Irvine, California.

Miami-Dade Aviation Department, Strategic Master Plan Study

Miami, FL (2009)

Ms. Zsoka served as a team leader conducting departing and connecting passenger surveys at Miami International Airport for Miami-Dade County's Aviation Department. Under her direction, QCA associates collected almost 4,000 surveys over a two week period. Ms. Zsoka was also responsible for assisting with compiling the data, which was critical in the development of the airport's Strategic Master Plan.

Georgia Department of Transportation (GDOT), Economic Impact Study

Georgia Statewide (2010)

Ms. Zsoka helped lead the effort for the Georgia Economic Impact Study surveys for the Georgia Department of Transportation (GDOT). She helped survey passengers in the Savannah / Hilton Head International Airport, Athens-Ben Epps Airport, Southwest Georgia Regional, Golden Isles Airport, Columbus Metropolitan, Valdosta Regional and Middle Georgia Regional Airport to determine how much money visitors spent while they were in Georgia. She was also responsible for coordinating and scheduling the efforts with each airport.

FDOT, Economic Impact Study

Florida Statewide (2009)

Ms. Zsoka assisted with the Florida Economic Impact Study surveys for the Florida Department of Transportation (FDOT). She helped survey more than 2,000 passengers in the Daytona International Airport, Orlando Sanford International Airport, Southwest Florida International Airport, Palm Beach International Airport and Jacksonville International Airport to determine how much money visitors spent while they were in Florida.

Tampa International Airport, Master Plan Update

Tampa, FL (2007 – 2010)

Ms. Zsoka supported Tampa International Airport Master Plan update by coordinating and facilitating survey efforts, compiling survey data and reporting results to the client. She assisted in collecting more than 5,000 surveys for the airport.

Tallahassee Regional Airport, Marketing and Communications

Tallahassee, FL (2008)

Ms. Zsoka provided quality control for creative collateral materials produced by the airport. She also coordinated and managed various activities for the airport's Annual Kid's Day Event.

Florida Department of Transportation (FDOT), District Four, SR 7 Design Project

Palm Beach County, FL

Ms. Zsoka leads the public involvement efforts on this controversial design project in Palm Beach County. For this project, Ms. Zsoka facilitated a public information meeting for hundreds of concerned residents. Ms. Zsoka works to engage stakeholders and create consensus for this project that calls for extending SR 7 from Okeechobee Boulevard to Palm Beach Lakes Boulevard through environmentally sensitive wet lands and residential communities in western Palm Beach County. Ms. Zsoka facilitates meetings and coordination with key homeowner associations and groups regarding the project.

City of Boca Raton Police Department, Citizen Satisfaction Surveys

Boca Raton, FL (2014-2015)

Ms. Zsoka served as the project manager for two rounds of the Boca Raton Police Department Citizen Satisfaction Surveys for the Boca Raton Police Department. Ms. Zsoka led the survey team in scheduling specific times and locations, surveying, inputting and analyzing data and preparing a final report for the client. Ms. Zsoka also surveyed residents and business owners on their perception of the Police Department, including attire, attitude and ability to fight crime.

Boynton Beach Blvd and Gateway Boulevard Interchange Projects PD&E and Design

Palm Beach County, FL (2015-Present)

The purpose of the project is to enhance overall traffic operations at the existing interchanges by providing improvements to achieve acceptable Levels of Service (LOS) at the interchanges in the future condition (2045 Design Year). The need for the project is based on capacity and transportation demand, growth management, safety and emergency evacuation, and response time enhancement. Ms. Zsoka has served on this project from the PD&E into the Design. Information for this project was provided in both Spanish and Creole. Ms. Zsoka is currently supporting the design with a community awareness plan and community outreach.

FDOT District Four, I-95 at Northlake Boulevard Interchange PD&E and Design

Palm Beach County, FL (2015-2017)

Ms. Zsoka supports the Northlake Boulevard Interchange Project with public outreach and public involvement throughout the project. Activities during the PD&E included: Public Meeting and Hearing Support, PowerPoint Presentation Support, Project Newsletters, Door to Door Outreach for Businesses and Website Updates. The project will help eliminate the I-95 exit ramp traffic from queueing into I-95; improve intersection operations; maintain reliable travel times; improve mobility for pedestrians, bicycles and transit; and improve safety and reduce crashes. Ms. Zsoka is currently serving on the design and has drafted a Community Awareness Plan.

FDOT District Four NW 19th Street Design Project

Fort Lauderdale, FL (2016-2017)

Ms. Zsoka led the community outreach efforts for the improvements to the FDOT NW 19th Street project. The design project includes four foot bike lanes throughout the project limits with lane reductions. Ms. Zsoka organized the public meeting and was instrumental in informing the community stakeholders of the potential changes for the design. Ms. Zsoka is worked closely with the agencies for this project as it stretches through several municipalities.

FDOT District Four, University Drive Design Project from Sample Road to the Sawgrass Expressway

Coral Springs, FL (2015 – Present)

Ms. Zsoka leads public involvement activities on this design project in Broward County. She works closely with the project team and key stakeholders to plan and coordinate public involvement activities. She is working closely with the City of Coral Springs, homeowner associations along the corridor and the diverse community to inform them about the project and the future design activities and impacts.

EDUCATION

- B.S., Communication Arts, cum laude, Public Relations, Georgia Southern University

PROFESSIONAL DEVELOPMENT

- Public Involvement Training, FDOT and National Transportation Industry
- Media Training, Up Front Communications
- PD&E Training, FDOT

Michael K. Payne, AIA Project Architect

Registrations

Registered Architect
Ohio, Florida, Massachusetts, Connecticut, Rhode Island, Michigan, Louisiana, New York,
New Jersey, Texas and Arizona.
NCARB Certified Architect.

Education

Master of Architecture, University of Oregon
Bachelor of Arts, University of California, Riverside

The Jones Payne Group, Inc.

1996 – Present

Mr. Payne is a Founder and Principal of The Jones Payne Group, Inc. a nationally recognized leader in the planning and implementation of community-focused programs, providing architecture, urban planning and design, program management, and information management services and products to the public and private sector. Mr. Payne has led the firm to the national forefront of sound insulation programs for airport, transit, and rail modernization programs. In his 25 years of involvement in noise mitigation programs, Mr. Payne has served in a variety of roles to insure the success of these programs.

As Principal-in-Charge on 21 noise mitigation programs across the country, Mr. Payne has worked closely with airport officials, FAA personnel, building owners, local and regional planners, and regulatory officials to insure that their goals and agendas are incorporated into the programs that provide noise mitigation to impacted communities.

In this same capacity as Principal-in-Charge, Mr. Payne has been responsible for coordinating a diverse range of other technical professionals – acoustical engineers, mechanical and electrical engineers, environmental consultants, code specialists – all of whom are part of a team effort to evaluate existing conditions in structures to be sound insulated and subsequently creating the plans, specifications, and details necessary to do so.

Serving as Project Architect on many of these same programs, Mr. Payne has worked closely with designers and manufacturers of the acoustical materials products used in sound insulation programs to insure that programs benefit from the most recent innovations available.

As a construction manager and/or administrator on sound insulation programs, Mr. Payne has worked with contractors to insure that the acoustical products and treatments are procured and installed pursuant to the plans and specifications.

Finally, as an industry expert, Mr. Payne regularly meets with community groups and industry colleagues to share ideas and foster better mutual understanding of the challenges of creating a quieter environment through noise mitigation.

Professional Memberships

- The American Institute of Architects
- American Institute of Aeronautics and Astronautics
- American Association of Airport Executives
- The Boston Society of Architects
- Construction Specifications Institute
- The National Trust for Historic Preservation

Professional Activities & Awards

- Chairman, City of Somerville, Massachusetts, Historic Preservation Commission, 1997 – 2008; Member, 1997 to 2011
- Member, Boston Society of Architects, Historic Resource Committee, 1988 to present
- Member, Planning Committee, Airport Noise Mitigation Symposium, 2005 to present; Chairperson for 6th Annual Symposium, Boston, 2006
- 2010 Recipient: AAAE/ANMS Randy Jones Award for Excellence in Noise Mitigation
- Principal Investigator, ACRP Research Grant 02-24: Update of FAA's Guidelines for

Relevant Projects

Sound Insulation Programs

Residential, schools, religious institutions and community facilities (including National Register historic properties)

- San Diego, CA
- San Francisco, CA
- Ontario, CA
- Phoenix, AZ, Phoenix Feasibility Study
- Boston, MA
- Columbus, OH
- Cleveland, OH, Unit Price Construction Model Development
- Detroit, MI
- Milwaukee, WI
- Indianapolis, IN
- Nashville, TN
- Pittsburgh, PA
- Winthrop, MA
- Pease Trade Port, NH
- Hartford, CT
- Warwick, RI
- Ft. Lauderdale, FL
- Key West, FL

Railway Sound Insulation Programs

- Valley Transportation Authority (VTA) – Santa Clara, CA
- CSX / Norfolk Southern, Cleveland, OH - Noise Mitigation Manual
- Massachusetts Bay Transit Authority (MBTA) Blue Line
- Tri-County Metropolitan Transportation District of Oregon Light Rail

Adaptive Use Additions & Rehabilitation

- Library Addition – Medfield, MA
- Lawrence Academy
- Keith Academy
- Lowell Boarding House

Sound Insulation of Residences Exposed to Aircraft Operations

Prior Professional Experience

CityDesign Collaborative, Inc.

1986 – 1996

Mr. Payne was a senior associate of this full-service architecture and planning firm with extensive experience in housing, community facilities, historic preservation, and adaptive re-use programs throughout New England. Mr. Payne was responsible for leading the firm's practice in airport sound insulation programs, including Massport's Residential Sound Insulation Program, one of the nation's first and largest programs. Under his leadership, the firm extended its involvement into the national marketplace, eventually providing program formulation, design, and construction phase services to airports and transit projects in Ohio, Arizona, Oregon, California, Pennsylvania, and Louisiana.

Payne Construction Services

1977 – 1982

Mr. Payne was a partner in a residential contracting business specializing in the design and construction of custom homes in the Pacific Northwest.

International Development Agencies

1971 – 1977

As a Peace Corps volunteer, Mr. Payne served in Nepal, after which he was engaged as a private consultant and/or employee of several international development agencies, including UNICEF and the World Health Organization. His work included designing and building gravity flow drinking water systems and a rural hospital.

Papers and Presentations

"Airports Survey: Status of Sound Insulation Programs," Presenter, AAAE's 13th Annual Airport Noise Mitigation Symposium, Reno, Nevada, 2013

"Airport Cooperative Research Program, Research Project 02-24: Team Structure and Approach for Updating FAA's Guidelines for Sound Insulation of Residences Exposed to Aircraft Operations," Presenter, AAAE's 10th Annual Airport Noise Mitigation Symposium, San Francisco, CA, 2010

"Sound Insulation Program Efficiencies: Tips on How to Make Your Program More Efficient," Moderator, Roundtable Presentation, AAAE's 8th Annual Airport Noise Mitigation Symposium, San Antonio, TX, 2008

"Sustainable Design, Wood Windows, and Energy Performance," Presenter, Preservation Colorado: Annual Saving Places Conference, Denver, CO, 2007

"Noisy at Any Level? A Discussion of Metrics Used by the FAA to Measure Annoyance," Moderator, Roundtable Presentation: AAAE's 6th Annual Airport Noise Mitigation Symposium, San Diego, CA, 2007

"Overview of FAA Funded Noise Mitigation Program," presented at 13th Annual National Aviation Environmental Management Conference, Indianapolis, IN, 2004

"Sustainable Design, Windows and The Energy Code," Presenter, Massachusetts Statewide Conference for Historic Preservations, Salem, MA, 2004

"Sound Insulation of Schools: Design & Construction Considerations," Co-Presenter, Annual Conference, National Organization Sound Environment (N.O.I.S.E.), Ft. Lauderdale, FL, 2004

"Exterior Sound Proofing that Works," article published in The Journal of Light Construction, July 2001

"Survey of Best Practices for Sound Insulation Programs," conducted research and presented annual study results at AAAE Airport Noise Mitigation Symposia, 1992 – 1995

- Phoenix Sky Harbor International Airport Feasibility Study to Provide Sound Mitigation Services, Community Noise Reduction Program, City of Phoenix Aviation Department, Phoenix Sky Harbor International Airport, Phoenix, AZ
- Vasona Valley Transit Authority – Tasman / Capitol Light Rail Noise Insulation Program, San Jose, CA
- King County International Airport Sound Insulation Program, Seattle, WA
- Massport Residential Sound Insulation Program Logan International Airport East Boston, South Boston, Winthrop, Revere
- Wall Improvements at Torre Unidad, Boston, MA
- Wall Improvements at Seventeen Elderly & Disabled Developments Boston, MA
- Window Improvements at Six Elderly & Disabled Developments Boston, MA
- Bayswater Environmental Fund Grant Program, Boston, MA
- Newton Housing Authority (Jackson Gardens and Parker House) Bathroom Upgrades and Firestopping, Newton, MA
- Newton Housing Authority (Echo Ridge & Beaconwood Developments) Façade Improvement, Newton, MA
- Brandywyne Phases 1 & 2, East Boston, MA
- Ft. Mifflin Sound Insulation & Renovation Project for Historic Buildings, Philadelphia, PA
- Pease International Trade Port, Historical Residential Renovation Project, Portsmouth, NH
- Bradley Residential Sound Insulation Program Bradley International Airport, Hartford, CT

Diane Bryant Carter Principal-In-Charge

Education

Northeast Missouri State University, 1985-1988
Florida State University, 1984-1985

The Jones Payne Group, Inc.

2011 – Present

Diane Carter joined Jones Payne in 2011 as a Principal. Ms. Carter has specialized in airport noise and environmental issues and mitigation planning and program implementation for over 20 years. Her experience at both air carrier and general aviation airports provides a broad range of expertise in conducting specialized studies including Part 150 and implementation of recommended programs.

Ms. Carter focuses on the development and implementation of large-scale noise mitigation programs such as sound insulation of residential and public structures and voluntary land acquisition. She also has extensive experience in the design, installation, and implementation of noise and flight tracking systems and developing community and pilot relations programs. Additionally, she brings extensive experience in fostering communication with community groups and public agencies to develop an understanding of airport projects.

Her knowledge, skill, and experience have resulted in the successful development and implementation of several noise mitigation programs for large airports throughout the US. Able to work well with airport personnel and federal, state, and local officials, Ms. Carter manages communications on key project milestones to help clients and officials achieve the best available solutions for the program.

Ms. Carter also serves as the firm's Chief Operating Officer where she formulates and implements operational strategies to ensure that the firm operates successfully and efficiently with regard to its physical and personnel resource.

Prior Professional Experience

The Urban Group, Inc.

2009 – 2011

As project manager for the Fort Lauderdale-Hollywood International Airport noise mitigation program, Ms. Carter worked with Broward County to develop the Noise Mitigation Plan based on the recommendations of the Environmental Impact Statement for the Expansion of Runway 9R/27L. Her work on the noise mitigation program included the sound insulation of 1,700 residences, acquisition of two mobile home parks, and a sales assistance program for 857 residential units. Ms. Carter also worked with Broward County on a pilot program to determine the diminution, if any, in value to residential properties affected by the airport expansion program.

Rhode Island Airport Corporation

2000 – 2003

T. F. Green International Airport

While working for the Rhode Island Airport Corporation's T. F. Green International Airport (PVD) in Warwick, RI, Ms. Carter served as the airport noise program manager responsible for the development and implementation of the noise abatement and mitigation program for the airport. Her responsibilities included implementation of the noise mitigation program including the residential sound insulation program, securing FAA funding, sound insulation of two elementary schools, implementation of a voluntary acquisition and relocation program, and design and installation a state-mandated flight tracking system.

Honors / Associations

- American Association of Airport Executives
- Florida Airports Council

Relevant Projects

Sound Insulation Programs

- Fort Lauderdale-Hollywood International Airport, Noise Mitigation Program development and implementation
- Burlington (VT) International Airport's, Noise Mitigation Program.
- Baltimore-Washington International Airport, update of Community Outreach Program efforts
- T. F. Green Airport, Noise Mitigation Program development and implementation
- Boca Raton International Airport, Noise Mitigation Program development and implementation
- O'Hare International and Midway International Airports, Noise Monitoring System installation and implementation
- Palm Beach International Airport, Noise Mitigation Program development and implementation



STEVE HIGH
Engineering Inspector

Mr. Steve High joined the firm in 2008 and has more than 46 years of experience in land development, project management, roadway and utility construction inspection. He has managed daily construction activities relating to earthwork operations, asphalt paving, utility relocations, concrete placement and drainage pipe installation. His experience includes preparing daily inspection reports on all activities, job progression, personnel and equipment, as well as interfacing with contractors on behalf of clients and accountability for job site coordination. His current capacity of Senior Construction Inspector requires monitoring and inspection of all phases of construction work, as well as coordination with clients, contractors, public agencies, utilities and affected property owners. His experience includes project management and field engineering inspection experience for both public and private projects.



Years of Experience
46

Education
Broward College
Palm Beach College

Professional Registrations
FDEP Stormwater
Management Inspector
License #5696

Professional Certifications
Asphalt Paving
Technician Level 1

Earthwork Construction Inspection, Level 1

Concrete Field Technician, Level 1

ACI Concrete Field Testing Technician, Grade I

Troxler Nuclear Gauge

Final Estimates Level 1

FDOT Temporary Traffic Control - Advanced

Drilled Shaft Inspection

Auger Cast Pile Inspector's Course

IMSA Traffic Signals Level 1

10-Hour OSHA Safety Certification

RELEVANT PROJECT EXPERIENCE

Fort Lauderdale-Hollywood International Airport 10R/28L Runway Expansion Lead Design Team (FLL): (Sub-Consultant to Atkins): Mr. High was responsible for the civil utility construction inspections of the 24" water and 16" sewer transmission utility main relocations packages within the design efforts for the 8,000-foot south runway expansion project. His Duties also included checking material, installation observations, determination of quantities, daily logs, photos, safety reports, compliance with specifications and coordination with contractor personnel, to confirm site conditions as needed.

Florida's Turnpike Northbound Widening from Sunrise Boulevard to Atlantic Boulevard, Broward County, FL: As Senior Construction Inspector, Mr. High provided CEI support to Target Engineering, the CEI Prime Consultant. This interstate expansion project includes construction of an additional northbound lane and sound walls being built between Sunrise Boulevard (Exit 58) and Atlantic Boulevard (Exit 66). Project included right of way determination, recovery and establishment of project control and roadway cross sections as needed.

Fort Lauderdale-Hollywood International Airport Taxiway C West Reconstruction Project, Fort Lauderdale, FL: This project is a taxiway reconstruction approximately 2,600 feet long, from Taxiway Delta to the west end of 10L, which includes asphalt, earthwork, lighting, signage pavement markings and drainage. Mr. High provided CEI services checking material and installation observations, determination of quantities, compliance with specifications & coordination with contractor personnel.

Fort Lauderdale-Hollywood International Airport North Runway (10L/28R) Airfield Modification/High-Speed Exits (FLL), Fort Lauderdale, FL: This project included a number of critical construction projects and installation of several safety enhancement features including: constructing high-speed runway exits which will enhance the safety and capacity of the airport; installing runway status lights to advise pilots of potential runway conflicts; widening of taxiways at the east end of the runway; and relocating navigational aids. Mr. High's responsibilities included checking material, installation observations, determination of quantities, compliance with FAA specifications & coordination with contractor personnel.

Fort Lauderdale-Hollywood International Airport (FLL) FedEx North Runway Emergency Repair, Fort Lauderdale, FL: As a result of a DC10 FedEx incident that occurred on October 28, 2016, KEITH was tasked with developing a repair plan for several areas located on Runway 10L-28R and Taxiway "A4". Mr. High performed RPR services including performing site inspection and attending on-site meetings, reviewing material submittals and reviewing pay applications. This was completed under our General Engineering Services Contract.

Fort Lauderdale-Hollywood International Airport Runway 10L/28R PAPI Area Re-grading (FLL), Fort Lauderdale, FL: Under our General Engineering Services Contract, KEITH was tasked with managing the design and construction phase services for the North Runway PAPI Regrading between Taxiway "B5" and Taxiway "B6". Mr. High performed RPR services including reviewing material submittals, coordinating construction scheduling and MOT between the contract and BCAD, providing on-site representation and documentation of the work performed during construction and prepare a letter or recommendation confirming the grading was completed in accordance with the FAA Advisory Circular 150/5300-13A, Change 1 grading criteria.

Fort Lauderdale-Hollywood International Airport Runway 13/31 Rehabilitation Project, (FLL): Runway 13/31 Rehabilitation Project: This project included full-depth reconstruction of touchdown intersections at Taxiway "A" and Taxiway "C" and consists of milling and resurfacing at the North approach end of Runway 13/31 at Taxiway "C" and Taxiway "D" areas. Mr. High provided all CEI services, checking material with specifications & coordination with contractor personnel.

City of Dania Beach Fire/Rescue Facility Station 93, Dania Beach, FL: A 3.3 acre municipal public safety facility, Mr. High served as Senior Engineering Inspector for the construction of the City of Dania Beach Fire Station and Rescue Facility. Work included earthwork, water and sewer main installation, paving & drainage landscaping, irrigation, pavement markings, as well as off-site drainage and roadway improvements. Mr. High provided all CEI services including checking material, installation observations, determination of quantities, daily logs, safety reports, compliance with specifications and coordination with contractor personnel.

North Perimeter Road Widening Improvements, Fort Lauderdale, FL: Working as a sub-consultant to RS&H, KEITH provided construction administration and resident project representation (RPR) services for the widening of North Perimeter Road at the far East end and the at the "S" curve. Mr. High's responsibilities included review of the contractor's MOT and Safety Plan for compliance with FDOT standards, attending meetings, reviewing submittals, review pay requests and manage inspections, including progress and substantial completion inspections.

Sheltair Hangar Expansion Pompano Beach Air Park (PMP), Pompano Beach, FL: The Holland Sheltair Aviation Group leases 40.8 acres from the Pompano Beach Air Park. KEITH was retained by SheltAir to develop and process site plan drawings, perform civil engineering design for water, sewer, paving and drainage improvements, survey, subsurface utility locations, landscape architecture and to provide construction phase services for the site improvements to support the addition of office/hanger buildings approximately 96,100 SF of floor area on 19.6 acres of their leased property. Mr. High was responsible for all CEI inspections throughout construction and certification.

Lyons Road Median Improvements, Coconut Creek, FL: KEITH served as the construction engineering inspection and contract manager to the City of Coconut Creek Department for General Engineering Services Contract for this FDOT funded Local Agency Program (LAP) roadway improvement project. The firm served in the capacity of CEI Project Manager on behalf of the City to manage enhancements of a roadway median project along Lyons Road between Copans Road and Coconut Creek Parkway. The project included coordination with the City, the design engineer, FDOT and the site contractor. The team was directly responsible for all FDOT, LAP, EEO and Davis-Bacon Wage Rate Compliance monitoring and interviews.

NW 59th Court, Fort Lauderdale, FL: Mr. High was the Senior Engineering Inspector for this municipal roadway improvement project for the City of Fort Lauderdale that extended along NW 59th Court from Powerline Road to NW 6th Way. Mr. High served as Project Manager/ Inspector during this roadway construction and provided all CEI services checking material and installation observations, determination of quantities, compliance with specifications & coordination with contractor personnel. Daily reporting and logs were completed as well as certification packages for the respective governmental agency.



JOHN WEYMOUTH, PE
Construction Manager

Mr. Jonathan Weymouth has 28 years of experience in the planning, design, permitting and construction of heavy transportation, utility as well as all types of civil and environmental engineering projects. His work involves the supervision of engineering and technical personnel engaged in the design and construction of public and private sector improvements.

Past projects include major transportation infrastructure projects such as airports, bridges, highways and roadways. This is in addition to civil land development, recreational facilities and environmental mitigation projects. The design/permitting/construction experience that Mr. Weymouth brings to the team regarding key elements related to the Expansion of Runway 9L-27R Program at FLL will be highly valuable to BCAD. These elements include earthwork and embankments, stormwater management, concrete and asphalt pavements along with communication, potable water distribution and sanitary sewer collection systems. Additionally, he has extensive knowledge and effective experience coordinating with FEC, as well as with permitting and federal agencies such as FDOT and FAA. He is very familiar and fully qualified to implement and control the guidelines and requirements established by these agencies.

RELEVANT PROJECT EXPERIENCE

FLL's Airport Expansion Program III (AEP III) Terminal 4 (T4) Expansion: Mr. Weymouth serve as utility construction manager for the underground improvements associated with 1.6 billion dollar replacement of T4 - Concourse H and the airfield apron. Work included replacement, relocation and upgrade of the domestic water and new sanitary sewer systems serving the new T4 - Concourse G and the new transmission main around the perimeter of T4.

FLL's Terminal 2 & 3 Modernization Program: Mr. Weymouth serve as construction manager for the underground improvements designed by Keith that will be installed within the next year. Work will include limited domestic water distribution and sanitary sewer collection serving Concourses D, E & F. Mr. Weymouth will work closely, as he has in the past, to insure the construction follows BCWWS's details and standards

FLL's 9R/27L South Runway Expansion Project: As subconsultant to Atkins, Mr. Weymouth was the Resident Lead Design Representative (RLDR) for the design and construction of the new 8,000-foot South Runway, parallel Taxiway J and Crossfield Taxiways. This project required the coordination of multiple construction contracts along with other Broward County Aviation Department (BCAD) on-going airside construction projects, while maintaining an operational airfield. Duties and responsibilities included field observation during the construction, weekly observation reports to the Owner which addressed opinions of the construction conformance to the plans and specifications, facilitation of the reviews of shop drawings, Contractor's Requests for Information (RFI) and development of the Supplement Information (SI) to the Contractor. Also included was review of Contractor as-built plans to determine general adequacy in documenting field changes and assist each Engineer-of-Record with the final Record Drawings. The RLDR also reviewed Contractor pay requests, field changes, field directives, change orders and participated in conflict resolution, as well as reviewed daily inspection reports and test results. The three design-bid-build construction work packages totaled over \$325 million dollars of airfield new construction.

FLL's Concourse A and Apron Project: Design Project Manager for Broward County's design of 250,000-SF of terminal apron with hydrant fueling system and taxiways project. This project originally included a five-gate concourse totaling 121,000 SF with a 705-LF connector to



Years of Experience
28

Education
B.S. Architectural
Engineering, University
of Miami, 1990

*Professional
Registrations*
Professional Engineer,
State of Florida, #52802
(1998)

*Professional
Certifications*
10-Hour OSHA Safety
Certification

*Workzone Traffic
Control- Advance Level*

Terminal 1 and associated utilities. The contract was a 6-year project with an estimated construction cost of \$45 million dollars.

10R/28L Runway Expansion Design Team: Resident Lead Design Representative assisting the Program manager and Construction Project Management Team with support on all design aspects during the construction of the 8,000-foot runway expansion project. Additional responsibilities include assisting with the preparation of the Construction Management Plan for FAA approval and the Design Criteria Package for the Design/Build portion of the tunnel and bridge section over the FEC Railroad, US 1 and Interstate 595 entrance ramps. He is responsible for coordination of all RFI, submittals, airfield construction packages, inspections, punch lists and final inspections for construction acceptance.

FLL's Task II - Roadway Landscaping and Aesthetic Improvement Project: Design and Construction Project Manager for Broward County's Design/Bid/Build Contract, a 10-year project with an estimated construction cost of \$5.5 million dollars. The project provides landscaping and aesthetic improvements for the US-1 Right-of-Way from I-595 to Griffin Road. In addition, it included tree canopy mitigation for all of the Airport Expansion Program (AEP) projects. The landscaping and aesthetic improvements covered approximately 90 acres of Florida Department of Transportation (FDOT) Right-of-Way which provide a unique gateway into the Airport.

FLL's Taxiway C and Westside Infrastructure Project: Key technical support engineer for the permitting, construction management and close-out for the new 4,500-foot Taxiway C and connectors and Westside major utilities improvement project. The infrastructure improvements included the new FAA duct bank and re-alignment of Perimeter Road.

FLL's Task III - Exit Roadway Project: Design Project Manager FLL for Broward County's Design-Build Contract, an 8-year project with an estimated construction cost of \$75 million dollars. The Exit Roadways project involves the design and construction of the third phase of the upper and lower level roadway system. This project connects the eastern end of the upper and lower level roadways in front of Terminal 4 and direct traffic east to the Task 2 roadways leaving the airport completed in 2003. The project is temporarily on hold while the airport evaluates its airfield needs and the impact to this roadway system.

FLL's Task II - Terminal Access Roadway Project: Design and Construction Project Manager for Broward County's Design-Build Contract, a 5-year project with a construction cost of \$83 million dollars. The project created a 270-degree segmental bridge interchange within the FDOT right-of-way entering and exiting the airport. The interchange was constructed of embanked roadway, segmental bridges over US-1 and the Florida East Coast Railroad and concluded with five ASSHTO beam structures on the Broward County Aviation Department property. The design and construction included an extensive Stormwater Management Master Plan that modified the existing stormwater permit and master dewatering permit.

Additional responsibilities for the FLL \$1.6 Billion Airport Expansion Program included:

- Manage the design consultant during the development and preparation of the documents, plans, specifications for the proposed improvements.
- Review the design, permitting requirements and constructability of the proposed roadway and bridges.
- Coordinate designed improvements with the FDOT, Florida East Coast Railroad (FEC), Broward County and other State and Local permitting agencies.
- Work with permit agencies and consultants addressing environmental issues such as wetland impacts, mitigation and landfill disposal.
- Preparation of County documents for the bidding and award of the project, whether Design-Build Criteria (DBCP), a Construction Manager at Risk or Unit Price contract.
- Manage the construction contractor during the installation of the proposed improvements with the FDOT right-of-way or on the Broward County property.
- Coordinate construction improvement with FDOT, Broward County and other permitting agencies.





MORRIS SMITH

Construction Engineering Inspector



Ms. Morris Smith joined the firm in 2003 and has more than 20 years of experience in roadway and utility construction inspection. He has overseen daily construction activities relating to earthwork construction, asphalt paving, land surveying, utility relocations, concrete pours, and fuel line and drainage pipe installation. Mr. Smith's experience includes preparing daily inspection reports on all activities, job progression, personnel and equipment as well as interfacing with contractors on behalf of clients and accountability for job site coordination. His current capacity of Senior Construction Inspector requires monitoring and inspection of all phases of construction work, as well as coordination with clients, contractors, public agencies, utilities and affected property owners.

RELEVANT PROJECT EXPERIENCE

Fort Lauderdale-Hollywood International Airport Capital Improvement Projects, Fort Lauderdale, FL: Mr. Smith served as a Senior Construction Inspector under our subconsultant agreement with the General Engineering prime consultant for this ongoing contract. He provided various CEI functions for multiple construction projects such as:

- **Perimeter Road Improvements:** Inspected lane widening, guard rail installation, pavement markings and signage for Perimeter Road improvements.
- **Taxiway C West Reconstruction:** This project is a taxiway reconstruction approximately 2,600-feet long, from Taxiway Delta to the west end of 10L, which includes asphalt, earthwork, lighting, signage pavement markings, and drainage. Mr. Smith provided all CEI services checking material and installation observations, determination of quantities, compliance with specifications & coordination with contractor personnel.
- **North Runway (10L/28R) Airfield Modification / High-Speed Exits:** This project included a number of critical construction projects and installation of several safety enhancement features including: Constructing high-speed runway exits which will enhance the safety and capacity of the Airport; installing Runway Status Lights to advise pilots of potential runway conflicts; widening of taxiways at the east end of the runway; and relocating navigational aids. The work was accelerated by the Broward County Aviation Department and the construction was completed in 13 days early.
- **Taxiway C and C2 Interconnector:** This project included construction work related services for extending Taxiway C and C2 East End - Phase II and Repackaged Airfield Enhancements.
- **Runway 13/31 Rehabilitation Project:** This project included full depth reconstruction of touchdown intersections at Taxiway "A" and Taxiway "C" and consists of milling and resurfacing at the North approach end of Runway 13/31 at Taxiway "C" and Taxiway "D" areas. Mr. Smith provided all CEI services, checking material with specifications & coordination with contractor personnel.

Fort Lauderdale-Hollywood International Airport Expansion Program III (AEP3), Fort Lauderdale, FL: Mr. Smith served as a Senior Construction Inspector under our subconsultant agreement with the program management prime consultant for this ongoing project. He provided various CEI functions for multiple construction projects under the County's airport expansion program such as:

- **Terminal 4 Expansion:** Performed inspections on the new concrete apron and Taxiway "T" to facilitate 14 new gates, inspections included airfield lighting system, asphalt paving, concrete paving, drainage, sanitary sewer, forcemain and lift station installations, pavement markings.

Years of Experience
20

Education
B.S. Business
Administration, Florida
Memorial College,
Miami, 2000

*Professional
Certifications*
Asphalt Paving
Technician Level 1

*Earthwork Construction
Inspection, Level 1*

*Concrete Field
Technician, Level 1*

*ACI Concrete Field
Testing Technician,
Grade I*

Troxler Nuclear Gauge

Final Estimates Level 1

*FDOT Temporary Traffic
Control Intermediate*

*10-Hour OSHA Safety
Certification*

*FDOT Level II
Certification - pending*

- Taxiway C and Westside Infrastructure: This project is a new taxiway construction 5,000-feet long which includes earthwork, lighting, signage pavement markings, asphalt, drainage and utilities (water and sewer) relocations. Mr. Smith provided all CEI services checking material and installation observations, determination of quantities, compliance with specifications & coordination with contractor personnel.
- Terminal Access Roadway Interchange & Entrance Roadways: This project included the inspection of demolition, water distribution, system installation and testing, painting, lamping/video inspection and testing, shoulder and roadway construction milling and resurfacing, roadway and drainage system construction. Signage and pavement marking installation/application, curb/sidewalk construction.

Hillsboro Boulevard (S.R 810) Improvements, FL: Mr. Smith served as our Senior Inspector for this Streetscape and utility improvement project from US1 to A1A. Scope includes roadway milling, resurfacing, reconstruction, drainage improvements, box culvert rehabilitation, signalization, pavement markings/signage, landscape/ irrigation, streetscaping, lighting/electrical, burial of overhead utility lines, water main replacement, and other incidental construction activities. Mr. Smith was responsible for monitoring the construction activities, inspections and detail reporting of all phases of construction work.

Deerfield Beach Traffic Intersection Improvements, FL: Mr. Smith served as our Senior Inspector for these signalization upgrade and roadway improvement projects on two major intersections, including Century/Hillsboro Boulevard and Goolsby/Hillsboro Boulevard. Project was a LAP Agreement between the City of Deerfield Beach and FDOT for the installation of signalization mast arms and roadway intersection improvements. Mr. Smith was responsible for monitoring the construction activities, inspections and detail reporting of all phases of construction work.

Harbor Drive Improvements, Pompano Beach, FL: Mr. Smith served as our Senior Inspector for this roadway reconstruction project. KEITH provided complete Engineering Design and construction inspection, administration and certification for a 2-mile portion of NE 26th Avenue (Harbor Drive) from Atlantic Boulevard to NE 14th Street in the City of Pompano Beach. Under Mr. Smith's review, the project was completed two months ahead of schedule, with installation of over 30,000 LF of utilities including 6" to 36" force mains; a lift station, reclaimed water mains and new drainage infrastructure. Mr. Smith was responsible for monitoring, inspection and detail reporting of all phases of construction work.

Holmberg Road, Parkland, FL: (Parkside Drive East to US 441) Mr. Smith served as our Senior Inspector on this Project which was a LAP Agreement between the City of Parkland and FDOT for the 2-mile extension of pedestrian pathways on the north side of Holmberg Road. Work includes oversight of project inspector, weekly project status meetings, review of contractor pay applications, EEO Compliance documentation, Resident Compliance Specialist interviews, MOT and project coordination with contractor and City staff. Mr. Smith was responsible for monitoring the construction activities, inspections and detail reporting of all phases of construction work.

S.E. 8th Court Bridge Replacement, Pompano Beach, FL: Mr. Smith served as the Senior Inspector for this project that consisted of replacing an existing bridge along S.E. 8th Court, immediately east of S.E. 22nd Avenue. The bridge crosses over a leg of the Lake Santa Barbara waterway within the Santa Barbara Shores subdivision in the City of Pompano Beach. The project included complete design, permitting, bid assistance, coordinated structural engineering for the bridge design, and construction inspection for phased bridge and bulkhead rehabilitation/replacement. The S.E. 8th Court Bridge carries a two-lane roadway (one lane easy direction) which is the only means of ingress/egress to the residential island community. This project is very complex as the bridge serves as the only means of access to the island and required extensive coordination to ensure uninterrupted access and utility services throughout the construction. This necessitated the creation of a succinct phasing and detailed maintenance of traffic (MOT) plan, as well as significant coordination efforts with the City and the residents of the island. The project also includes complete and total restoration of the impacted irrigation, sod and landscape features to their original condition.





KEITH

MANUEL KUANG

Construction Quality Control Manager

Mr. Kuang has over 12 years of construction experience in project management, geotechnical engineering, civil and environmental engineering and testing / inspections. Involvement includes numerous projects for airport terminal, municipal, waterfront, sports complex, civil, roadways, runways, commercial development and residential housing. Mr.

Kuang is a team-oriented project manager with strong attention to detail, good communication skills, and understands the importance of follow through on tasks to meet Owner's goals and objectives.

Years of Experience
12

Education
B.S. Civil Engineering,
Florida International
University, 2006

*Professional
Certifications*
The U.S. Green Building
Council, South Florida
Chapter

RELEVANT PROJECT EXPERIENCE

Construction Project Management (CPM) for Terminal 4 Gate Replacement at Fort Lauderdale-Hollywood International Airport (FLL), Fort Lauderdale, FL: Currently part of a Construction Project Management (CPM) team as a consultant to Broward County Aviation Department (BCAD) and serving as a Quality Control Manager for Quality Assurance Materials Testing and as Assistant Construction Scheduler. The project includes construction of the western and eastern portion of International Terminal 4 building, including additional gates, concession, apron, security checkpoints, terminal connector pedestrian bridge and a five-story administration structure for BCAD and TSA with overall construction value of \$500M. Responsibilities have included: Review/interpreted plans & specifications for compliance with contractor's work; management of reports for compliance with contract documents; management of staff related to testing and inspections for quality assurance including scheduling and coordination (including nights and weekends); assured that all supervised personnel submit timesheet and daily reports for review; assisted in review of contractor schedule updates and invoices; attended weekly Owner Architect Contractor (OAC) meetings; administered submittals and reports for document control; assisted in drafting monthly progress schedule reporting.

CPM Services for Apron Modification & Hydrant Fueling Expansion at FLL, Fort Lauderdale, FL: Currently part of Construction Project Management (CPM) team as a consultant to Broward County Aviation Department (BCAD) and serving as a Quality Control Manager. The project includes new expansion of aircraft parking apron within the new International Terminal 4 construction including new sanitary force mains, underground fuel lines, drainage, water main, power and communication duct banks. Responsibilities have included: Review/interpreted plans & specifications for compliance with contractor work; management of reports for compliance with contract documents; management of staff related to testing and inspections for quality assurance including scheduling and coordination (including nights and weekends). Assure that all supervised personnel submit timesheet and daily reports for review. Assist in the preparation of invoices. Attend weekly meetings. Administer submittals and reports for document control.

Dolphin Stadium Expansion Project, Miami Gardens, FL: The project consisted of expansion of the stadium to include additional suites, recreation area and expanded seating. Served as a staff engineer with responsibilities including: Review/interpret plans & specifications; maintain construction contract documents; supervision and scheduling of inspection and laboratory testing and pre-construction meetings.

Miami Dade County Contract for Geotechnical Engineering and Testing Services, Miami-Dade County, FL: Served as a staff engineer for various projects including professional services for water plants, roadway construction, Port of Miami, parks and government buildings. Responsibilities included: utility locating; review of plans and specifications for contract compliance; review of request of proposals management of laboratory testing; and management of daily logs and inspection reports.



KEITH

MANUEL KUANG

Construction Quality Control Manager

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Years of Experience
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Education
B.S. Civil Engineering,
Florida International
University, 2006

*Professional
Certifications*
The U.S. Green Building
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ROBERT L. BETANCOURT, PE, LEED AP*President / Principal, Mechanical Engineer*

Robert is President at Gartek with over 30 years of design experience in Heating, Ventilation, Air Conditioning, Smoke Control, Plumbing and Fire Protection Systems. His extensive experience includes design of central chilled water plants, pre-conditioned air systems with thermal storage for parked aircraft, Indoor Air Quality design including odor and air contaminants control through ventilation, dilution, neutralization of building positive and negative charges and improved filtration systems, packaged air cooled and water cooled systems, split direct expansion and unitary systems; high velocity, high pressure duct systems; steam heating; energy conservation studies, life cycle analysis, automatic wet pipe fire protection systems, pre-action systems and foam deluge systems.

RESPONSIBILITIES

Mr. Betancourt serves as the firm overall coordinator and expeditor for mechanical projects. He is responsible for meeting with clients, attending presentations and supervises activities across the project design team. He is instrumental in developing mechanical designs, coordinates design progress with other system design disciplines internally, and coordinates design development with building architects and engineers from pre-design activities through 100% design submittals. He participates in mechanical construction administration and inspection services on a regular basis and is the Mechanical Engineer of Record. Robert is also involved in code compliance issues and review of other professionals' design to ensure quality control.

EXPERIENCE INCLUDES:

Broward County Aviation Department, Residential Sound Insulation Program, Ft. Lauderdale – Hollywood, FL. Provide noise mitigation to eligible residences while maintain neighborhood integrity (on-going).

Miami-Dade College North Campus Theater, Miami, FL. Project consisted of the renovations to an existing 480 seat theater.
St. Thomas Aquinas Auditorium, Fort Lauderdale, FL. New multi-purpose auditorium of approximately 20,000 SF

Overtown Lyric Theater, Miami, FL. Renovation and expansion of a historical building which originally opened in 1913 as a 400-seat theater. Renovation included a new stage and support area, lobbies and artist's dressing rooms. The expansion required the installation of new mechanical and electrical systems.

Stuart Lyric Theater, Stuart, FL. Adaptive re-use of a historical structure.

Little Haiti Cultural Campus and Theater, Miami, FL: A new cultural center which included a community building of approx. 12,000 SF and state of the art black box theater of approx. 18,300 SF.

**EDUCATION**

Bachelor's in mechanical engineering:
Florida International University

CERTIFICATIONS

Professional Engineer State of Florida PE # 34788
LEED Accredited Professional

MEMBERSHIPS

NFPA Member
(National Fire Protection Association)
ASHRAE Member
(American Society of Heating, Refrigerating and Air-Conditioning Engineers)

WORK EXPERIENCE

44 years
1990 - Present: Gartek Engineering

Athens Theater, Deland, FL. Renovation and expansion of a 500 seat Vaudeville and silent movie motion picture house which opened in 1922. The renovation and expansion included the adaptation of the interiors to include a new stage and support area, lobbies as well as dressing rooms for the artists and restoration of the theatre to represent its original appearance. Construction Costs: \$2.5 M

Gusman Center for the Performing Arts, Miami, FL. Complete restoration of this 1926 Historical Landmark Theater. Complete HVAC renovation including new central chilled water plant, replacement of all air handler units, replacement of existing electrical switchgear, and an increase to the electrical capacity for road shows as well as a new sound system.

Colony Theater, Miami Beach, FL. Expansion and renovation of the Colony Theater built in 1934. Improvements included various backstage improvements, principal and chorus dressing rooms, laundry rooms, as well as other functional spaces. New mechanical and electrical systems to support the improvements.

Florida Memorial College Theater for the Performing Arts, Miami, FL. Complete rebuild and expansion of existing facility with the exception of the auditorium seating which remained. New construction included stage and support area, lobby, dressing rooms, new mechanical and electrical systems and new Black Box Theater.

Wynmoor Theater, Coconut Creek, FL. Services included theatrical and housing lighting as well as ADA Upgrades.

Pineapple Grove Village, Delray Beach, FL. Multi-family residential development consisting of 24 townhouses, 136 apartment units and one-story clubhouse.

Cloisters on the Bay, Coconut Grove, FL. Enclave of 41 luxury villas in a bay front park setting.

Ballenises Country Club Clubhouse, Palm Beach Gardens, FL.

Mizner Tennis Center and Clubhouse, Palm Beach County, FL.

Abacoa Country Club Clubhouse, Jupiter, FL.

Miccosukee Indian Convention Center and Hotel, South FL.

Riviera Plaza Hotel, Miami Beach, FL. Adaptive re-use of historic Art-Deco Era Hotel to convert into 42-unit apartment building.

Inverrary Country Club Clubhouse, Fort Lauderdale, FL.

The Miami Beach Ocean Resort, Miami Beach, FL. Complete interior remodeling of 250 room hotel

Ritz Plaza Hotel, Miami Beach, FL. Complete rehabilitation of 130 room hotel

Quail Creek Country Club Clubhouse, Naples, FL.

The Ritz Carlton Gulf Club & Spa, Jupiter, FL. 100 Residence club units; Golf Clubhouse/Restaurant.

Coral Reef Yacht Club Marina, Coconut Grove, FL.

Belleview Biltmore Hotel & Resort, Clearwater, Florida. The Belleview Biltmore Hotel and Resort is a four and half stories frame, 244 rooms hotel built in 1897. Complete restoration, upgrades and new construction added to this historic site.

Forte Towers, South Beach, FL. Upgrade of Mechanical/Electrical systems, renovation of public spaces, and upgrade of Life Safety Systems for three, 16-story residential buildings.

The Soundings, Naples Florida. 38 condominium residential units in a 6-story structure.

The Sanctuary at Key Largo, FL. High-end condominium residences, 6 units per three-story building.

The Terraces, Miami Beach, FL. Five story, 45 units multi-family building.

New Hope Overtown, Miami, FL. A forty-unit development consisting of two-level detached single-family housing.

Beach Walk Condominiums, Vero Beach, FL. Three story, 30 units.

Surfside Palms Condominiums. City of Surfside, FL. Five story building 55 residential units.

MEL F. GARCIA, P.E., LEED AP*Vice President / Principal, Electrical Engineer*

Mr. Mel Garcia has over 40 years of experience in electrical design, including power and lighting. His experience also encompasses design of electronic systems including telephone, central clock, P.A., security and fire alarm systems. Mel has also been involved in code compliance issues and peer review to ensure quality control. Mr. Garcia participates in electrical construction administration and inspection services on a regular basis and is the Electrical Engineer of Record.

RESPONSIBILITIES

Mel serves as the firm overall coordinator and expeditor for electrical projects. He is responsible for meeting with clients, attending presentations and supervises activities across the project design team. He is instrumental in developing electrical designs, coordinates design progress with other system design disciplines internally, and coordinates design development with building architects and engineers from pre-design activities through 100% design submittals. He participates in electrical construction administration and inspection services on a regular basis and is the Electrical Engineer of Record. Robert is also involved in code compliance issues and review of other professionals' design to ensure quality control.

RELEVANT EXPERIENCE

Broward County Aviation Department, Residential Sound Insulation Program, Ft. Lauderdale Hollywood, FL. Provide noise mitigation to eligible residences while maintain neighborhood integrity (on-going).

St. Thomas Aquinas Auditorium, Fort Lauderdale, FL. New multi-purpose auditorium of approximately 20,000 SF **Gusman Center for the Performing Arts**, Miami, FL. Complete restoration of this 1926 Historical Landmark Theater. Complete HVAC renovation including new central chilled water plant, replacement of all air handler units, replacement of existing electrical switchgear, and an increase to the electrical capacity for road shows as well as a new sound system.

Overtown Lyric Theater, Miami, FL. Renovation and expansion of a historical building which originally opened in 1913 as a 400 seat theater. Renovation included a new stage and support area, lobbies and artist's dressing rooms. The expansion required the installation of new mechanical and electrical systems.

Florida Memorial College Theater for the Performing Arts, Miami, FL. Complete rebuild and expansion of existing facility with the exception of the auditorium seating which remained. New construction included stage and support area, lobby, dressing rooms, new mechanical and electrical systems and new Black Box Theater.

**EDUCATION:**

BS, Electrical Engineering– University of Miami, Coral Gables, Florida

CERTIFICATIONS:

Professional Engineer, State of Florida PE # 24221
 LEED Accredited Professional
 UBCI Inspector - 10.31.00
 American College of Forensic Examiners - #14892
 ICC
 Electrical Plans
 Examiner #050S
 ICC
 Commercial Electrical Inspector
 #5167634-E2
 Standard Plans Examiner State of Florida
 #PX2357
 Standard Inspector State of Florida
 #BN4735

WORK EXPERIENCE

45 years
 1980 - Present: Gartek Engineering

Little Haiti Cultural Campus and Theater, Miami, FL: A new cultural center which included a community building of approx. 12,000 SF and state of the art black box theater of approx. 18,300 SF.

Athens Theater, Deland, FL. Renovation and expansion of a 500 seat Vaudeville and silent movie motion picture house which opened in 1922. The renovation and expansion included the adaptation of the interiors to include a new stage and support area, lobbies as well as dressing rooms for the artists and restoration of the theatre to represent its original appearance.

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Stuart Lyric Theater, Stuart, FL. Adaptive re-use of a historical structure.

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Wynmoor Theater, Coconut Creek, FL. Services included theatrical and housing lighting as well as ADA Upgrades.

Pineapple Grove Village, Del Ray Beach, FL. Multi-family residential development consisting of 24 townhouses, 136 apartment units and one-story clubhouse.

Riviera Plaza Hotel, Miami Beach, FL. Adaptive re-use of historic Art-Deco Era Hotel to convert into 42-unit apartment building.

St. Boniface Gardens Catholic Housing, Pembroke Pines, FL. Ninety-six units, two buildings, assisted living facility; approx. cc \$5M.

Courtyard Gardens, Jupiter, FL. 66k sf., 70 units living facility plus full amenities. Approx. cc \$4.5M

New Hope Overtown, Miami, FL. A forty-unit development consisting of two level detached single family housing; approx. cc \$3M.

Cloisters on the Bay, Coconut Grove, FL. Enclave of 41 luxury villas in a bay front park setting.

St. Anne's Gardens Catholic Housing, South Dade, FL. Ninety units, two building, assisted living facility; approx. cc \$4.8M

Robert King High Towers, Miami, FL. New HVAC system for two, 3 level low income housing buildings; approx. cc \$1.2M.

The Miami Beach Ocean Resort, Miami Beach, FL. Complete interior remodeling of 250 room hotel

Ritz Plaza Hotel, Miami Beach, FL. Complete rehabilitation of 130 room hotel

The Sanctuary at Key Largo, FL High-end condominium residences, 6 units per three-story building.

Birches Apartments, Miami, FL Five buildings, two stories each, five units per floor with central laundry and recreation building. Approx \$3.1M

Inverrary Country Club Clubhouse, Fort Lauderdale, FL.

The Sanctuary, Key Largo, FL. High-end condominium residences, 6 units per three-story building.

Quail Creek Country Club Clubhouse, Naples, FL.

The Ritz Carlton Gulf Club & Spa, Jupiter, FL. 100 Residence club units; Golf Clubhouse/Restaurant.

Coral Reef Yacht Club Marina, Coconut Grove, FL.

Belleview Biltmore Hotel & Resort, Clearwater, FL. The Belleview Biltmore Hotel and Resort is a four

Fort Towers, South Beach, FL. Upgrade of Mechanical/Electrical systems, renovation of public spaces, and upgrade of Life Safety Systems for three, 16-story residential buildings.

The Soundings, Naples FL. 38 condominium residential units in a 6-story structure.

The Terraces, Miami Beach, FL. Five story, 45 units multi-family building.

Beach Walk Condominiums, Vero Beach, FL. Three story, 30 units.

PROFESSIONAL DISCIPLINES:

- Site Characterization
- Karst Geology
- Sinkhole Damage
- Hydrogeological Evaluations
- Environmental Site Assessments
- Litigation Support

EXPERIENCE: 36 years

EDUCATION:

Master of Science, Geology, 1983
University of Michigan

Bachelor of Science, Geology, 1980
University of Florida

BIO:

Mr. Ted Smith specializes in site characterizations and project reviews with an emphasis on Karst geology and sinkhole damage investigations, expert witness and litigation support, hydrogeological evaluations, contamination and environmental site assessments. Mr. Smith has over 30 years professional geological experience in environmental and engineering geology, as well as an extensive background in mining and mineral exploration. He has worked on a wide variety of environmental and geotechnical projects, including assessment and remediation of contaminated industrial facilities and geotechnical investigation of properties impacted by sinkhole and karst activity. Projects range from the geotechnical evaluations of hazardous elemental phosphorus tailings impoundments in Florida, Idaho, and Newfoundland to the closure of a phosphogypsum stack and chemical plant in central Florida, as well as extensive contamination assessments of various industrial facilities. Of particular note, Mr. Smith served as the technical consultant for the Veterans Expressway in Tampa, Florida from 1992 to 1996, when he managed the assessment and remediation of hazardous materials sites in the project right-of-way, including the assessment and closure of a former landfill.

REGISTRATIONS, LICENSES & CERTIFICATIONS

- Professional Geologist, Florida (No. 1368)
- Professional Geologist, Tennessee (No. 6048)
- Certified Professional Geologist (No. 9870)
- Florida Department of Financial Services Certified Neutral Evaluator
- Licensed Environmental Professional (No. 350)
- OSHA Hazardous Water Safety Training
- MSHA Mine Safety Training

ASSOCIATIONS

- American Institute of Professional Geologists
- National Ground Water Association
- Society of Economic Geologists

SELECTED PROJECT EXPERIENCE

Volunteer Expert In China (International Executive Service Corps)

Advised local government officials in Shandong and Shanxi Provinces on land subsidence problems and environmental issues associated with former coal, iron and clay mining sites. Provided advice and consultation regarding ground water contamination issues associated with former mine sites, as well as modern industry standards and practices for land restoration and reclamation, regulatory framework for mine design, and management of ground water resources.

Elemental Phosphorous Facility Closure

Senior Project Manager: Conducted a multi-year investigation of a former elemental phosphorus production facility involving evaluation of the extent of impacted ground water and surface water, as well as the resolution of multiple regulatory issues. Managed the design and construction of a slurry wall and cap system for final closure of the facility.

Hydrogeological Investigations (Various Clients, Florida)

Project Geologist: Conducted in-depth hydrogeological investigations for a wastewater reuse project at a citrus operation, a large residential development project, sand mine and processing plant, and a closed phosphorus production facility.

Veterans Expressway (Hillsborough County, Florida)

Project Manager: Managed project involving contamination and remediation issues on the Veterans Expressway in Tampa, Florida. Individual projects included contamination assessments at several petroleum-contaminated sites and a former un-permitted landfill, a wetlands restoration project, emergency response activities, petroleum storage tank closures and construction dewatering in contaminated areas.

Sinkhole and Karst Investigations (Various Insurance Clients, Florida)

Director and Senior Project Manager: Oversight of more than 3,000 sinkhole and karst investigations in Florida, including site evaluations and preparation of remedial plans for subsurface grouting and underpinning. Responsible for the financial performance of the technical services group, including profit and loss, budgeting, planning, and invoicing. Annual revenues exceeded \$6 million. Responsible for client development and management of client relations. Responsible for the management of over 25 geologists, scientists, and technicians. Developed investigation protocols and methods, reporting guidelines, and report formats. Prepared numerous technical presentations and professional papers. Serves as a Neutral Evaluator for the arbitration of sinkhole damage claims for the Florida Department of Financial Services.

PUBLICATIONS

Induced Sinkhole Formation Associated with Installation of a High-Pressure Natural Gas Pipeline, West-Central Florida, co-authored with George C. Sinn, Jr., P.E., Proceedings of the Thirteenth Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst, May 6-10, 2013, Carlsbad, New Mexico; National Cave and Karst Research Institute, Symposium 2

Scott Lake: The Formation and Investigation of a Large Sinkhole Occurrence in the Mantled Karst of West-Central Florida, co-authored with Carl W. Christmann, P.E., Proceedings of the Eleventh Multidisciplinary Conference on Sinkholes and the Engineering and Environmental Impacts of Karst, Geotechnical Special Publication No. 183, American Society of Civil Engineers, 2008

“The lake is gone!” The Scott Lake conundrum, co-authored with Richard M. Powers, presentation and abstract, American Institute of Professional Geologist 43rd Annual Meeting, St. Paul, Minnesota, September 2006.

Regulatory Agencies and Environmental Assessment, co-authored with J.S. Rogers and D.P.H. Tucker, in Florida Citrus: A Comprehensive Guide, University of Florida IFAS, SP-278, 2006.

Characteristics of Stable and Reactivated In-filled Paleo-Karst Features in West-Central, Florida, co-authored with Mark H. Horwitz, in Geotechnical Special Publication No. 122, American Society of Civil Engineers, 2003.

The Role of the Geological Engineering Consultant in Residential Sinkhole Damage Investigations; in Hydrogeology and Engineering Geology of Sinkholes and Karst - 1999, edited by B. Beck, A. Pettit, and J. Herring, A.A. Balkema, Rotterdam, 1999.

Sinkhole Damage Investigations for the Insurance Industry in West-Central Florida; in The Engineering Geology and Hydrogeology of Karst Terranes, edited by B. Beck and J. Stephenson, A.A. Balkema, Rotterdam, 1997.

Construction of a Four-Lane Highway Embankment Over a Contaminated Landfill; coauthored with L. D. Madrid, Proceedings of the 44th Annual Highway Geology Symposium, May 1993, Tampa, Florida, pp. 175-182.

Geology of the Richmond Hill Gold Deposit; co-authored with T.A. Duex and others, “Proceedings of the Third Western Regional Conference on Precious Metals, Coal, and Environment,” AIME, 1987, pp. 67-71.



PROFESSIONAL DISCIPLINES:

- Indoor Air Quality
- Asbestos
- Defective Corrosive Drywall
- Corporate Social Responsibility/Sustainability
- Industrial Hygiene
- Contamination Assessments and Remedial Action
- Litigation Support/Expert Witness
- Maritime Industrial Hygiene / EH&S
- Mold Assessment and Remediation

EXPERIENCE: 27 years

EDUCATION:

Master of Business Administration, June 2002
University of Baltimore, Baltimore, Maryland
Bachelor of Science Biology, August 1993
Florida International University, Miami, Florida

BIO:

Ms. Boyle has over twenty-seven (27) years of diverse environmental consulting and industrial hygiene experience spanning more than thirty states in the US as well as the Caribbean. Her niche is in successfully directing sensitive, complex, multi-disciplinary, and large-scale environmental and industrial hygiene projects. Her experience includes simultaneous senior project management of multi-million dollar environmental projects in three (3) states.

Ms. Boyle has provided environmental consulting to a variety of parties including domestic and foreign government officials, attorneys, insurance companies, lending institutions, architects, engineers, the construction industry, property asset managers, multi-national corporations, and regulatory agencies.

Ms. Boyle is the technical qualifier for AirQuest’s industrial hygiene and safety consulting services and she is the Chief Executive Officer responsible for all aspects of the business.

REGISTRATIONS, LICENSES & CERTIFICATIONS

- American Board of Industrial Hygiene, Certified Industrial Hygienist (#8561, Comprehensive Practice, July 2003)
- Board of Certified Safety Professionals, Certified Safety Professional (#23595, November 2012)
- Florida Asbestos Consultant (#AX-60, June 2005)
- Florida Mold Assessor (#MRSA-135, November 2010)
- OSHA Health and Safety Certified for Hazardous Waste Operations, 29 CRF 1910.120, 1994
- Asbestos Building Inspector: Accreditation under TSCA Title II/AHERA, 1995
- Asbestos Project Designer: Accreditation under TSCA Title II/AHERA, 2004
- Asbestos Management Planner: Accreditation under TSCA Title II/AHERA, 2004
- OSHA Certified Competent Person Class II Asbestos Abatement Supervisor, 29 C.F.R. part 1926.1101, 1998 only
- Mold Assessment & Remediation in Buildings, 2002
- Respiratory Protection, 2003

(The above course descriptions are for the original courses. If required, the requisite annual courses have been taken to maintain certifications unless noted.)

ASSOCIATIONS

- American Board of Industrial Hygiene, Subcommittee on Stewardship and Sustainability
- American Conference of Governmental Industrial Hygienists
- American Industrial Hygiene Association
- American Society of Testing Materials (ASTM) International, Subcommittee on Environmental Assessment (2003-2016)
- Board of Certified Safety Professionals
- National Association of Environmental Professionals, Member #11050 (1996-2009)
- Indoor Air Quality Association
- Women’s Business Enterprise National Council
- Women Impacting Public Policy, Subcommittee on Energy & the Environment (2009-2010)
- Beta Gamma Sigma, Member #837318

SELECTED PROJECT EXPERIENCE

Industrial Hygiene

Certified industrial hygienist responsible for the oversight of removal of lead contaminated soil at Patrick's Air Force Base. The project consisted of the demolition of an existing small arms firing range and excavation and disposal of lead contaminated soil. A Worker Protection and Exposure Monitoring Plan, Ambient Air Monitoring Plan and Confirmatory Sampling and Analysis Plan were developed prior to site activities. The demolition debris was sampled to determine if it was a characteristic hazardous waste. Initial and periodic personal air monitoring was conducted during remediation activities to assist in the evaluation of exposure levels and the selection of appropriate respiratory protection. Background samples were placed in the vicinity of excavation activities to evaluate the potential exposure to intermittent site visitors. Daily air monitoring was conducted for lead to evaluate if the remediation activities were within the EPA's National Ambient Air Quality Standards. Each soil pile was sampled for disposal purposes and confirmation soil samples were collected from the excavation to confirm that all lead impacted soils were removed from the site.

Asbestos Emergency Response, Surveys & Abatement Oversight

Provided senior project management to an emergency response to an asbestos release aboard a passenger cruise ship that was in dry-dock undergoing interior renovations. The logistics for the project included operating in a foreign country (Curacao, Netherland Antilles), coordinating and/or overseeing 100 asbestos abatement workers and asbestos consultants, foreign government officials, the vessel owner, the captain and crew of the vessel, the dry-dock owner's representatives and consultants from the Netherlands and working under intense time constraints. The asbestos abatement project was successfully completed within eleven (11) working days. Air monitoring and onboard asbestos consulting continued for an additional six (6) weeks while renovations to the ship were completed.

Contamination Assessment and Remedial Action

Prepared a Comprehensive Site Assessment for an airplane seat manufacturer in Winston-Salem, North Carolina. A soil gas survey was utilized as a cost effective technology to investigate the potential lateral extent of chlorinated solvents in the soils and groundwater at the thirty (30) acre facility. Potential receptors and migration pathways, contaminant source areas, and the horizontal and vertical extent of soil and groundwater contamination was investigated. The Comprehensive Site Assessment was prepared in accordance with North Carolina report preparation requirements. Chlorinated solvents were documented in the bedrock aquifer to a depth of over 140 feet and in a nearby stream. Remedial alternatives and a feasibility study were developed.

Phase I Environmental Assessments and Due Diligence Investigations

Performed and/or managed over 200 multi-disciplinary due diligence investigations (Phase I Environmental Assessments, Phase II Environmental Assessments, Transaction Screens, lead based paint surveys, radon surveys, asbestos surveys). Due diligence investigations conducted in accordance with the applicable ASTM Standard, client standard, certification requirements and/or exceeding industry standards.

Preparation of an extensive Phase I and Phase II Environmental Assessment to encompass approximately 54,000 acres of land utilized as a sugar farm. The Phase I Environmental Assessment included a current and historic aerial photograph and Sanborn Fire Insurance Map review in two counties, an aerial site reconnaissance, vehicle site reconnaissance, site and adjacent properties historical review, and several regulatory agency file reviews. A groundwater assessment was conducted for an area of the property historically used as a trash pit. Additionally, groundwater assessments were conducted in several areas of the site identified as environmental concerns during the Phase I Environmental Assessment.

PUBLICATIONS / PRESENTATIONS

Weaver, R., F.R. Baddour, T. Boyle and V. Rossinsky, Jr., "Removal of Chlorinated Solvents Using Soil Vapor Extraction and Groundwater Treatment Technologies", Proc. 94th Annual Conference and Exhibition Air & Waste Manage. Assoc. 2001, Orlando, FL, Paper No. 508.

Weaver, R., J. Als, F.R. Baddour, T. Boyle and V. Rossinsky, Jr., "Air Quality Management: A Tactical Approach", American Chamber of Commerce of Trinidad and Tobago, 5th Annual Safety, Health & Environmental Conference and Exhibition, 2001, Trinidad, West Indies.

Appendix C: Additional Required Information

Addendum Acknowledgement

E-Verify Affirmation

DBE Letters of Commitment and
Certifications

HMMH Sample Insurance Certificate

Vendor's Opportunity List Form
(including entire team)



City of Fort Lauderdale • Procurement Services Division
100 N. Andrews Avenue, 619 • Fort Lauderdale, Florida 33301
954-828-5933 Fax 954-828-5576
purchase@fortlauderdale.gov

RFQ No. 12355-106

**General Environmental Engineering Consulting Services
ADDENDUM NO. 1**

Issued: January 17, 2020

This addendum is being issued to make the following change(s):

REPLACE:

a. Bidsync page no. p.20

All other terms, conditions, and specifications remain unchanged.

Fausto Vargas

Procurement Specialist

Company Name: Harris Miller Miller & Hanson Inc.

(please print)

Bidder's Signature: Mary E. Eng

Date: 01/30/20

4.2.5 Approach to Scope of Work

Provide in concise narrative form, your understanding of the City's needs, goals and objectives as they relate to the project, and your overall approach to accomplishing the project. Give an overview on your proposed vision, ideas and methodology. Describe your proposed approach to the project. As part of the project approach, the firm shall propose a scheduling methodology (time line) for effectively managing and executing the work in the optimum time. Also provide information on your firm's current workload and how this project will fit into your workload. Describe available facilities, technological capabilities and other available resources you offer for the project.

4.2.6 References

Provide at least three references, preferably government agencies, for projects with similar scope as listed in this RFQ. Information shall include:

- Client Name, address, contact person telephone and FAX numbers and e-mail addresses.
- Description of work.
- Year the project was completed.
- Total cost of the construction; estimated and actual.
- Value engineering or value-added efforts.

Note: Do not simply include City of Fort Lauderdale work or staff as references to demonstrate your capabilities. The Committee is interested in work experience and references other than the City of Fort Lauderdale as well.

4.2.7 Required Forms (See Section 6)

a. Statement of Qualification Certification

Complete and attach the Statement of Qualification Certification provided herein in Section 6 - Required Forms

b. Non-Collusion Statement

This form is to be completed, if applicable, and inserted in this section.

c. Contract Payment Method

This form must be completed and returned with your SOQ. Proposers must presently have the ability to accept these credit cards or take whatever steps necessary to implement acceptance of a card before the start of the contract term, or contract award by the City.

d. Sample Insurance Certificate

Demonstrate your firm's ability to comply with insurance requirements. Provide a previous certificate or other evidence listing the Insurance Companies names for both Professional Liability and General Liability and the dollar amounts of the coverage.

e. Non-Discrimination Certification Form

E-VERIFY AFFIRMATION STATEMENT

RFP/Bid /Contract No: PNC2119437P1

Project Description: Environmental Planning and Acoustical Consulting Services

Contractor/Proposer/Bidder acknowledges and agrees to utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of,

- (a) all persons employed by Contractor/Proposer/Bidder to perform employment duties within Florida during the term of the Contract, and,
- (b) all persons (including subcontractors/vendors) assigned by Contractor/Proposer/Bidder to perform work pursuant to the Contract.

The Contractor/Proposer/Bidder acknowledges and agrees that use of the U.S. Department of Homeland Security's E-Verify System during the term of the Contract is a condition of the Contract.

Contractor/Proposer/ Bidder Company Name: Harris Miller Miller & Hanson Inc.

Authorized Company Person's Signature: 

Authorized Company Person's Title: President and CEO

Date: January 30, 2020

HMMH

700 District Avenue, Suite 800
Burlington, Massachusetts 01803
781.229.0707
www.hmmh.com

January 30, 2020

HMMH

700 District Avenue, Suite 800
Burlington, MA 01803

Subject: Letter of Commitment for Broward BCC Environmental Planning Consulting Services

Reference: HMMH Project Number P19-20049

To whom it may concern:

Harris Miller Miller & Hanson Inc. (HMMH) is pleased to confirm our commitment to work as a Disadvantaged Business Enterprise (DBE) on the above-referenced contract. As the prime consultant, HMMH will provide project management, acoustical, and environmental services for the contract.



HMMH is a certified Disadvantaged Business Enterprise (DBE). We plan to perform at least 35 percent of the project work that we would like to be counted towards meeting the DBE goal for the contract. Due to the open and on-call nature of this project, we are not able to determine a specific dollar amount for our work on this project.

HMMH qualifies as a small business and typically works under the North American Industry Classification System (NAICS) code 541620.

Sincerely yours,

Harris Miller Miller & Hanson Inc.

A handwritten signature in black ink that reads "Mary E. Eagan".

Mary Ellen Eagan
President and CEO

**Florida UCP DBE Directory
Vendor Profile**

As Of: 01/28/2020

Vendor Name: HARRIS MILLER MILLER & HANSON INC.

Certification: DBE

Former Name:

Business Description: ADMINISTRATIVE MANAGEMENT AND GENERAL MANAGEMENT CONSULTING SERVICES

Mailing Address:
77 SOUTH BEDFORD STREET
BURLINGTON, ME 01803-

Physical Address:
77 SOUTH BEDFORD STREET
BURLINGTON ME 01803-

District: County:

Website:

Contact Name: MARY ELLEN EAGAN
Contact Email: CWOZNIAK@HMMH.COM

Phone: (781) 229-0707

Fax: (781) 229-7939

Current DBE Certification: Certified Certifying Member: Greater Orlando Aviation Authority
ACDBE Status: N
Statewide Availability: N

Certified NAICS

541611 - Administrative Management and General Management Consulting Services
541614 - Process, Physical Distribution, and Logistics Consulting Services
541620 - Environmental Consulting Services
541690 - Other Scientific and Technical Consulting Services



MONTGOMERY
CONSULTING GROUP

PLANNING | ENVIRONMENTAL | ENGINEERING: TRANSPORTATION | AVIATION | INFRASTRUCTURE

January 3, 2020

Ms. Mary Ellen Eagan
President & CEO
HMMH
77 South Bedford Street
Burlington, MA 01803

Subject: **Letter of Commitment for Broward BCC Environmental Planning Consulting Services**
Reference: **HMMH Proposal Number P19-20049**

Dear Mary Ellen:

Montgomery Consulting Group, Inc. is pleased to confirm our commitment to work as a subconsultant partner to HMMH on the above-referenced contract. Montgomery Consulting Group, Inc. will provide planning, environmental, PQS support, and other professional services for the contract. We look forward to continuing our over 20-year relationship with HMMH and Broward County Aviation Department.

Montgomery Consulting Group, Inc. is a certified Disadvantaged Business Enterprise (DBE) by Florida Department of Transportation; and a Community Business Enterprise (CBE) from Broward County.

Yours truly,

Monty Gettys
President



OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT

Governmental Center Annex

115 S. Andrews Avenue, Room A680 • Fort Lauderdale, Florida 33301 • 954-357-6400 • FAX 954-357-5674

November 21, 2019

Mr. Monty Gettys
MONTGOMERY CONSULTING GROUP, INC.
3900 W. Commercial Blvd., Suite 227
Fort Lauderdale, Florida 33309

Dear Mr. Gettys:

The Broward County Office of Economic and Small Business Development (OESBD) is pleased to announce that your firm's **County Business Enterprise (CBE)** certification has been renewed.

Your firm's certification is continuing from your anniversary date but are contingent upon the firm verifying its eligibility annually through this office. You will be notified in advance of your obligation to continue eligibility in a timely fashion. However, the responsibility to ensure continued certification is yours. Failure to document your firm's continued eligibility for the CBE and SBE programs within **thirty (30) days** from your anniversary may result in the expiration of your firm's certifications. Should you continue to be interested in certification after it has expired, you will need to submit a new application, and all required supporting documentation for review.

To review current Broward County Government bid opportunities, visit: www.broward.org/Purchasing and click on "Current Solicitations and Results." Also, from this website, you can log into your firm's profile in BidSync to ensure you have added all appropriate classification codes. Bid opportunities over \$3,500 will be advertised to vendors via e-mail and according to classification codes, so please ensure that both the Purchasing Division and OESBD are apprised of your current e-mail address.

Your primary certification group is: **Licensed Professional Services**. This is also how your listing in our directory will read. You may access your firm's listing by visiting the Office of Economic and Small Business Development Directory, located on the internet at: www.broward.org/EconDev and click on "Certified Firm Directories."

Your firm may compete for, and perform work on Broward County projects in the following areas:

NAICS CODE: 541320; 541330; 541370; 541611; 541618; 541620; 561990

We look forward to working with you to achieve greater opportunities for your business through county procurement.

Sincerely,

A handwritten signature in black ink, appearing to read "Sandy-Michael McDonald", written over a horizontal line.

Sandy-Michael McDonald, Director
Office of Economic and Small Business Development

Cert Agency: BC-CBE
ANNIVERSARY DATE: October 30th

Florida UCP DBE Directory

Number of Records Returned: 1
 Selection Criteria:
 Vendor : MONTGOMERY CONSULTING GROUP INC

Vendor Name: MONTGOMERY CONSULTING GROUP INC
 DBE Certification: CERTIFIED MBE Certification: Certified
 DBA: Former Name:
 Business Description: PLANNING, ENVIRONMENTAL AND ENGINEERING FOR TRANSPORTATION, AVIATION AND INFRASTRUCTURE

Mailing AddressJ: 976 LAKE BALDWIN LANE
 STE 201
 ORLANDO, FL 32814-

Contact Name: MONTY GETTYS Phone: (407) 539-7030 Fax: (407) 539-7035
 Email: MONTY.GETTYS@MCGI-US.COM
 ACDBE Status: N
 Statewide Availability: Y

Certified NAICS

- 541320 Landscape Architectural Services
- 541330 Engineering Services
- 541340 Drafting Services
- 541511 Custom Computer Programming Services
- 541611 Administrative Management and General Management Consulting Services
- 541614 Process, Physical Distribution, and Logistics Consulting Services
- 541620 Environmental Consulting Services
- 541690 Other Scientific and Technical Consulting Services
- 541720 Research and Development in the Social Sciences and Humanities
- 541910 Marketing Research and Public Opinion Polling

NOTE: FDOT does not provide annual certification letters to its DBE firms. DBE certification status can be confirmed on the online FDOT DBE Directory - <http://www3b.dot.state.fl.us/EqualOpportunityOfficeBusinessDirectory/CustomSearch.aspx> - (This page allows a search by company name) or by calling FDOT DBE Certification Officer Victoria Smith at 850-414-4746.

Montgomery Consulting Group, Inc.

State of Florida

Woman Business Certification

Montgomery Consulting Group Inc

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

10/16/2019 10/16/2021



Jonathan R. Satter, Secretary
Florida Department of Management Services



Office of Supplier Diversity
4050 Esplanade Way, Suite 380
Tallahassee, FL 32399
850-487-0915
www.dms.myflorida.com/osd



Ron DeSantis, Governor

Halsey Beshears, Secretary



**STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION**

BOARD OF PROFESSIONAL ENGINEERS

THE ENGINEERING BUSINESS HEREIN IS AUTHORIZED UNDER THE
PROVISIONS OF CHAPTER 471, FLORIDA STATUTES

MONTGOMERY CONSULTING GROUP, INC.

976 LAKE BALDWIN LANE
SUITE 201
ORLANDO FL 32814

LICENSE NUMBER: CA28880

EXPIRATION DATE: FEBRUARY 28, 2021

Always verify licenses online at MyFloridaLicense.com



Do not alter this document in any form.

This is your license. It is unlawful for anyone other than the licensee to use this document.

January 24, 2020



HMMH

Mary Ellen Eagan
President & CEO
77 South Bedford Street
Burlington, MA 01803

Subject: Letter of Commitment for Broward BCC Environmental Planning Consulting Services
Reference: HMMH Proposal Number P19-20049

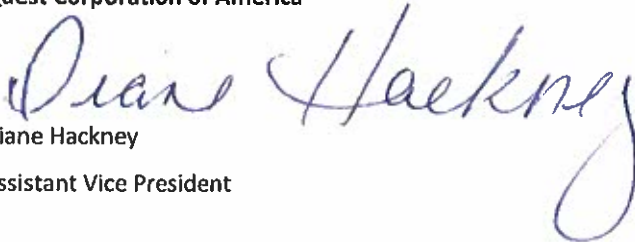
Dear Ms. Eagan:

Quest Corporation of America, Inc. (Quest) is pleased to confirm our commitment to work as a subconsultant partner to Harris Miller Miller & Hanson, Inc. on the above-referenced contract. Quest will provide public involvement services and graphics support for the contract.

Quest is a certified Disadvantaged Business Enterprise (DBE).

Sincerely yours,

Quest Corporation of America


Diane Hackney
Assistant Vice President

State of Florida

700 District Ave
8th Floor
Burlington, MA 01803
781.229.0707

Woman Business Certification

300 S Harbor Boulevard
Suite 516
Anaheim, CA 92805

Quest Corporation of America,

2250 Douglas
Boulevard, Suite 240
Roseville, CA 95661

~~WeWork Corp.~~ **is certified under the provisions of**
~~28705 and 295.107, Florida Statutes,~~ **for a period from:**

York, NY 10017

01/17/2018 to 01/17/2020
2201 Cooperative Way
Suite 600
Herndon, VA 20171

~~www.hmmh.com~~


Erin Flock, Secretary
Florida Department of Management Services



Office of Supplier Diversity • 4050 Esplanade Way, Suite 380 • Tallahassee, FL 32399 • 850-487-0915 • www.dms.myflorida.com/osd



GREATER ORLANDO
AVIATION AUTHORITY



JACKSONVILLE
TRANSPORTATION
AUTHORITY

Florida Unified Certification Program

Disadvantaged Business Enterprise (DBE)

Certificate of Eligibility

***QUEST CORPORATION OF AMERICA INC
MEETS THE REQUIREMENTS OF 49 CFR, PART 26***

APPROVED NAICS CODES:
541611, 51820

Samuel Fehres

Samuel Fehres (Sammy)
DBE & Small Business Development Manager
Florida Department of Transportation



Florida Department of Transportation Construction, Maintenance, & Other Contractual Services

Small Business Detail for: QUEST CORPORATION OF AMERICA,

**QUEST CORPORATION
OF AMERICA,
17220 Camelot Ct.**

**866-662-6273
diane.hackney@qcausa.com**

**Land O'Lakes, FL 34638 *DBE
Diane Hackney**

Activities or Specialty Areas: Other Activities Related to Real Estate , Certified Public Accountants , Other Computer Related Services , Computer Facilities Mgmt. Services , Administrative and General Management , Administrative & General Management , Human Resouces Consulting Services , Other Management Consulting Services , Energy Consultant Services , Economic Consultant Services , Public Relations Agencies/Services , Technical Services Related to CEI , Temporary Help Services , Prof. & Mgmt. Development Training Svcs. , Educational Support Services

Counties of Interest: Alachua , Baker , Bay , Bradford , Brevard , Broward , Calhoun , Charlotte , Citrus , Clay , Collier , Columbia , Dade , DeSoto , Dixie , Duval , Escambia , Flagler , Franklin , Gadsden , Gilchrist , Glades , Gulf , Hamilton , Hardee , Hendry , Hernando , Highlands , Holmes , Hillsborough , Indian River , Jackson , JEFFERSON , Lafayette , LAKE , LEE , LEON , Levy , LIBERTY , MADISON , Manatee , MARION , Martin , MONROE , Nassau , OKALOOSA , Okeechobee , ORANGE , OSCEOLA , PALM BEACH , Pasco , Pinellas , POLK , Putnam , SANTA ROSA , Sarasota , Seminole , St. Johns , St. Lucie , Sumter , Suwannee , Taylor , UNION , Volusia , WAKULLA



December 20, 2019

HMMH

Mary Ellen Eagan
President & CEO
77 South Bedford Street
Burlington, MA 01803

Subject: Letter of Commitment for Broward BCC Environmental Planning Consulting Services

Reference: HMMH Proposal Number P19-20049

Dear Ms. Eagan:

Gartek Engineering Corp is pleased to confirm our commitment to work as a subconsultant partner to Harris Miller Miller & Hanson, Inc. on the above-referenced contract. Gartek Engineering Corp will provide mechanical and electrical engineering services and construction oversight for the contract.

Gartek Engineering Corp is a certified Disadvantaged Business Enterprise (DBE).

Sincerely yours,

Gartek Engineering Corp

A handwritten signature in blue ink, appearing to read "Paula Riveros-Bitton".

Paula Riveros-Bitton

Director of Business Development



Florida Unified Certification Program

Disadvantaged Business Enterprise (DBE) Certificate of Eligibility

GARTEK ENGINEERING CORP

MEETS THE REQUIREMENTS OF 49 CFR, PART 26

APPROVED NAICS CODES:

541330

Samuel Febres

*Samuel (Sammy) Febres
DBE & Small Business Development Manager
Florida Department of Transportation*



December 31, 2019

HMMH

Mary Ellen Eagan
President & CEO
77 South Bedford Street
Burlington, MA 01803

Subject: Letter of Commitment for Broward BCC Environmental Planning Consulting Services

Reference: HMMH Proposal Number P19-20049

Dear Ms. Eagan:

AirQuest Environmental, Inc. ("AirQuest") is pleased to confirm our commitment to work as a subconsultant partner to Harris Miller Miller & Hanson, Inc. on the above-referenced contract. AirQuest will provide Environmental Site Investigation and Rehabilitation services for the contract.

AirQuest is a certified Disadvantaged Business Enterprise (DBE).

Sincerely yours,

AirQuest Environmental, Inc.



Traci-Anne Boyle, MBA, CIH, CSP

President



OFFICE OF ECONOMIC AND SMALL BUSINESS DEVELOPMENT

Governmental Center Annex

115 S. Andrews Avenue, Room A680 • Fort Lauderdale, Florida 33301

954-357-6400 • FAX 954-357-5674 • TTY 954-357-5664

September 19, 2019

**Ms. Traci-Anne Boyle
AIRQUEST ENVIRONMENTAL, INC.
6851 SW 45th Street
Davie, Florida 33314**

ANNIVERSARY DATE – Annually, on September 14th

Dear Ms. Boyle:

Broward County is pleased to announce AirQuest Environmental, Inc. has renewed its certification as a Disadvantaged Business Enterprise [DBE] in Florida, under a Unified Certification Program [UCP] in accordance with 49 CFR, PART 26.

DBE certification continues from your anniversary date but is contingent upon AirQuest Environmental, Inc., renewing its eligibility annually through this office, Office of Economic and Small Business Development (OESBD). OESBD will notify you in advance of your obligation to provide continuing eligibility documents; however, ensuring continued certification is your responsibility. Failure to continue your eligibility will result in immediate action to decertify AirQuest Environmental, Inc., as a DBE.

As long as AirQuest Environmental, Inc., is listed in the DBE Directory, it is considered DBE Certified by all Florida UCP Members.

DBE Certification is subject to actions by governmental agencies impacting the disadvantaged status of AirQuest Environmental, Inc.

AirQuest Environmental, Inc., will be listed in Florida's **UCP DBE Directory** which can be accessed via the internet, at:

<https://fdotxwp02.dot.state.fl.us/EqualOpportunityOfficeBusinessDirectory/CustomSearch>

DBE certification is **NOT** a guarantee of work, but enables AirQuest Environmental, Inc., to compete for, and perform, contract work on all USDOT Federal Aid (FAA, FTA and FHWA) projects in Florida as a DBE contractor, sub-contractor, consultant, and sub-consultant or material supplier.

Broward County Board of County Commissioners

Mark D. Bogen • Lamar P. Fisher • Beam Furr • Steve Geller • Dale V.C. Holness • Nan H. Rich • Tim Ryan • Barbara Sharief • Michael Udline
www.broward.org/econdev

Re: AirQuest Environmental, Inc.

September 19, 2019

If, at any time, there is a material change in AirQuest Environmental, Inc., including but not limited to, ownership, officers, directors, scope of work being performed, daily operations, affiliations with other businesses or individuals or physical location of AirQuest Environmental, Inc., you must notify OESBD, in writing, without delay. Notification should include supporting documentation. You will receive acknowledgement and confirmation of continued eligibility, if applicable after notification of changes.

AirQuest Environmental, Inc., may compete for, and perform, work on all USDOT Federal Aid projects throughout Florida, receiving DBE credit for work performed in the following areas:

NAICS CODES: 541350 Building Inspection Services
NAICS CODES: 541620 Environmental Consulting Services
NAICS CODES: 541690 Safety Consulting Services
NAICS CODES: 541990 Other Testing and Consulting Services
NAICS CODES: 562910 Abatement Activities (Including asbestos and lead)
NAICS CODES: 541611 Administrative Mgmt. and General Mgmt. Consulting Services
NAICS CODES: 561110 Office Administrative Services

Please feel free to contact OESBD for any questions or concerns pertaining to your DBE certification. Our telephone number is (954) 357-6400; our fax number is (954) 357-5674.

Sincerely,



Sandy-Michael McDonald, Director
Office of Economic and Small Business Development



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

5/10/2019

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

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


PRODUCER John McLaughlin Agy 828 Lynn Fells Pkwy Melrose MA 02176	CONTACT NAME: Monica Cecconi CISR AIAM AAI AAI-M	
	PHONE (A/C, No., Ext): 781-665-2775	FAX (A/C, No): 781-665-0295
E-MAIL ADDRESS: mceccconi@mclaughlinins.com		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A : Federal Insurance Company		
INSURER B : Chubb Group of Ins. Companies		20281
INSURER C : Travelers Prop. Cas. Co. of Am		25674
INSURER D :		
INSURER E :		
INSURER F :		

COVERAGES **CERTIFICATE NUMBER:** 1133012591 **REVISION NUMBER:**

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

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD / WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER		79492116ECE	5/15/2019	5/15/2020	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 Proj/Loc Agg \$ 50,000,000
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input checked="" type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY		(19)73562259	5/15/2019	5/15/2020	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$		79876309 ZUP-51M86485-18-NF	5/15/2019 5/15/2019	5/15/2020 5/15/2020	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 Excess \$ 10,000,000
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input type="checkbox"/> N/A				PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
B A	Professional Liab Valuable Papers & Equipment	N	68045150 79492116ECE	5/15/2019 5/15/2019	5/15/2020 5/15/2020	Professional Liab \$ 3,000,000 Valuable Papers Equipment Incl in BPP Blkt Incl in BPP Blkt

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

CERTIFICATE HOLDER Harris Miller Miller & Hanson 77 South Bedford St Burlington MA 01803	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE 

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CERTIFICATE OF LIABILITY INSURANCE

Acct#: 1936006

DATE (MM/DD/YYYY)

10/01/2019

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

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

PRODUCER Lockton Companies, LLC 3657 Briarpark Dr., Suite 700 Houston, TX 77042	CONTACT NAME: PHONE (A/C, No, Ext): 888-828-8365		FAX (A/C, No):
	E-MAIL ADDRESS:		
INSURER(S) AFFORDING COVERAGE			NAIC #
INSURER A : Indemnity Insurance Co. of North America			43575
INSURER B :			
INSURER C :			
INSURER D :			
INSURER E :			
INSURER F :			

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

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

INSR LTR	TYPE OF INSURANCE	ADD'L SUBR INSD ! WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER					EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS					COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	UMBRELLA LIAB <input type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$					EACH OCCURRENCE \$ AGGREGATE \$ \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N	N/A	X	C66698518	10/01/2019 10/01/2020 <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
 HARRIS MILLER MILLER & HANSON INC (3575800) IS INCLUDED AS A NAMED INSURED THROUGH ENDORSEMENT
 EVIDENCE OF INSURANCE
 WAIVER OF SUBROGATION IN FAVOR OF THE CERTIFICATE HOLDER WHEN REQUIRED BY WRITTEN CONTRACT

CERTIFICATE HOLDER

CANCELLATION

HARRIS MILLER MILLER & HANSON 77 SOUTH BEDFORD ST. BURLINGTON, MA 01803	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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VENDOR'S OPPORTUNITY LIST FORM

The completed form(s) should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

This solicitation consists of federally assisted funds and federal law requires Broward County to maintain a database of all firms that are participating or attempting to participate in federally assisted contracts, sponsored Department of Transportation (D.O.T.).

The form should include the Vendor's information, as well as any prospective subcontractor/subconsultant that the Vendor contacted or who contacted the Vendor regarding this solicitation.

Prime Vendor Information

- 1. Federal Tax ID Number:
04-2737079
- 2. Firm Name:
Harris Miller Miller & Hanson Inc.
- 3. Phone: 781-229-0707
- 4. Address:
700 District Avenue, Suite 800
Burlington, MA 01803
- 5. Year Firm Established: 1981
- 6. DBE Non-DBE
- 7. Type of work bid on:
Environmental and acoustical services

- 9. Annual Gross Receipts
 - Less than \$200,000
 - \$200,001 - \$500,000
 - \$500,001 - less than \$1 million
 - \$1 million - less than \$5 million
 - \$5 million - less than \$10 million
 - \$10 million - less than \$20 million
 - \$20 million - less than \$50 million
 - \$50 million - less than \$100 million
 - \$100 million - less than \$500 million
 - \$500 million - less than \$1 billion
 - Over \$1 billion

- 10. Ethnic Categories
 - B (Black American)
 - H (Hispanic American)
 - NA(Native American)
 - Subcont. Asian American
 - Asian Pacific American
 - Non- Minority Women
 - Other (i.e., not of any other group listed above)
- 11. Gender
 - Female
 - Male

Please be specific in regard to the type of work).

- 8. Contract Amount or Percentage
%): TBD or (\$):

(Continued)

Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>1. Federal Tax ID Number: 56-0885615</p> <p>2. Firm Name: Kimley-Horn and Associates, Inc</p> <hr/> <p>3. Phone: 954.535.5100</p> <p>4. Address: 600 North Pine Island Road, Suite 450 Plantation, FL 33324</p> <hr/> <p>5. Year Firm Established: 1967</p> <p>6. <input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input checked="" type="checkbox"/> Subconsultant</p> <p>8. Type of work bid on: Environmental planning, acoustical, site investigation and rehab. sustainability, on-call program management. (Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): or (\$): TBD</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input checked="" type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input checked="" type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input type="checkbox"/> Female</p> <p><input checked="" type="checkbox"/> Male</p>
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Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>1. Federal Tax ID Number: 59-2986466</p> <p>2. Firm Name: RS&H, Inc</p> <p>3. Phone: 904-256-2500</p> <p>4. Address: 10748 Deerwood Park Blvd S Jacksonville, FL 32256</p> <p>5. Year Firm Established: 1989</p> <p>3. <input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input type="checkbox"/> Subconsultant</p> <p>3. Type of work bid on: Environmental services</p> <p>Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): or (\$): TBD</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input checked="" type="checkbox"/> \$100 million - less than \$500 million</p> <p><input type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input type="checkbox"/> Female</p> <p><input type="checkbox"/> Male</p>
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Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>1. Federal Tax ID Number: 160770183</p> <p>2. Firm Name: McFarland-Johnson, Inc.</p> <p>3. Phone: (607) 723-9421</p> <p>4. Address: 49 Court Street, Suite 240 Binghamton, NY 13901</p> <p>5. Year Firm Established: 1946</p> <p>6. <input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input checked="" type="checkbox"/> Subconsultant</p> <p>8. Type of work bid on: Environmental Planning</p> <p>Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): TBD or (\$):</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input checked="" type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input type="checkbox"/> Female</p> <p><input type="checkbox"/> Male</p>
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Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>1. Federal Tax ID Number: 59-3026501</p> <p>2. Firm Name: Planning Technology, Inc.</p> <p>3. Phone: 727-572-5586 (102)</p> <p>4. Address: 2841 Executive Drive, Suite 200 Clearwater, FL 33762</p> <p>5. Year Firm Established: 1990</p> <p>6. <input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input checked="" type="checkbox"/> Subconsultant</p> <p>8. Type of work bid on: Environmental Consulting</p> <p>Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): or (\$): TBD</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input checked="" type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input checked="" type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input type="checkbox"/> Female</p> <p><input checked="" type="checkbox"/> Male</p>
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Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>1. Federal Tax ID Number: 59-3310365</p> <p>2. Firm Name: Montgomery Consulting Group, Inc.</p> <p>3. Phone: 954-735-7677</p> <p>4. Address: 3900 W. Commercial Blvd., Suite 227 Ft. Lauderdale, FL 33308</p> <p>5. Year Firm Established: 1995</p> <p>6. <input checked="" type="checkbox"/> DBE <input type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input checked="" type="checkbox"/> Subconsultant</p> <p>8. Type of work bid on: ANOMS, Land Use, NEPA, EAs, GIS</p> <p>Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): or (\$): TBD</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input checked="" type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input checked="" type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input checked="" type="checkbox"/> Female</p> <p><input type="checkbox"/> Male</p>
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Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

1. Federal Tax ID Number:	9. Subcontract Amount/Percentage	
59-3335186	(%) or (\$):	
2. Firm Name:	TBD	11. Ethnic Categories
Quest Corporation of America, Inc.	10. Annual Gross Receipts:	<input type="checkbox"/> Asian Pacific American
3. Phone:	<input type="checkbox"/> Less than \$200,000	<input type="checkbox"/> B (Black American)
866-662-6273	<input type="checkbox"/> \$200,001 - \$500,000	<input type="checkbox"/> H (Hispanic American)
4. Address:	<input type="checkbox"/> \$500,001 - less than \$1 million	<input type="checkbox"/> NA(Native American)
17220 Camelot Court	<input checked="" type="checkbox"/> \$1 million - less than \$5 million	<input checked="" type="checkbox"/> Non-Minority Women
Land O' Lakes, FL 34638	<input type="checkbox"/> \$5 million - less than \$10 million	<input type="checkbox"/> Subcont. Asian American
5. Year Firm Established: 1995	<input type="checkbox"/> \$10 million - less than \$20 million	<input type="checkbox"/> Other (i.e., not of any other group listed above)
3. <input checked="" type="checkbox"/> DBE <input type="checkbox"/> Non-DBE	<input type="checkbox"/> \$20 million - less than \$50 million	
7. <input type="checkbox"/> Subcontractor	<input type="checkbox"/> \$50 million - less than \$100 million	12. Gender
<input checked="" type="checkbox"/> Subconsultant	<input type="checkbox"/> \$100 million - less than \$500 million	<input checked="" type="checkbox"/> Female
3. Type of work bid on:	<input type="checkbox"/> \$500 million - less than \$1 billion	<input type="checkbox"/> Male
Public Involvement	<input type="checkbox"/> Over \$1 billion	
Please be specific in regard to the type of work).		

Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>1. Federal Tax ID Number: 04-3310710</p> <p>2. Firm Name: The Jones Payne Group, Inc.</p> <p>3. Phone: (617) 790-3747</p> <p>4. Address: 123 North Washington Street, 3rd Floor Boston, Massachusetts 02114</p> <p>5. Year Firm Established: 1996</p> <p>6. <input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input checked="" type="checkbox"/> Subconsultant</p> <p>8. Type of work bid on: Professional services related to noise mitigation implementation Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): or (\$): TBD</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input checked="" type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input type="checkbox"/> Female</p> <p><input type="checkbox"/> Male</p>
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<p>1. Federal Tax ID Number: 65-0806421</p> <p>2. Firm Name: Keith and Associates, Inc., dba KEITH</p> <p>3. Phone: 954-788-3400</p> <p>4. Address: 301 E. Atlantic Boulevard Pompano Beach, FL 33060</p> <p>5. Year Firm Established: 1998</p> <p>6. <input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input checked="" type="checkbox"/> Subconsultant</p> <p>8. Type of work bid on: Professional services related to noise mitigation implementation Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): TBD or (\$): TBD</p> <p>10. Annual Gross Receipts: <input type="checkbox"/> Less than \$200,000 <input type="checkbox"/> \$200,001 - \$500,000 <input type="checkbox"/> \$500,001 - less than \$1 million <input checked="" type="checkbox"/> \$1 million - less than \$5 million <input type="checkbox"/> \$5 million - less than \$10 million <input type="checkbox"/> \$10 million - less than \$20 million <input type="checkbox"/> \$20 million - less than \$50 million <input type="checkbox"/> \$50 million - less than \$100 million <input type="checkbox"/> \$100 million - less than \$500 million <input type="checkbox"/> \$500 million - less than \$1 billion <input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories <input type="checkbox"/> Asian Pacific American <input type="checkbox"/> B (Black American) <input type="checkbox"/> H (Hispanic American) <input type="checkbox"/> NA(Native American) <input checked="" type="checkbox"/> Non-Minority Women <input type="checkbox"/> Subcont. Asian American <input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender <input type="checkbox"/> Female <input type="checkbox"/> Male</p>
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Subcontractor/Subconsultant Information

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<p>1. Federal Tax ID Number: 59-2032388</p> <p>2. Firm Name: Gartek Engineering Corporation</p> <p>3. Phone: 305-266-8997</p> <p>4. Address: 7210 SW 39 Terrace Miami FL 33155</p> <p>5. Year Firm Established: 1980</p> <p>6. <input checked="" type="checkbox"/> DBE <input type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input type="checkbox"/> Subconsultant</p> <p>8. Type of work bid on: Professional services related to noise mitigation implementation Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): or (\$): TBD</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input checked="" type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input checked="" type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input type="checkbox"/> Female</p> <p><input checked="" type="checkbox"/> Male</p>
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Subcontractor/Subconsultant Information

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<p>1. Federal Tax ID Number: 05-0529142</p> <p>2. Firm Name: AirQuest Environmental, Inc.</p> <p>3. Phone: 954-792-4549</p> <p>4. Address: 6851 SW 45th Street Fort Lauderdale, FL 33314</p> <p>5. Year Firm Established: 2002</p> <p>3. <input checked="" type="checkbox"/> DBE <input type="checkbox"/> Non-DBE</p> <p>7. <input type="checkbox"/> Subcontractor <input type="checkbox"/> Subconsultant</p> <p>3. Type of work bid on: Environmental Site Investigation and Rehabilitation Services</p> <p>Please be specific in regard to the type of work).</p>	<p>9. Subcontract Amount/Percentage (%): or (\$): TBD</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input checked="" type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input checked="" type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input checked="" type="checkbox"/> Female</p> <p><input type="checkbox"/> Male</p>
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AFFILIATED ENTITIES OF THE PRINCIPAL(S) CERTIFICATION FORM

The completed form should be submitted with the solicitation response but must be submitted within three business days of County’s request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

- a. All Vendors are required to disclose the names and addresses of “affiliated entities” of the Vendor’s principal(s) over the last five (5) years (from the solicitation opening deadline) that have acted as a prime Vendor with the County.
- b. The County will review all affiliated entities of the Vendor’s principal(s) for contract performance evaluations and the compliance history with the County’s Small Business Program, including CBE, DBE and SBE goal attainment requirements. “Affiliated entities” of the principal(s) are those entities related to the Vendor by the sharing of stock or other means of control, including but not limited to a subsidiary, parent or sibling entity.
- c. The County will consider the contract performance evaluations and the compliance history of the affiliated entities of the Vendor’s principals in its review and determination of responsibility.

The Vendor hereby certifies that: (select one)

- No principal of the proposing Vendor has prior affiliations that meet the criteria defined as “Affiliated entities”
- Principal(s) listed below have prior affiliations that meet the criteria defined as “Affiliated entities”

Principal’s Name:

Names of Affiliated Entities:

Principal’s Name:

Names of Affiliated Entities:

Principal’s Name:

Names of Affiliated Entities:

Authorized Signature Name: **Mary Ellen Eagan**

Title: **President and CEO**

Vendor Name: **Harris Miller Miller & Hanson Inc.**

Date: **01/30/20**

Supplier: **Harris Miller Miller & Hanson Inc.**

AGREEMENT EXCEPTION FORM

The completed form(s) should be returned with the Vendor's submittal. If not provided with submittal, it shall be deemed an affirmation by the Vendor that it accepts the terms and conditions of the County's Agreement as disclosed in the solicitation.

The Vendor must either provide specific proposed alternative language on the form below. Additionally, a brief justification specifically addressing each provision to which an exception is taken should be provided.

- There are no exceptions to the terms and conditions of the County Agreement as referenced in the solicitation; or
- The following exceptions are disclosed below: (use additional forms as needed; separate each Article/ Section number)

Term or Condition Article / Section	Insert version of exception or specific proposed alternative language	Provide brief justification for change

Vendor Name: Harris Miller Miller & Hanson Inc.

Supplier: Harris Miller Miller & Hanson Inc.

Insurance Requirements: (Refer to the Insurance Requirement Form)

- A. The insurance requirement designated in the **Insurance Requirement Form** indicates the minimum coverage required for the scope of work, as determined by the Risk Management Division. Vendor shall provide verification of compliance such as a Certificate of Insurance, or a letter of verification from the Vendor's insurance agent/broker, which states the ability of the Vendor to meet the requirements upon award. The verification must be submitted within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes. Final award shall be subject to receipt and acceptance by the County of proof of meeting all insurance requirements of the bid.

- B. Without limiting any of the other obligations or liabilities of Vendor, Vendor shall provide, pay for, and maintain on a primary basis in force until all of its work to be performed under this Contract has been completed and accepted by County (or for such duration specified), at least the minimum insurance coverage and limits set forth in the Insurance Requirement Form under the following conditions listed below. If a limit or policy is not indicated on Insurance Requirement certificate by a checked box, it is not required as a condition of this contract.
 - 1. Commercial General Liability with minimum limits per occurrence, combined single limit for bodily injury and property damage, and when indicated a minimum limit per aggregate. County is to be expressly included as an Additional Insured in the name of Broward County arising out of operations performed for the County, by or on behalf of Vendor, or acts or omissions of Vendor in connection with general supervision of such operation. If Vendor uses a subcontractor, then Vendor shall require that subcontractor names County as an Additional Insured.

 - 2. Business Automobile Liability with minimum limits per occurrence, combined single limit for bodily injury and property damage. Scheduled autos shall be listed on Vendor's certificate of insurance. County is to be named as an additional insured in the name of Broward County.

Note: Insurance requirements for Automobile Liability are not applicable where delivery will be made by a third party carrier. All vendors that will be making deliveries in their own vehicles are required to provide proof of insurance for Automobile Liability and other pertinent coverages as indicated on the Insurance Requirement certificate, prior to award. If deliveries are being made by a third party carrier, other pertinent coverages listed on the Insurance Requirement certificate are still required.

Vendor should indicate how product is being delivered:

Vendor Name: **Harris Miller Miller & Hanson Inc.**

Company Vehicle: Yes or No

If Common Carrier (indicate carrier):

Other:

- 3. Workers' Compensation insurance to apply for all employees in compliance with Chapter 440, the "Workers' Compensation Law" of the State of Florida and all applicable federal

laws. The policy must include Employers' Liability with minimum limits each accident. If any operations are to be undertaken on or about navigable waters, coverage must be included for the U.S. Longshoremen & Harbor Workers Act and Jones Act.

4. Excess Liability/Umbrella Insurance may be used to satisfy the minimum liability limits required; however, the annual aggregate limit shall not be less than the highest "each occurrence" limit for the underlying liability policy. Vendor shall endorse County as an Additional Insured unless the policy provides coverage on a pure/true "Follow-form" basis.
5. Builder's Risk or equivalent coverage (such as Property Insurance or Installation Floater) is required as a condition precedent to the issuance of the Second Notice to Proceed for projects involving but not limited to: changes to a building's structural elements, work compromising the exterior of the building for any extended period of time, installation of a large single component, or remodeling where the cost of remodeling is 20% or more the value of the property. Coverage shall be, "All Risks" Completed Value form with a deductible not to exceed Ten Thousand Dollars (\$10,000.00) each claim for all perils except for wind and flood.
6. For the peril of wind, the Vendor shall maintain a deductible that is commercially feasible which does not exceed five percent (5%) of the value of the Contract price. Such Policy shall reflect Broward County as an additional loss payee.
7. For the peril of flood, coverage must be afforded for the lesser of the total insurable value of such buildings or structures, and the maximum amount of flood insurance coverage available under the National Flood Program. Vendor shall maintain a deductible that is commercially feasible and does not exceed five percent (5%) of the value of the Contract price. Such Policy shall reflect Broward County as an additional loss payee.
8. The County reserves the right to provide Property Insurance covering the Project, materials, equipment and supplies intended for specific installation in the Project while such materials, equipment and supplies are located at the Project site, in transit, or while temporarily located away from the Project site. This coverage will not cover any of the Vendor's or subcontractors' tools, equipment, machinery or provide any business interruption or time element coverage to the Vendor(s).
9. If the County decides to purchase Property Insurance or provide for coverage under its existing insurance policy for this Project, then the insurance required to be carried by the Vendor may be modified to account for the insurance being provided by the County. Such modification may also include execution of Waiver of Subrogation documentation.
10. In the event that a claim occurs for this Project and is made upon the County's insurance policy, for other than a windstorm, Vendor will pay at least Ten Thousand Dollars (\$10,000.00) of the deductible amount for such claim.
11. Waiver of Occupancy Clause or Warranty: Policy must be specifically endorsed to eliminate any "Occupancy Clause" or similar warranty or representation that the building (s), addition(s) or structure(s) in the course of construction shall not be occupied without specific endorsement of the policy. The Policy must be endorsed to provide that the Builder's Risk coverage will continue to apply until final acceptance by County.
12. Pollution Liability or Environmental Impairment Liability: including clean-up costs, with minimum limits per claim, subject to a maximum deductible per claim. Such policy shall remain in force for the minimum length of time indicated, include an annual policy aggregate and name Broward County as an Additional Insured. Vendor shall be responsible for all deductibles in the event of a claim.

13. Professional Liability Insurance with minimum limits for each claim, subject to a maximum deductible per claim. Such policy shall remain in force for the minimum length of time indicated. Vendor shall notify County in writing within thirty (30) days of any claim filed or made against its Professional Liability Insurance policy. Vendor shall be responsible for all deductibles in the event of a claim. The deductible shall be indicated on the Vendor's Certificate of Insurance.

- C. Coverage must be afforded on a form no more restrictive than the latest edition of the respective policy form as filed by the Insurance Services Office. If the initial insurance expires prior to the completion and acceptance of the Work, renewal certificates shall be furnished upon expiration. County reserves the right to obtain a certified copy of any insurance policy required by this Section within fifteen (15) calendar days of a written request by County.
- D. Notice of Cancellation and/or Restriction: the policy(ies) must be endorsed to provide Broward County with at least thirty (30) days' notice of cancellation and/or restriction.
- E. The official title of the Certificate Holder is Broward County. This official title shall be used in all insurance documentation.
- F. Broward County's Risk Management Division reserves the right, but not the obligation, to review and revise any insurance requirements at the time of contract renewal and/or any amendments, not limited to deductibles, limits, coverages and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work/specifications affecting the applicability of coverage.

Supplier: Harris Miller Miller & Hanson Inc.

LITIGATION HISTORY FORM

The completed form(s) should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

- There are no material cases for this Vendor; or
 Material Case(s) are disclosed below:

Is this for a: (check type) <input type="checkbox"/> Parent, <input type="checkbox"/> Subsidiary, or <input type="checkbox"/> Predecessor Firm? Party	If Yes, name of Parent/Subsidiary/Predecessor:
	Or No <input type="checkbox"/>
Case Number, Name, and Date Filed	
Name of Court or other tribunal	
Type of Case	Bankruptcy <input type="checkbox"/> Civil <input type="checkbox"/> Criminal <input type="checkbox"/> Administrative/Regulatory <input type="checkbox"/>
Claim or Cause of Action and Brief description of each Count	
Brief description of the Subject Matter and Project Involved	
Disposition of Case (Attach copy of any applicable Judgment, Settlement Agreement and Satisfaction of Judgment.)	Pending <input type="checkbox"/> Settled <input type="checkbox"/> Dismissed <input type="checkbox"/> Judgment Vendor's Favor <input type="checkbox"/> Judgment Against Vendor <input type="checkbox"/> If Judgment Against, is Judgment Satisfied? <input type="checkbox"/> Yes <input type="checkbox"/> No
Opposing Counsel	Name: Email: Telephone Number:

Vendor Name: Harris Miller Miller & Hanson Inc.

Supplier: Harris Miller Miller & Hanson Inc.

LOBBYIST REGISTRATION REQUIREMENT CERTIFICATION FORM

The completed form should be submitted with the solicitation response but must be submitted within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

The Vendor certifies that it understands if it has retained a lobbyist(s) to lobby in connection with a competitive solicitation, it shall be deemed non-responsive unless the firm, in responding to the competitive solicitation, certifies that each lobbyist retained has timely filed the registration or amended registration required under Broward County Lobbyist Registration Act, Section 1-262, Broward County Code of Ordinances; and it understands that if, after awarding a contract in connection with the solicitation, the County learns that the certification was erroneous, and upon investigation determines that the error was willful or intentional on the part of the Vendor, the County may, on that basis, exercise any contractual right to terminate the contract for convenience.

The Vendor hereby certifies that: (select one)

- It has not retained a lobbyist(s) to lobby in connection with this competitive solicitation; however, if retained after the solicitation, the County will be notified.
- It has retained a lobbyist(s) to lobby in connection with this competitive solicitation and certified that each lobbyist retained has timely filed the registration or amended registration required under Broward County Lobbyist Registration Act, Section 1-262, Broward County Code of Ordinances.

It is a requirement of this solicitation that the names of any and all lobbyists retained to lobby in connection with this solicitation be listed below:

Name of Lobbyist:
 Lobbyist's Firm:
 Phone:
 E-mail:

Name of Lobbyist:
 Lobbyist's Firm:
 Phone:
 E-mail:

Authorized Signature/Name: Mary Ellen Eagan Date: 01/30/20

Title: President and CEO

Vendor Name: Harris Miller Miller & Hanson Inc.

Supplier: **Harris Miller Miller & Hanson Inc.**

RFP-RFQ-RLI LOCATION ATTESTATION FORM (EVALUATION CRITERIA)

The completed and signed form and supporting information (if applicable, for Joint Ventures) should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Failure to timely submit this form and supporting information may affect the Vendor's evaluation. Provided information is subject to verification by the County.

A Vendor's principal place of business location (also known as the nerve center) within Broward County is considered in accordance with Evaluation Criteria. The County's definition of a principal place of business is:

1. As defined by the Broward County Local Preference Ordinance, "Principal place of business means the nerve center or center of overall direction, control and coordination of the activities of the bidder [Vendor]. If the bidder has only one (1) business location, such business location shall be considered its principal place of business."
2. A principal place of business refers to the place where a corporation's officers direct, control, and coordinate the corporation's day-to-day activities. It is the corporation's 'nerve center' and in practice it should normally be the place where the corporation maintains its headquarters; provided that the headquarters is the actual center of direction, control, and coordination, i.e., the 'nerve center', and not simply an office where the corporation holds its board meetings (for example, attended by directors and officers who have traveled there for the occasion).

The Vendor's principal place of business in Broward County shall be the Vendor's "Principal Address" as indicated with the Florida Department of State Division of Corporations, for at least six months prior to the solicitation's due date.

Check one of the following:

- The Vendor certifies that it has a principal place of business location (also known as the nerve center) within Broward County, as documented in Florida Department of State Division of Corporations (Sunbiz), and attests to the following statements:

1. Vendor's address listed in its submittal is its principal place of business as defined by Broward County;
2. Vendor's "Principal Address" listed with the Florida Department of State Division of Corporations is the same as the address listed in its submittal and the address was listed for at least six months prior to the solicitation's opening date. A copy of Florida Department of State Division of Corporations (Sunbiz) is attached as verification.
3. Vendor must be located at the listed "nerve center" address ("Principal Address") for at least six (6) months prior to the solicitation's opening date;
4. Vendor has not merged with another firm within the last six months that is not headquartered in Broward County and is not a wholly owned subsidiary or a holding company of another firm that is not headquartered in Broward County;
5. If awarded a contract, it is the intent of the Vendor to remain at the referenced address for the duration of the contract term, including any renewals, extensions or any approved

interim contracts for the services provided under this contract; and

6. The Vendor understands that if after contract award, the County learns that the attestation was erroneous, and upon investigation determines that the error was willful or intentional on the part of the Vendor, the County may, on that basis exercise any contractual right to terminate the contract. Further any misleading, inaccurate, false information or documentation submitted by any party affiliated with this procurement may lead to suspension and/or debarment from doing business with Broward County as outlined in the Procurement Code, Section 21.119.

If the Vendor is submitting a response as a Joint Venture, the following information is required to be submitted:

- a. Name of the Joint Venture Partnership
- b. Percentage of Equity for all Joint Venture Partners
- c. A copy of the executed Agreement(s) between the Joint Venture Partners

Vendor does not have a principal place of business location (also known as the nerve center) within Broward County.

Vendor Information:

Vendor Name: **Harris Miller Miller & Hanson Inc.**

Vendor's address listed in its submittal is:

700 District Avenue, Suite 800, Burlington, MA 01803

The signature below must be by an individual authorized to bind the Vendor. The signature below is an attestation that all information listed above and provided to Broward County is true and accurate.

Mary Ellen Eagan	President and CEO	Harris Miller Miller & Hanson Inc.	01/30/20
Authorized Signature/Name	Title	Vendor Name	Date

Security Requirements – Aviation Department

- A. Consultant/contractor agrees to observe all security requirements and other requirements of the Federal Aviation Regulations applicable to Consultant/contractor, including without limitation, all regulations of the United States Department of Transportation, the Federal Aviation Administration and the Transportation Security Administration, and the Consultant/contractor agrees to comply with the County's Airport Security Program and the Air Operations area (AOA) Vehicle Access Program, and amendments thereto, and to comply with such other rules and regulations as may be reasonably prescribed by the County, and to take such steps as may be necessary or directed by the County to insure that sub lessees, employees, invitees and guests observe these requirements. If required by the Aviation Department, Consultant/contractor shall conduct background checks of its employees in accordance with applicable Federal regulations.
- B. If as a result of the acts or omissions of Consultant/contractor, its sub lessees, employees, invitees or guests, the County incurs any fines and/or penalties imposed by any governmental agency, including without limitation, the United States Department of Transportation, the Federal Aviation Administration or the Transportation Security Administration, or any expense in enforcing any federal regulations, including without limitation, airport security regulations, or the rules or regulations of the County, and/or any expense in enforcing the County's Airport Security Program, then consultant/contractor agrees to pay and/or reimburse the County all such costs and expenses, including all costs of administrative proceedings, court costs, and attorneys' fees and all costs incurred by County in enforcing this provision. Consultant/contractor further agrees to rectify any security deficiency or other deficiency as may be determined as such by the County or the United States Department of Transportation, Federal Aviation Administration, the Transportation Security Administration, or any other federal agency. In the event consultant/contractor fails to remedy any such deficiency, the County may do so at the cost and expense of consultant/contractor. The County reserves the right to take whatever action is necessary to rectify any security deficiency or other deficiency.
- C. Operation of Vehicles on the AOA: Before the consultant/contractor shall permit any employee of consultant/contractor or any sub consultant/subcontractor to operate a motor vehicle of any kind or type on the AOA (and unless escorted by an Aviation Department approved escort), the consultant/contractor shall ensure that all such vehicle operators possess current, valid, and appropriate Florida driver's licenses. In addition, any motor vehicles and equipment of consultant/contractor or of any sub consultant/subcontractor operating on the AOA must have an appropriate vehicle identification permit issued by the Aviation Department, which identification must be displayed as required by the Aviation Department.
- D. Consent to Search/Inspection: The consultant/contractor agrees that its vehicles, cargo, goods, and other personal property are subject to being inspected and searched when attempting to enter or leave and while on the AOA. The consultant/contractor further agrees on behalf of itself and its sub consultant /subcontractors that it shall not authorize any employee or other person to enter the AOA unless and until such employee other person has executed a written consent-to-search/inspection form acceptable to the Aviation Department. Consultant/contractor acknowledges and understands that the forgoing requirements are for the protection of users of the Airport and are intended to reduce incidents of cargo tampering, aircraft sabotage, thefts and other unlawful activities at the Airport. For this reason, consultant/contractor agrees that persons not executing such consent-to-search/inspection form shall not be employed by the consultant/contractor or by any sub consultant/contractor at the Airport in any position requiring access to the AOA or allowed entry to the AOA by the consultant/contractor or by any sub consultant/contractors.
- E. The provisions hereof shall survive the expiration or any other termination of this contract.



Finance and Administrative Services Department
PURCHASING DIVISION

115 S. Andrews Avenue, Room 212 • Fort Lauderdale, Florida 33301 • 954-357-6066 • FAX 954-357-8535

Summary of Vendor Rights Regarding Broward County Competitive Solicitations

The purpose of this document is to provide vendors with a summary of their rights to object to or protest a proposed award or recommended ranking of vendors in connection with Broward County competitive solicitations. These rights are fully set forth in the Broward County Procurement Code, which is available here: <https://www.broward.org/purchasing>.

1. Right to Object

The right to object is available for solicitations conducted through Requests for Proposals ("RFPs") or Requests for Letters of Interest ("RLIs"). In such solicitations, vendors may object in writing to a proposed recommendation of ranking made by a Selection or Evaluation Committee. Objections must be filed within three (3) business days after the proposed recommendation is posted on the Purchasing Division's website. The contents of an objection must comply with the requirements set forth in Section 21.84 of the Procurement Code. Failure to timely and fully meet any requirement will result in a loss of the right to object.

2. Right to Protest

The right to protest is available for RFPs and RLIs and in solicitations conducted through Invitations to Bid ("ITBs"). In RFPs and RLIs, vendors may protest a final recommendation of ranking made by a Selection or Evaluation Committee. In ITBs, vendors may protest a final recommendation for award made by the Broward County Purchasing Division.

In all cases, protests must be filed in writing within three (3) or five (5) business days after a recommended ranking or recommendation for award is posted on Purchasing Division's website. The timeframe for filing (*i.e.*, 3 or 5 business days) depends on the monetary value of the procurement. Additional requirements for a protest are set forth in Section 21.118 of the Procurement Code. Failure to timely and fully meet any requirement will result in a loss of protest rights.

Vendors may appeal the denial of a protest. Appeals may require payment of an appeal bond. Additional requirements for an appeal are set forth in Section 21.120 of the Procurement Code. Failure to timely and fully meet any requirement will result in a loss of appeal rights.

3. Cone of Silence; Right to Contact OESBD

Please be aware that a Cone of Silence remains in effect for competitive solicitations until a solicitation is completed or a contract is awarded. During that time period, vendors may not contact certain County officials and employees regarding a solicitation. Substantial penalties may result from even an unintentional violation. For further information, please contact the Purchasing Division at 954-357-6066 or refer to the Cone of Silence Ordinance which is available here: <https://www.broward.org/Purchasing/Documents/ConeOfSilence.pdf>.

However, vendors may communicate with a representative of the Office of Economic and Small Business Development ("OESBD") at any time regarding a solicitation or regarding participation of Small Business Enterprises or County Business Enterprises in a solicitation. OESBD may be contacted at (954) 357-6400. The Cone of Silence also permits communication with certain other County employees (please see the Cone of Silence Ordinance at the above link for further details).

VENDOR'S OPPORTUNITY LIST FORM

The completed form(s) should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Vendor may be deemed non-responsive for failure to fully comply within stated timeframes.

This solicitation consists of federally assisted funds and federal law requires Broward County to maintain a database of all firms that are participating or attempting to participate in federally assisted contracts, sponsored Department of Transportation (D.O.T.).

The form should include the Vendor's information, as well as any prospective subcontractor/subconsultant that the Vendor contacted or who contacted the Vendor regarding this solicitation.

Prime Vendor Information

Federal Tax ID Number:
-2737079
Firm Name:
Harris Miller Miller & Hanson Inc.

Phone:
-229-0707
Address:
**10 District Avenue, Suite 800
Burlington, MA 01803**

Year Firm Established: **1981**

DBE Non-DBE

Type of work bid on:
Environmental and acoustical services

Please be specific in regard to
the type of work).
Contract Amount or Percentage

or (\$): **TBD**

9. Annual Gross Receipts

- Less than \$200,000
- \$200,001 - \$500,000
- \$500,001 - less than \$1 million
- \$1 million - less than \$5 million
- \$5 million - less than \$10 million
- \$10 million - less than \$20 million
- \$20 million - less than \$50 million
- \$50 million - less than \$100 million
- \$100 million - less than \$500 million
- \$500 million - less than \$1 billion
- Over \$1 billion

10. Ethnic Categories

- B (Black American)
- H (Hispanic American)
- NA(Native American)
- Subcont. Asian American
- Asian Pacific American
- Non- Minority Women
- Other (i.e., not of any other group listed above)

11. Gender

- Female
- Male

(Continued)

Subcontractor/Subconsultant Information

Provide this information for any subcontractor/subconsultant who provided the Prime Vendor with a bid/quote/proposal to perform work on the project; or any subcontractor/subconsultant solicited by the Prime Vendor to provide a bid/quote/proposal. Provide additional forms for Subcontractor /Subconsultant Information as needed.

<p>Federal Tax ID Number: -0885615</p> <p>Firm Name: Wiley Horn and Associates, Inc.</p> <p>Phone: -535-5100</p> <p>Address: 10 North Pine Island Road, Suite 450 Plantation, FL 33324</p> <p>Year Firm Established: 1967</p> <p><input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE</p> <p><input type="checkbox"/> Subcontractor</p> <p><input checked="" type="checkbox"/> Subconsultant</p> <p>Type of work bid on: Environmental planning, acoustical, site investigation and rehab, sustainability, on-call program management</p> <p>Please be specific in regard to the type of work.</p>	<p>9. Subcontract Amount/Percentage (%):or (\$):TBD</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input type="checkbox"/> \$100 million - less than \$500 million</p> <p><input checked="" type="checkbox"/> \$500 million - less than \$1 billion</p> <p><input type="checkbox"/> Over \$1 billion</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input checked="" type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input type="checkbox"/> Female</p> <p><input checked="" type="checkbox"/> Male</p>
<p>Federal Tax ID Number: -2986466</p> <p>Firm Name: W&H, Inc</p> <p>Phone: 904-256-2500</p> <p>Address: 1748 Deerwood Park Blvd. S Jacksonville, FL 32256</p> <p>Year Firm Established: 1989</p> <p><input type="checkbox"/> DBE <input checked="" type="checkbox"/> Non-DBE</p> <p><input type="checkbox"/> Subcontractor</p> <p><input checked="" type="checkbox"/> Subconsultant</p>	<p>9. Subcontract Amount/Percentage (%):or (\$):TBD</p> <p>10. Annual Gross Receipts:</p> <p><input type="checkbox"/> Less than \$200,000</p> <p><input type="checkbox"/> \$200,001 - \$500,000</p> <p><input type="checkbox"/> \$500,001 - less than \$1 million</p> <p><input type="checkbox"/> \$1 million - less than \$5 million</p> <p><input type="checkbox"/> \$5 million - less than \$10 million</p> <p><input type="checkbox"/> \$10 million - less than \$20 million</p> <p><input type="checkbox"/> \$20 million - less than \$50 million</p> <p><input type="checkbox"/> \$50 million - less than \$100 million</p> <p><input checked="" type="checkbox"/> \$100 million - less than \$500 million</p>	<p>11. Ethnic Categories</p> <p><input type="checkbox"/> Asian Pacific American</p> <p><input type="checkbox"/> B (Black American)</p> <p><input type="checkbox"/> H (Hispanic American)</p> <p><input type="checkbox"/> NA(Native American)</p> <p><input type="checkbox"/> Non-Minority Women</p> <p><input type="checkbox"/> Subcont. Asian American</p> <p><input checked="" type="checkbox"/> Other (i.e., not of any other group listed above)</p> <p>12. Gender</p> <p><input type="checkbox"/> Female</p>

Type of work bid on:

Environmental planning

\$500 million - less than \$1 billion

Male

Over \$1 billion

Please be specific in regard to the type of work.

Supplier: Harris Miller Miller & Hanson Inc.

VOLUME OF PREVIOUS WORK ATTESTATION FORM

The completed and signed form should be returned with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Failure to provide timely may affect the Vendor's evaluation.

This completed form MUST be included with the Vendor's submittal at the time of the opening deadline to be considered for a Tie Breaker criterion (if applicable).

Points assigned for Volume of Previous Work will be based on the amount paid-to-date by the County to a prime Vendor **MINUS** the Vendor's confirmed payments paid-to-date to approved certified County Business Enterprise (CBE) firms performing services as Vendor's subcontractor/subconsultant to obtain the CBE goal commitment as confirmed by County's Office of Economic and Small Business Development. Reporting must be within five (5) years of the current solicitation's opening date.

Vendor must list all received payments paid-to-date by contract as a prime vendor from Broward County Board of County Commissioners. Reporting must be within five (5) years of the current solicitation's opening date.

Vendor must also list all total confirmed payments paid-to-date by contract, to approved certified CBE firms utilized to obtain the contract's CBE goal commitment. Reporting must be within five (5) years of the current solicitation's opening date.

In accordance with Section 21.31.d. of the Broward County Procurement Code, the Vendor with the lowest dollar volume of work previously paid by the County over a five-year period from the date of the submittal opening will receive the Tie Breaker.

The Vendor attests to the following:

Item No.	Project Title	Contract No.	Department/ Division	Date Awarded	Prime: Paid to Date	CBE: Paid to Date
1.	FLL/BCAD Acoustical Consulting Services- 2014-2017	RLI/RFP No. R1180909P1	Aviation	02/06/2018	\$293,518	Montgomery Consulting Group: \$40,363.38 Dickey Consulting Services: \$67,768.03
2.	FLL/BCAD Acoustical Consulting Services - Year 4	RLI/RFP No. R1180909P1	Aviation	04/08/2019	\$110,109	Montgomery Consulting Group: \$3,250.81 Dickey Consulting Services: \$1,038.68
3.	FLL/BCAD	RLI/RFP No.	Aviation	11/26/2019	\$103,212	Montgomery

	Acoustical Consulting Services- Year 5	R1180909P1				Consulting Group: \$4,622.11 Dickey Consulting Services: \$5,694.37
4.						
5.						
6.						
7.						

Grand Total **\$506,839** **\$122,737**

Has the Vendor been a member/partner of a Joint Venture firm that was awarded a contract by the County?

Yes No

If Yes, Vendor must submit a **Joint Vendor Volume of Work Attestation Form**.

Vendor Name: Harris Miller Miller & Hanson Inc.

Mary Ellen Eagan
Authorized Signature/Name

President and CEO
Title

01/30/20
Date

VOLUME OF PREVIOUS WORK ATTESTATION JOINT VENTURE FORM

If applicable, this form and additional required documentation should be submitted with the Vendor's submittal. If not provided with submittal, the Vendor must submit within three business days of County's request. Failure to timely submit this form and supporting documentation may affect the Vendor's evaluation.

If a Joint Venture, the payments paid-to-date by contract provided must encompass the Joint Venture and each of the entities forming the Joint Venture. Points assigned for Volume of Previous Work will be based on the amount paid-to-date by contract to the Joint Venture firm **MINUS** all confirmed payments paid-to-date to approved certified CBE firms utilized to obtain the CBE goal commitment. Reporting must be within five (5) years of the current solicitation's opening date. Amount will then be multiplied by the member firm's equity percentage.

In accordance with Section 21.31.d. of the Broward County Procurement Code, the Vendor with the lowest dollar volume of work previously paid by the County over a five-year period from the date of the submittal opening will receive the Tie Breaker.

The Vendor attests to the following:

Item No.	Project Title	Contract No.	Department/ Division	Date Awarded	JV Equity Percent	Prime: Paid to Date	CBE: Paid to Date
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							

Grand
Total

Vendor is required to submit an executed Joint Venture agreement(s) and any amendments for each project listed above. Each agreement must be executed prior to the opening date of this solicitation.

Vendor Name:

Authorized Signature/Name

Title

Date

VENDOR QUESTIONNAIRE AND STANDARD CERTIFICATIONS
Request for Proposals, Request for Qualifications, or Request for Letters of Interest

Vendor should complete questionnaire and complete and acknowledge the standard certifications and submit with the solicitation response. If not submitted with solicitation response, it must be submitted within three business days of County's request. Failure to timely submit may affect Vendor's evaluation.

If a response requires additional information, the Vendor should upload a written detailed response with submittal; each response should be numbered to match the question number. The completed questionnaire and attached responses will become part of the procurement record. It is imperative that the person completing the Vendor Questionnaire be knowledgeable about the proposing Vendor's business and operations.

1. Legal business name:**Harris Miller Miller & Hanson Inc.**
2. Doing Business As/ Fictitious Name (if applicable):**HMMH**
3. Federal Employer I.D. no. (FEIN):**04-2737079**
4. Dun and Bradstreet No.:**01-835-2641**
5. Website address (if applicable): **https://hmmh.com/**
6. Principal place of business address: **700 District Avenue, Suite 800, Burlington, MA 01803**
7. Office location responsible for this project: **700 District Avenue, Suite 800, Burlington, MA 01803**
8. Telephone no.:**781-229-0707** Fax no.:**781-229-7939**
9. Type of business (check appropriate box):
 - Corporation (specify the state of incorporation):**Massachusetts**
 - Sole Proprietor
 - Limited Liability Company (LLC)
 - Limited Partnership
 - General Partnership (State and County Filed In)
 - Other - Specify
10. List Florida Department of State, Division of Corporations document number (or registration number if fictitious name): **N/A**
11. List name and title of each principal, owner, officer, and major shareholder:
 - a) **Mary Ellen Eagan, President and CEO**
 - b) **Diana Wasiuk, Vice President and COO**
 - c)
 - d)
12. AUTHORIZED CONTACT(S) FOR YOUR FIRM:

Name: **Mary Ellen Eagan**

Title: **President and CEO**
E-mail: **meagan@hmmh.com**
Telephone No.: **781-229-0707**

Name: **Rhea Gundry**
Title: **Principal Consultant**
E-mail: **rundry@hmmh.com**
Telephone No.: **916-368-0707 x2222**

- 13. Has your firm, its principals, officers or predecessor organization(s) been debarred or suspended by any government entity within the last three years? If yes, specify details in an attached written response. Yes No
- 14. Has your firm, its principals, officers or predecessor organization(s) ever been debarred or suspended by any government entity? If yes, specify details in an attached written response, including the reinstatement date, if granted. Yes No
- 15. Has your firm ever failed to complete any services and/or delivery of products during the last three (3) years? If yes, specify details in an attached written response. Yes No
- 16. Is your firm or any of its principals or officers currently principals or officers of another organization? If yes, specify details in an attached written response. Yes No
- 17. Have any voluntary or involuntary bankruptcy petitions been filed by or against your firm, its parent or subsidiaries or predecessor organizations during the last three years? If yes, specify details in an attached written response. Yes No
- 18. Has your firm's surety ever intervened to assist in the completion of a contract or have Performance and/or Payment Bond claims been made to your firm or its predecessor's sureties during the last three years? If yes, specify details in an attached written response, including contact information for owner and surety. Yes No
- 19. Has your firm ever failed to complete any work awarded to you, services and/or delivery of products during the last three (3) years? If yes, specify details in an attached written response. Yes No
- 20. Has your firm ever been terminated from a contract within the last three years? If yes, specify details in an attached written response. Yes No
- 21. Living Wage solicitations only: In determining what, if any, fiscal impacts(s) are a result of the Ordinance for this solicitation, provide the following for informational purposes only. Response is not considered in determining the award of this contract.
Living Wage had an effect on the pricing. Yes No
 N/A
If yes, Living Wage increased the pricing by% or decreased the pricing by%.

Cone of Silence Requirement Certification:

The Cone of Silence Ordinance, Section 1-266, Broward County Code of Ordinances prohibits certain communications among Vendors, Commissioners, County staff, and Selection or Evaluation Committee members. Identify on a separate sheet any violations of this Ordinance by any members of the responding firm or its joint ventures. After the application of the Cone of Silence, inquiries regarding this solicitation should be directed to the Director of Purchasing or designee. The Cone of Silence terminates when the County Commission or other awarding authority takes action which ends the solicitation.

The Vendor hereby certifies that: (check each box)

- The Vendor has read Cone of Silence Ordinance, Section 1-266, Broward County Code of Ordinances; and
- The Vendor understands that the Cone of Silence for this competitive solicitation shall be in effect beginning upon the appointment of the Selection or Evaluation Committee, for communication regarding this

solicitation with the County Administrator, Deputy County Administrator, Assistant County Administrators, and Assistants to the County Administrator and their respective support staff or any person, including Evaluation or Selection Committee members, appointed to evaluate or recommend selection in this RFP/RLI process. For Communication with County Commissioners and Commission staff, the Cone of Silence allows communication until the initial Evaluation or Selection Committee Meeting.

- The vendor understands that they may communicate with a representative of the Office of Economic and Small Business Development ("OESBD") at any time regarding a solicitation or regarding participation of Small Business Enterprises or County Business Enterprises in a solicitation. OESBD may be contacted at (954) 357-6400. The Cone of Silence also permits communication with certain other County employees (refer to the Cone of Silence Ordinance).
- The Vendor agrees to comply with the requirements of the Cone of Silence Ordinance.

Drug-Free Workplace Requirements Certification:

Section 21.31.a. of the Broward County Procurement Code requires awards of all competitive solicitations requiring Board award be made only to firms certifying the establishment of a drug free workplace program. The program must consist of:

1. Publishing a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the offeror's workplace, and specifying the actions that will be taken against employees for violations of such prohibition;
2. Establishing a continuing drug-free awareness program to inform its employees about:
 - a. The dangers of drug abuse in the workplace;
 - b. The offeror's policy of maintaining a drug-free workplace;
 - c. Any available drug counseling, rehabilitation, and employee assistance programs; and
 - d. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
3. Giving all employees engaged in performance of the contract a copy of the statement required by subparagraph 1;
4. Notifying all employees, in writing, of the statement required by subparagraph 1, that as a condition of employment on a covered contract, the employee shall:
 - a. Abide by the terms of the statement; and
 - b. Notify the employer in writing of the employee's conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or of any state, for a violation occurring in the workplace NO later than five days after such conviction.
5. Notifying Broward County government in writing within 10 calendar days after receiving notice under subdivision 4.b above, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;
6. Within 30 calendar days after receiving notice under subparagraph 4 of a conviction, taking one of the following actions with respect to an employee who is convicted of a drug abuse violation occurring in the workplace:
 - a. Taking appropriate personnel action against such employee, up to and including termination; or
 - b. Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a federal, state, or local health, law enforcement, or other appropriate agency; and
7. Making a good faith effort to maintain a drug-free workplace program through implementation of subparagraphs 1 through 6.

The Vendor hereby certifies that: (check box)

- The Vendor certifies that it has established a drug free workplace program in accordance with the above requirements.

Non-Collusion Certification:

Vendor shall disclose, to their best knowledge, any Broward County officer or employee, or any relative of any such officer or employee as defined in Section 112.3135 (1) (c), Florida Statutes, who is an officer or director of, or has a material interest in, the Vendor's business, who is in a position to influence this procurement. Any Broward County officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement. Failure of a Vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the Broward County Procurement Code.

The Vendor hereby certifies that: (select one)

- The Vendor certifies that this offer is made independently and free from collusion; or
- The Vendor is disclosing names of officers or employees who have a material interest in this procurement and is in a position to influence this procurement. Vendor must include a list of name(s), and relationship(s) with its submittal.

Public Entities Crimes Certification:

In accordance with Public Entity Crimes, Section 287.133, Florida Statutes, a person or affiliate placed on the convicted vendor list following a conviction for a public entity crime may not submit on a contract: to provide any goods or services; for construction or repair of a public building or public work; for leases of real property to a public entity; and may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in s. 287.017 for Category Two for a period of 36 months following the date of being placed on the convicted vendor list.

The Vendor hereby certifies that: (check box)

- The Vendor certifies that no person or affiliates of the Vendor are currently on the convicted vendor list and/or has not been found to commit a public entity crime, as described in the statutes.

Scrutinized Companies List Certification:

Any company, principals, or owners on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List is prohibited from submitting a response to a solicitation for goods or services in an amount equal to or greater than \$1 million.

The Vendor hereby certifies that: (check each box)

- The Vendor, owners, or principals are aware of the requirements of Sections 287.135, 215.473, and 215.4275, Florida Statutes, regarding Companies on the Scrutinized Companies with Activities in Sudan List the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List; and
- The Vendor, owners, or principals, are eligible to participate in this solicitation and are not listed on either the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List; and
- If awarded the Contract, the Vendor, owners, or principals will immediately notify the County in writing if any of its principals are placed on the Scrutinized Companies with Activities in Sudan List, the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, or the Scrutinized Companies that Boycott Israel List.

I hereby certify the information provided in the Vendor Questionnaire and Standard Certifications:

Mary Ellen Eagan	President and CEO	01/30/20
*AUTHORIZED SIGNATURE/NAME	TITLE	DATE

Vendor Name: **Harris Miller Miller & Hanson Inc.**

* I certify that I am authorized to sign this solicitation response on behalf of the Vendor as indicated in Certificate as to Corporate Principal, designation letter by Director/Corporate Officer, or other business authorization to bind on behalf of the Vendor. As the Vendor's authorized representative, I attest that any and all statements, oral, written or otherwise, made in support of the Vendor's response, are accurate, true and correct. I also acknowledge that inaccurate, untruthful, or incorrect statements made in support of the Vendor's response may be used by the County as a basis for rejection, rescission of the award, or termination of the contract and may also serve as the basis for debarment of Vendor pursuant to Section 21.119 of the Broward County Procurement Code. I certify that the Vendor's response is made without prior understanding, agreement, or connection with any corporation, firm or person submitting a response for the same items/services, and is in all respects fair and without collusion or fraud. I also certify that the Vendor agrees to abide by all terms and conditions of this solicitation, acknowledge and accept all of the solicitation pages as well as any special instructions sheet(s).