St Petersburg New Pier

Design Team Selection

City of St Petersburg
Engineering and Capital Improvements Department
attn: Brian Eichier
6th Floor
Municipal Services Center
1 – 4th St North
St Petersburg, FL 33701

Note:
This SOQ is valid for a period of not less than 90 days from September 5, 2014.

ahha! design group

ah ha!

architecture . people . strategy

September 3, 2014

Mr. Thomas Gibson, PE, Director
Engineering and Capital Improvements Department
One Fourth Street North
City of St Petersburg, FL 33701

Dear Mr. Gibson,

We are pleased to submit the following SOQ for the design of the Saint Petersburg Pier. It is our belief that the most qualified team not only brings together a complement of extremely well qualified and experienced members, but also has the ability to build consensus and garner support from the public. We believe that we strongly meet those requirements and are the best team for the project.

We are the ahha! design group, led by a local firm, and myself, a native of St Petersburg. We have deep local roots and a strength in communicating, explaining, and listening that is second to none. I have a deep seated passion to begin giving something back to this city and I can speak for all of us when I say that we are ready to get to work.

In the following pages our SOQ will amplify and expand on who we are, our qualifications and experience, and why we are the most qualified team. We will tell you about our design process, our vision and our goal to help create a pier that is iconic in its form as well as its use and which reflect the spirit, needs and desires of the city. Coupled with our work to bring the community into a shared ownership with the design, this project indeed has a chance to be built.

Thank you in advance for your time and consideration. I can speak for us all in the ahha! design group when I say that we look forward to working with you, and all St Petersburg, on this exciting project. Should you have any question please don't hesitate to ask.

Respectfully,

Paul Ries,
ahha! architecture, llc
Principal in Charge and Lead Designer
(727) 234-1304 x 1

ahha! architecture, llc
5628 Central AV Unit 1, St Pete, FL 33707
Tel 727.234.1304
Fax 866.936.1119
www.ahha-architecture.com

INTRODUCTION

Heard on the street, in the restaurants, and at various places in St Petersburg over the last three months:

"Why are we spending municipal money on this project?"

"Why should we rebuild the pier? What is the city getting from its effort and money?"

"What purpose does the pier serve and how will I benefit?"

As residents of St Pete, we have probably asked some form of these same questions since the idea to replace the pier first came to light. But what are the answers? Since we are the design team that would like to help the city find a solution to the pier replacement or renovation, we need to change our expectations from wanting an answer to asking different types of questions:

How do we help find answers to these questions in a way that moves us closer to a solution?

How do we create a process that allows for the growth of a feeling of ownership in the design by the residents and the various stakeholder groups that have a say in the solution?

How do we do all of that while honoring the history and relevance of the pier to our City while connecting it with the spirit of that which is current St Pete?

We are the ahha! design group, a consortium of design professionals led by a local architectural firm from St Petersburg. Our idea for how we approach this project is rooted in our belief in gaining the trust of the residents through ongoing public outreach, combining that trust with strong design ideas, giving the resultant dance the space to gestate, and at last, developing a solution that, when seen by all, is met with a rousing chorus of "that's it!" and "of course!"

But what are those strong design ideas of which we speak?

DESIGN APPROACH

The ahha! design group believes that the best design solutions are typically conceived from the cacophony of competing interests that, though different with every project, must be engaged without fail. To engage, we must become familiar with the project requirements and desires, understand the mythos/shared stories of the place, have the ability to bring strong ideas to the fore, and, especially, spend the time needed to listen and observe. From this foundation, concepts are formed, from concepts come designs, and from those designs, landmarks are created.

Accepting that we are just starting the design dialogue, how then do we communicate a core vision and design intent without focusing too early on the actual design? The following is a narrative that tries to walk that path with clarity, but without limiting potential solutions.

SHOULD WE KEEP THE INVERTED PYRAMID ?

We started with this thorniest of questions. The ahha! design group has spent considerable time examining and considering whether our core vision should incorporate saving and refurbishing the existing inverted (and iconic) pyramid. We are cognizant that this question evokes strong feelings from groups in support of the historic value of the pyramid, from groups who feel that the reuse and restoration is a better use of public funds and, of course, from groups that would prefer to have the pyramid replaced. [1]

Given the regulatory requirements inherent in renovating, reuse or repurposing, the condition of the existing structure, and the project's economic realities, the ahha! design group believes that replacing the inverted pyramid will ultimately be the correct choice. With that said the design group will remain open to any opportunities to save the pyramid. During the second phase of the RFQ we will continue to invest time and resources into examining possible avenues reusing the pyramid..

CORE VISION:
THE PIER AND LANDMARK STRUCTURE

We are all aware that the form of piers has historically followed function. When the first St Petersburg pier was constructed, its design, a long structure jutting out in Tampa Bay perpendicular to shore, was an obvious reflection of its function for the movement of commerce. The distance from shore provided ample steerage depth, and the long thin shape provided necessary quay length for commercial vessels of the day. Structures on the pier would have likely been limited to warehousing if any.

Our team believes that here, the central design precept hasn't changed; the use and purposes of the New St. Petersburg pier should primarily dictate the design response.

[1] Central to the question of replacing, reusing, and repurposing the pyramid is physical condition of the structure, the marine regulatory environment, building code changes, deferred maintenance, and the trade-off between the cost of saving the pyramid vs. the lost opportunity cost of having committed those funds to the pyramid.

At its most basic, our team believes that the primary purposes of the new pier are to:

- Be a catalyst, a regenerative element for new and increased economic activity in the downtown waterfront district and for the residents of St Petersburg;
- Provide and support the desired community activities and be a community gathering spot;
- Become an iconic brand for the City of St. Petersburg through its form, and its use.

Looking at the compendium of needs, desires, and physical/financial realities of this project, we believe that community outreach from our team is best suited to developing visionary creative solutions. We believe that a design that provides the greatest value for the tax dollars spent, that benefits our community in as many areas as possible, and is sustainable, and ecologically sensitive will emerge in a way that is naturally iconic without contrivance.

In addition to the primary design considerations, the ahha! design group believes that providing a marine and environmental awareness education is a high priority for the pier experience. As an alternate to a central location either within the landmark structure or on the pier, the team will explore integrating living marine education and environmental awareness stations of various sizes throughout the pier and upland areas. Benefits of locating environmental stations throughout the pier and landmark structure will have to be considered against the additional cost, complexity, and security. However we perceive the benefits to be:

- Increased public participation and awareness of the environmental education objectives of the pier;
- Increased observational time per person per visit vs. placing everything in a centralized location. [2]

The ahha! design group also feels that it would be advantageous to increase the opportunity for local art participation at the pier by selecting multiple, local, artists with the 1% for art money. At the city's request, we would assist the city in a selection process that allows this opportunity to become a reality.

CORE VISION: UPLANDS AND SPA BEACH

We feel that the inclusion of the Uplands and Spa Beach design is a requirement for integrating the St Petersburg waterfront with the pier, and as such, the designs of each must be developed in harmony. We look forward to working with AECON, ensuring that the waterfront design and pier design complement and reinforce each other.

A goal of the ahha! design group's Upland and Spa Beach design will be to provide a cohesive, design that maximizes the value of the Uplands and Spa Beach to the community while providing locations that could be converted to sites for private public partnership development without damaging the vision or cohesiveness of the whole. We foresee the design of the uplands and spa beach as an extension of the pier experience, providing a location for

[2] A number of studies comparing mean exposure times of educational displays in centralized locations versus distributed experience suggests that overall exposure, and retention of observations, is significantly greater in the distributed experience.

community desired elements not available on the pier or in the landmark structure. Our design intent is to provide a guiding vision for possible pubic private partnership at the Uplands, including suggested uses, with financial projections.

WHERE DO WE PLACE THE PIER? HOW IS IT ORIENTED?

Without re-incorporating vehicular transportation on the pier, the distance from Bay Shore Dr to the upland development site, and from the uplands to the pier head is an impediment for many people. Providing a strong incentive[3] to visit the pier terminus would mitigate this somewhat, but not fully resolve it. Relocating the bulk of the pier to a location closer inshore provides one opportunity for decreasing the reluctance of visitors to use the entire pier on a frequent basis.

Because of this, the ahha! design group would explore alternatives to the shape, length, and location of the pier.

As an example, an ellipse shaped pier/esplanade, with its focus across from spa beach and running roughly parallel to the shore, perhaps even with a floating marina mirroring the shape of the esplanade, would have a number of possible benefits.

- With the bulk of the pier closer to shore, tying the pier into the headland at multiple locations would be easier;
- A pier oriented parallel to the shore with multiple connections to land provides natural pedestrian circulation maximizing use along the length of the pier;
- Further circulation, observation, and fishing opportunities would be derived from a floating wave attenuation breakwater if the design proves feasible, and cost effective;
- Increased likelihood that patrons from Bay Shore Dr and the headland will visit the pier and that patrons of the marina/transient boaters will patronize headland and Bay Shore Dr;
- Increased accessibility for less mobile patrons;
- Greater connection between activities on the pier and uplands.

THE PIER AS A GENERATIVE FORM AND ECONMIC ENGINE FOR THE CITY

For this project to be a catalyst for increased economic activity, the new pier must provide a reason for residents to spend their money locally, and an incentive for increased tourism spending downtown. It is important that a maximum amount of the increased revenues generated by the pier stay in St. Petersburg in wages, the purchase of locally produced services and products, and deposits in local banks. These objectives will be realized by including the following features into our pier design:

- transient dockage;
- free, or low cost transportation between downtown waterfront and pier uplands;

[3] HR&A, New Quarter, and the owners market studies are the basis for predicting the drawing power of various entertainment, shopping, dining, recreational experiences or combination thereof

- adequate parking close to uplands;
- recreational opportunities;
- unique dining, shopping and entertainment opportunities;

In addition, the ahha! design group believes that a juried business enterprise area, an area for a future public/private partnership boutique hotel, and an event concert venue area should be included.

To keep people coming down to the pier, we would look for areas like the juried business enterprise area to keep the experience along the pier and esplanade fresh. We feel that the physical form of the storefronts and the experience along the pier should be ever evolving and full of activity. In a literal sense, the idea is nothing more than that of the inhabited piers and bridges from centuries past.

OPERATIONAL SUSTAINABLITY

An important consideration of our design team is that the pier, landmark structure, uplands, Spa beach, transportation, and pedestrian paths are all operationally sustainable. Provided that development properly balances the value of services received with the goal of keeping a strong community feel, we would support the concept of future public private development partnerships as a way of providing a more complete pier experience within a limited budget.

Operational stability goals:

- ensure a pier and landmark structure income stream that is sufficient to cover maintenance and operational costs;
- Identify private public partnership opportunities that could finance further development in the pier uplands area.

GROWING A LANDMARK

No matter where we start in the exploration of ideas, if the design is done with the care and love deserving of this far reaching project, ultimately the pier will be seen as a landmark for the city. As over the years it extends our lives and community out into our beautiful estuarine bay, when it once again becomes the living room of our city, it will take its place alongside the Million Dollar pier as a place beloved by all.

THE DESIGN PROCESS

To be successful, the final design must be arrived via a process that builds consensus during all phases of the work and ultimately gives the residents of St Petersburg a sense of ownership in the product. The design should reflect the spirit of the community in its use and form and work closely with the current and ongoing findings of the Pier Working Group.

The ahha! architecture design group feels strongly that this process of community outreach is ongoing from initial concept through completion of the developed design. This outreach tests concepts, analyzes feedback, reacts to both the praise and criticism from the stakeholders and community, and builds consensus. Most importantly, however, this outreach allows the citizens to feel ownership in the final design.

We start with an initial series of meetings so the public can meet us and we can get to know the dynamics of the groups. This will allow us to quickly launch a number of design concepts based on strong initial ideas that are used to kick start the design phase.

As design concepts are initially formed during our talks with the public, they start down a path that sees them reviewed and developed in design, engineering, cost, and regulatory/city review. This is a cyclical process, and one that often sees the developed concept back in front of the public for further review. Done correctly, this process allows the public to feel heard, gives the designers a wealth of information, and keeps us all excited and pulling in the same direction.

The ahha! design group is a diverse collection of local and global firms. To ensure that the combination of local connection and global resources is a benefit to the design process and not a hindrance, we will combine the power of physical presence with technology. [4]

It helps that there are many pre-existing relationships among many of the team members and firms. These friendships and working relationships will help us to quickly settle into a smooth operation.

All review drawings for the city and the public will be available on a real time basis in a central web depository.

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[4] To ensure a collaborative design environment, and cohesive design, all of the team members and project personnel that have been chosen are currently using, and have proficiency with, Autodesk Revit as their primary design software. The team leader will ensure that throughout the project all project personnel will use and be proficient with the latest version of:

- Google Sketchup Professional – Rough concepts
- Autodesk Revit – BIM design platform
- Autodesk Revit Collaboration tools
    - Autodesk Design Suite, components where required.
- MS SharePoint – document and task management
- MS Project Professional – project management.
- Lync unified communication system – IM, Email, Whiteboard, Virtual Office, Voice.

THE TEAM

the story

The ahha! design group is a consortium of three local firms that have banded together to bring our skills and passion to this project. To round out the skill set and bring to the project even more talent and skill, we have asked three larger firms to join with us. Led by the architectural firm of ahha! architecture, llc, we call ourselves the ahha! architecture group.

Normally a process fraught with guesswork, building this team was made easy because of the many interconnected relationships between the firms, and between the people of each firm. We know each other well, or are working with someone on our team that knows that person well. If the fun we have had putting this proposal response together is any indication, working together on the actual project will be delightful. So who are we?

ahha! architecture

Paul Ries, the founding principal of ahha! architecture, grew up in Gulfport, Florida, the son of a plumber and a nurse. His dad worked at all the cool construction projects in town, from hospitals, to the old FL Power campus, to an upside down pyramid at the end of a pier (he often said it was like being the Michaelangelo of plumbing; laying on your back on a barge to run the pipe our to the pier head). This was all very impressive to a small kid. Mom regaled him and his sister during dinner with war stories from her time in the O.R.; even more exciting to an impressionable child. As a plumber working with his Dad, he grew familiar with the mud and muck of a project site; from his mother, he received a sense of what it takes to heal. He has spent the last 35 years of his architectural practice combining the experience in the trenches (literally) with his love of design and a desire to provide places that, at some level, give us a chance for that healing to occur.

Fast forward to today, and we are blessed with the chance to provide just such a place for our city. As Lead Designer, Paul will be bringing that attitude and his skills to the project. Ahha! architecture is here for the duration of the project and is prepared to spend whatever time it takes with the public, the regulatory agencies, on the design boards, and on the project site to help make the project a success.

Among our key team members, we have senior advisors and strong project managers; partners that have been responsible for projects of similar scope and who have learned how to move effectively in large team, and large project settings. It doesn't hurt that many of us have worked with each other for many, many years. Ahha!'s SBE certification application is ongoing. We are currently registered as an SBE at Port Tampa.

WATG

WATG is a large destination resort firm that has does municipal sized projects throughout the world. WATG designs destinations that deliver contextual experiences, layering architecture, landscape, and interior elements to generate layers of readability that add depth to a design. Their projects are often of complex program and have many stakeholders. They bring a robust design and planning skill set to our local team. They also bring George Berean, one of Paul's first mentors, as a senior design advisor to the project. Working with WATG will very familiar from Paul's time in their employment all those many years ago.

As part of the ahha! team, WATG will be tasked with helping us develop the concepts to define a landmark for the city that honors our history while looking ahead to the St Petersburg that is emerging.

New Quarter

New Quarter brings a wonderful skill set for generating ideas to its work with the economics of these projects. Working shoulder to shoulder on all phases of the project, the economic models they build for our projects are built in lock-step with the development of the design; each activity informing the other in real time. We have worked extensively with New Quarter on projects of varying scope and type.

Besides their strengths in economic sustainability studies, market advisory services, and market segmentation analysis, New Quarter has a strong ability to predict the effects of various design alternatives on current and future comparative lease rates and market absorption. They are a local firm, with national and international connections. Their SBE certification process is ongoing.

Taylor Engineering

Central to our needs on a project that is to be designed and built in the water, on the back and upland, Taylor Engineering brings thenecessary engineering skills in Civil, marine structural, and coastal engineering as well as hydrologic modeling. Taylor Engineering brings regional expertise and is listed as a Federal SBE.

HR&A

HR&A, similar to New Quarter, but larger and with the capability to provide services on much larger projects, brings Financial Sustainability Modeling, Economic and Fiscal Impact Analysis, Market and Financial Feasibility Analysis and, Economic Revitalization Strategies to the team. HR&A is dedicated to the reinvention of the American city into vibrant urban centers that offer jobs and sustain a high quality of life for diverse communities. As part of the ahha! team HR&A provides more than three decades of experience developing visionary solutions to revitalization of the waterfront, pier and uplands.

Arup

Arup is a global engineering firm brought onto our team to provide the full breadth of necessary upland engineering that is needed on a project of this scope. Because they provide services across all disciplines, their inner coordination is second to none. Because they have a track record in the profession and with some of our member firms for working well in teams of all sizes, they are a perfect complement to the makeup and personality of our team.

Landscape

We have elected to not yet select a landscape architect. Once we move onto the second phase (if we are selected) we will select the right landscape architect for this project.

REFERENCES

Paul Ries, Lead Designer

Christian Steinbrecher Capital Project Consultants 5319 SW Westgate Dr Portland, OR 97221	503-297-4827	waterfront park and esplanade over water structures multiple clients
Russell Lund Lund South, Ltd 4-12 Sturdee St Dunedin, NZ 9016	011-643-477-5912	waterfront development and design upland development adaptive reuse
Brian Wannamaker The Falcon Art Community PO Box 12551 Portland, OR 97212	503-701-6467	community building complex regulatory coordination
Terrell Garrett Greenway Recycling 4135 NW St Helens Road Portland, OR 97210	503-793-9238	multiple stakeholders complex regulatory coordination environmental permitting and land use

ORGANIZATIONAL CHART

ahha! architecture, llc	
Paul Ries	Lead Designer, Principal in Charge
Ellis Curry	Project Manager, Principal
Tom Hamann	Senior Advisor, Team Management
Chris Steinbrecher	Quality Assurance/Quality Control; Cost and Schedule
Raphael Goodblatt	Code Compliance, Principal

WATG	
George Berean	Senior Advisor
Deborah Rosenblum	Design Lead, WATG
Chris Panfil	Planner Urban Design
Michael Brown	Landscape & Urban Planner

Taylor Engineering, Inc.	
Jon Armbruster	Civil Engineer - P.E.
Michael Whelan	Civil Engineer - P.E. , D.CE
Keith Knight	Structural Engineer – P.E.
Hugh Verkerk	Structural Engineer – P.E.
Ken Craig	Costal Engineer – P.E.
William Miller	Coastal Engineer – Ph.D, P.E.
Steve Schropp	Environmental Scientist– Ph.D.
David Stites	Environmental Scientist – Ph.D

Arup USA, Inc.	
Dan Brodkin	Project Manager, Building Structural Engineer
Ray Quinn	Mechanical Engineer
Gary LaMonica	Electrical Engineer
Igor Kitagorsky	Plumbing Engineer

New Quarter, Inc	
Scott Boodman	Brokerage Economic Analysis, Development Strategy, Public Outreach Coordinator

HR&A Advisors, Inc.	
Candace Damon	Sustainability Analysis Urban Planning Analysis Market Research

Relevant Projects

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **1**

21. TITLE AND LOCATION (City and State)
Eastbank Esplanade, Phase 1 and 2
Portland, OR

22. YEAR COMPLETED
PROFESSIONAL SERVICES: **2005-6**
CONSTRUCTION (If applicable): **2005-6**

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Portland Develoment Commission and Portland Parks and Rec	Christian Steinbrecher Owner's representative	503-297-4827

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

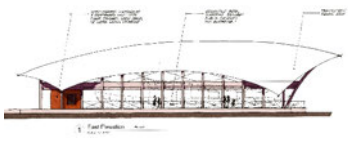
Relevance to Project

- Master Planning
- Waterfront Park
- Large Stakeholder Group
- Connecting to the fabric of the City
- Public Art
- $16m budget was met through the project phases
- Ecosystem Restoration
- Bank Stabilization
- Over-Water Structures
- Floating Docks
- Design and construction Schedule was met throughout the project phases

The development of a $16 million public bikeway and linear waterfront park. The project elements included extensive hardscape plaza elements, elevators, handicapped access, floating walkways, docks, lighting, and extensive landscape. Chris Steinbrecher was responsible for management of all phases including contractor selection, bidding document preparation evaluation, value engineering, cost analysis, plans and specifications review, construction oversight, contract administration, closeout and turnover. The works were constructed with a variety of funds including tax increment, FHWA, ODOT, local funds and in-kind contributions.

The work was under the scrutiny of many diverse agencies. The project required detailed coordination between permits from the US Army Corps of Engineers, Oregon Division of State Lands and National Marine Fisheries Service, City of Portland Bureau of Buildings and Portland Department of Transportation. Local neighborhood associations kept close watch on the project. Access for contractors was limited to one point of ingress and egress. In-water work was done in 30-day work windows that were announced without notice by the regulatory agencies. General contractors at times were required to share the same site, working around the clock in alternating 12-hour shifts. Chris was responsible for managing all of these diverse elements.

One phase of this project was a study to site the Portland Fire Bureau's Historic Fire Boat (the David Campbell) at the transient tie-up dock at the base of Station 7. The project scope evolved into a light-filled, tensile structured boathouse, crew quarters for the engine company and an apparatus garage on an upland parcel. Close coordination was required with Phase one, the Oregon State Marine Board, multiple city bureaus, the Portland Development Commission, and the Fundraising arm of the Portland Fire Bureau.



Architectural Fees:

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	ahha! architecture	Portland, OR	Design and management for various portions of each phase

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **2**

21. TITLE AND LOCATION (City and State)

New Zealand Loan and Mercantile Building
Dunedin, NZ

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2014	Ongoing (2017)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Loan and Mercantile Trust	Russell Lund	011-643-477-5912

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Relevance to Project

- Master Planning
- Waterfront Park
- Large Stakeholder Group
- Over-Water Structures
- Complex Regulatory Environment
- $10m total project budget; all phases within budget +/- 2%
- Ecosystem Restoration
- Downtown Revitalization
- Connection of Waterfront to City Center
- on-schedule; planning consent to be approved by Jan 2015 and construction to immediately start thereafter

The New Zealand Loan and Mercantile building, constructed in 1873, was New Zealand's first ever grain storage building and is a central part of the first stage of the regeneration of the City of Dunedin's waterfront. Paul was selected due to his long relations with the City of Portland's development patterns, his association with the Portland Development Commission (PDC), and his skill at using the lessons learned as a model for this project. Representatives from the City of Dunedin visited Portland in 1997 and the CEO of the Otago Chamber of Commerce visited with the PDC in 2011 to study how the city was successful in revitalizing its declining industrial areas.

The City of Dunedin attempted to embark on the same process in 2005 with a plan change process, but opposition from industrial tenants stalled the process. Though the plan change was withdrawn in 2012, a considerable amount of infrastructure (pedestrian walks, restaurants and a Chinese garden) has been developed in the area around the Loan and Mercantile building. The building's owners have since applied for planning consent to realize the vision for this area of the City and this building of national importance.

The NZ Heritage Trust supports the proposal and there has been much recent and increasing public interest in the redevelopment of the waterfront and the building.

Architectural Fees:

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	ahha! architecture	St Petersburg, FL	Prime Design Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **3**

21. TITLE AND LOCATION (City and State)

Centennial Mill
Portland, OR

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2005	NA

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

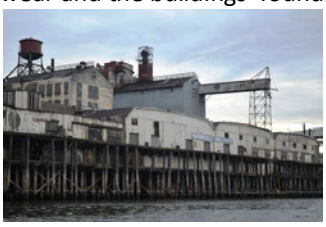
Relevance to Project

- Master Planning
- Tie into Waterfront Park System
- Large Stakeholder Group
- Over-Water Structures
- Pier analysis
- $37m total project development budget
- Ecosystem Restoration
- Bank Stabilization
- Upland Development
- Existing building analysis re: keep or not keep all or portions of the structure
- Feasibility and design was delivered on-schedule

Centennial Mill has been a landmark building in Portland for years. Acquired by the Portland Development Commission, the building and its waterfront site and pier structure have been targeted for future development.

Positioned at the ever closer edge of the Pearl District, this complex of buildings has been earmarked as the centerpiece of the North side of Portland. Uses were to bridge the growth of the vibrant retail to the south with the existing industry to the North.

The existing complex has been severely damaged by the climate and extended non-use. The in-water piers showed extreme wear and the buildings' foundations at the water edge were at the end of their useful life. The project team worked closely with all regulatory agencies to determine the best strategy for the building's reuse and to develop the master plan that stitched together the industrial district with the growing city center



Similar in complexity to the Eastbank Esplanade project, the labyrinth of regulatory directions and requirements had a direct result on the aesthetic and use driven outcome of the feasibility study.

Architectural Fees:

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	ahha! architecture	Portland, OR	Prime Design Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **4**

21. TITLE AND LOCATION (City and State)
Eastbank Phase III
Portland, OR

22. YEAR COMPLETED 2008

PROFESSIONAL SERVICES: **$350,000**

CONSTRUCTION (If applicable): **NA**

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
City of Portland, OR	**NA**	**NA**

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Relevance to Project

- Master Planning
- Waterfront Park
- Large Stakeholder Group
- Over-Water Structures
- Signature Design
- Ecosystem Restoration

Responsibilities include project scoping, contractual work, and project monitoring. This high-profile 3.5-acre park on the Willamette River is to serve the neighborhood, the City, and the region. The project involves extensive public involvement with the City of Portland, State and Federal agencies, the neighborhood, and a quasi-public Advisory Committee.

Fees:

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **5**

21. TITLE AND LOCATION (City and State)

Fort Wainwright Master Plan
Fairbanks, AK

22. YEAR 2002

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
$380,000	**NA**

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Bureau of Land Management	**Jack Emrick**	**303 236 1157**

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Relevance to Project

- Master Planning
- Multiple agencies/stakeholders
- Historic Landmark
- Hazardous Environmental concerns
- Project Phasing

This Master Plan establishes guidance for the overall programming and development of future actions for the BLM Alaska Fire Service located on Fort Wainwright Army Post in Fairbanks, Alaska. The Master Plan also provides the necessary support for future funding requests.

The project's location is on 55 acres at the Fort Wainwright Army Airfield; and is the hub of command, control and services for all wildland fire operations in Alaska. All personnel, equipment, and supplies needed to fight wildland fires in Alaska go through this facility.

Services involved gathering existing information, researching programmatic requirements, developing conceptual options with a preferred alternative, providing an Environmental Assessment, and finalizing a Master Plan with costs and phasing.

The project included on-site inventory and data collection for utilities and buildings, individual interviews with department representatives to develop programming requirements, coordination with all Army Post requirements, and coordination with SHPO, as the entire site is in a Historic District and part of the site is in a Landmark Historic District. Tom developed space assessment requirements, vulnerability analysis, LEED analysis, and identified environmental issues on this superfund site.

Fees:

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **6**

21. TITLE AND LOCATION (City and State)

Bureau of Land Management National Interagency Fire Center Master Plan
Boise, Idaho

22. YEAR COMPLETED 2007

PROFESSIONAL SERVICES: **$375,000**

CONSTRUCTION (If applicable): **NA**

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Bureau of Land Management	**Jack Emrick**	**303 236 1157**

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Relevance to Project

- Master Planning
- Coordination with ten agencies
- Project Phasing

Prepared a facilities master plan for the BLM addressing space needs and assessing expansion opportunities for a 53-acre site located at the Boise International Airport.

The site includes 21 existing buildings ranging from warehouse to office uses along with associated vehicular parking, an aircraft ramp accessing the Boise airport taxiways and runway, and significant additional open space.

Ten different federal and state agencies are located at this site as tenants to coordinate operations and develop standards and policies for wildland fire fighting on public lands throughout the nation. Documentation of existing conditions, current space demands, land and building capacities, and developed master concept site and building plans to address future expansion. The master plan includes existing conditions mapping; building and site programming; site plan concepts; a preferred master site plan alternative; building floor plan concepts; recommended phasing and capital improvement plans; and planning level cost estimates. The master plan was developed to provide a roadmap for the BLM to seek funding and implement infrastructure and building projects to support the growth of the facility

Fees:

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **7**

21. TITLE AND LOCATION (City and State)
NPS Paradise Inn Annex; Mount Rainier National Park
Washington

22. YEAR 2011

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
$360,000	NA

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
National Park Service	NA	NA

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Relevance to Project

- Master Planning
- Historic Landmark
- Renovation
- Sensitive Ecosystem

Most guests visiting at the Paradise Inn stay in the 1920 guest room addition simply known as the Annex. It houses 120 of the 180 guest rooms on four floors connected to the Inn by the enclosed Snow Bridge.

The Snow Bridge and north stair tower were originally temporary constructions built in anticipation of a second wing of guest rooms and central stone tower, both of which were never realized.

After 90 years the Annex still needs seismic and life safety upgrades that were slated for rehabilitation as part of the lobby, dining room, and east wing upgrades, but have been delayed due to funding availability. Tom was asked by the National Park Service (NPS) to review the previous project scope in light of new federal energy requirements along with site-specific information gained during earlier work and validate the projected project construction costs. In essence, the Annex will be rebuilt from the ground up with new foundations, electrical, mechanical, plumbing, and fire suppression systems that will require almost every surface to removed and replaced in the process. Services include a value analysis; a scope and cost validation report; additional geotechnical investigations; discovery demolition and repair of critical concealed conditions; verify extent of historical fabric; construction cost estimating; and subsurface drainage system design.

Fees:

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **8**

21. TITLE AND LOCATION (City and State)
Ko-Falen Cultural Center
Bamako, Mali, West Africa

22. YEAR COMPLETED
PROFESSIONAL SERVICES: **2012**
CONSTRUCTION (If applicable): **ongoing**

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Ko-Falen	**Baba Wague Diakite**	**503-234-1969**

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Relevance to Project

- Master Planning
- Community Outreach
- Fundraising
- Complex Regulatory Environment
- Tight Budget for amount of Use Requirements
- Ecosystem Restoration
- Integration of Community Art
- Strong Neighborhood Goals
- concept phase of design is complete; fundraising is underway

The Ko-Falen Cultural Center seeks to promote cultural, artistic and educational exchanges between the people of the United States and those of Mali. This is accomplished through art workshops, dance, music, storytelling and ceremony.

"The Ko-Falen Cultural Center gives us a reason to learn about other cultures and places that we otherwise wouldn't know exist. This is definitely the beginning of creating relationships and getting acquainted with each other. Once you get to know each other, it is easy to work together and appreciate each other. This is a great dream!"

Yacouba Coulibaly, building engineer

By creating a center built by both local neighbors and visiting Americans, the Malians living in the Boulkassoumbougou neighborhood are welcome to interact with people and share stories that may otherwise never have been told.

Phase one was designed and constructed in 2005-2007. This current phase was to add a second level onto the center so as to allow ceremonial gatherings and extended story telling. These stories will be recorded (voice and video) so the oral history of the culture is not lost. Working closely with native Malian, artist, and storyteller Baba Wague Diakite, our job was to design a solution that worked not only technically, but that was economically sustainable, and which connected to an even greater extent than the original building, to the ceremonial mango forest adjacent.

Architectural Fees:

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	**ahha! architecture**	**St Petersburg, FL**	**Prime Design Consultant**

Multi-Group Clients

- **Casablanca Marina – Casablanca, Morocco**
  - New Marina Casablanca S.A.
- **Hawaii Convention Center – Honolulu, Hawaii**
  - State of Hawaii
- **Porto Montegro - Tivat, Montenegro**
  - Adriatic Marinas
- **Royal Opera House – Muscat, Oman**
  - Royal Estate Affairs
  - Royal Court of Affairs
  - Sultanate of Oman

Casablanca Marina

Casablanca, Morocco

WATG Wimberly INTERIORS

client

New Marina Casablanca S.A.

size

150 key luxury hotel
8,000 sqm marina retail
300 key tower hotel
120 key four-star hotel

amenities

Luxury marina hotel, luxury yacht marina, retail; f&b marina facilities, destination night club, tower hotel & convention centre, public square with interactive façade

services provided

Architecture
Interiors by Wimberly Interiors
Master Planning
Landscape

design vision

To create a new vibrant and modern marina in Casablanca for the local people and visitors alike and to reconnect a part of the city back to its ocean frontage. WATG created a place that embraces and celebrates the rich history and bright future of Casablanca. This was done by creating an animated marina edge which included a luxury hotel, boutique retail, cafes and restaurants. An iconic tower hotel anchors the project site and creates a visual reference to the rest of the city. This is connected to a convention centre which provides a dramatic and interactive backdrop to a new public square. A four star hotel provides a seamless connection with the adjacent retail centre. This new urban centre development will help propel Casablanca into the 21st century.

Casablanca Marina

Casablanca, Morocco

WATG Wimberly INTERIORS

Hawaii Convention Center

Honolulu, Hawaii, USA

WATG

challenge

The design challenge was to capture the tropical ambiance of the Hawaiian islands, while serving the business needs of international professionals in a convention center setting.

solution

The design reflects the open-air quality of life in the islands and communicates the enduring themes of Hawaii's culture, history and environment. The use of light, nature and artwork ensure users experience the Hawaii sense of place. The third-floor conference facilities include 12 executive conference rooms with state-of-the-art technology, special finishes, private restrooms, wet bars, terraces and courtyards.

results

This landmark attracts delegates and exhibitors from around the world, encouraging business opportunities in the state of Hawaii.

client

State of Hawaii

size

9.7 acres
1,106,671 square feet
200,000-square-foot exhibit space
207,426 square feet of meeting space in 51 meeting rooms

awards

AIA Excellence Award
Hawaiian Electric Company's Energy Project of the Year Award

amenities

36,000-square-foot ballroom; 12 executive conference rooms; two presentation theaters; press room; teleconferencing center

services provided

Architectural design

associate architect

LMN Architects, Seattle

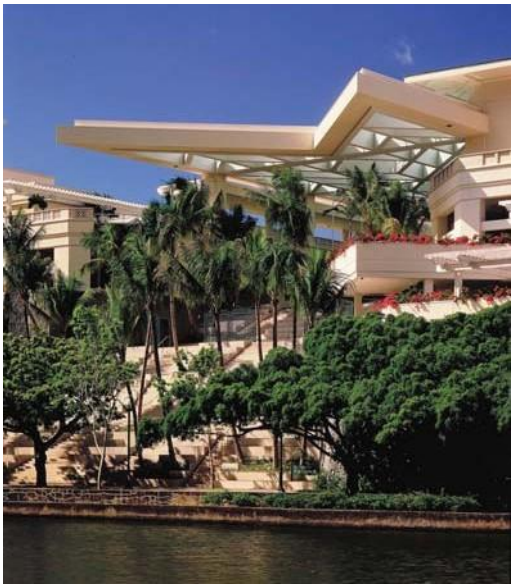
"This project is very well done, inside and out. Of particular note: the use of natural light, the attention to detail, and the incorporation of landscaping. It's already a landmark."

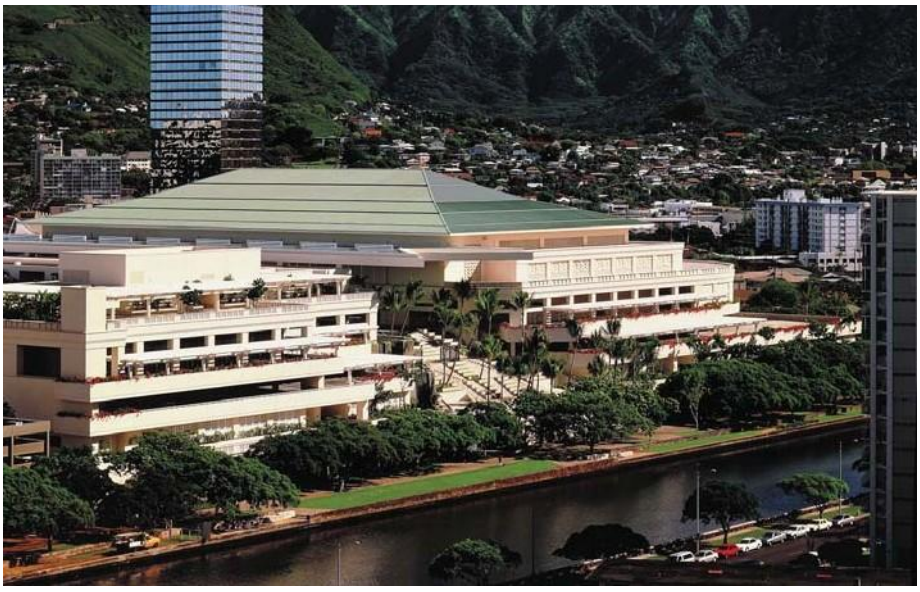
- AIA awards jurors

Hawaii Convention Center

Honolulu, Hawaii, USA

WATG





Porto Montenegro Master Plan

Tivat, Montenegro

WATG

client

Adriatic Marinas

size

28 ha overall development site
750 new luxury residential units
416 hotel keys
850 berth marina (full build out)
5,000 sqm additional retail

amenities

Residential; retail; hotel; marina; dining & entertainment

services provided

Master Planning
Urban Design

design vision

Beyond 2014 Porto Montenegro will continue to deliver on its vision in becoming the premier super yacht destination and home port in the Adriatic. Building on from the success of the established marina and residences, the established master plan provides the framework for the next phase of development for this prime waterfront property.

Porto Montenegro Master Plan

Tivat, Montenegro

WATG

Royal Opera House - Muscat

Muscat, Oman

WATG

client

Royal Estate Affairs
Royal Court of Affairs
Sultanate of Oman

size

Eight hectares (20 acres)
1,000-seat concert hall
(18,580 square meters /
200,000 square feet)

scope / amenities

World-class opera house & concert theatre; auditorium; formal landscaped gardens

services provided

Lead Architect/Architect of Record
Planning
Interior design
Landscape design

officially launched

October 2011

challenge

The challenge was to design a unique and distinctive upscale venue for a 1,000-seat concert hall in a new urban district which could also be used for musical, theatrical and operatic productions.

solution

The architectural character of the building was influenced by the grand style of modern Omani palaces, and reflects their outward design features and circulation patterns. The front entrance is backed by five tall decorative arched entry ways into the main foyer and grand staircase area that forms the central focus of a colonnade designed to create a grand feeling of entrance. The structure was finished in locally-sourced limestone and stucco. The venue incorporates a movable acoustic shell within the stage area to facilitate theatre with stage and side stages and provides an option for a more intimate concert mode when brought forward. With the use of an adjustable proscenium alternative stage and acoustic configurations can be created providing unique unparalleled acoustic options. All seating incorporates state of the art 'seat back libretto' as can be seen from the picture above with the Auditorium stage set in concert mode.

Royal Opera House - Muscat

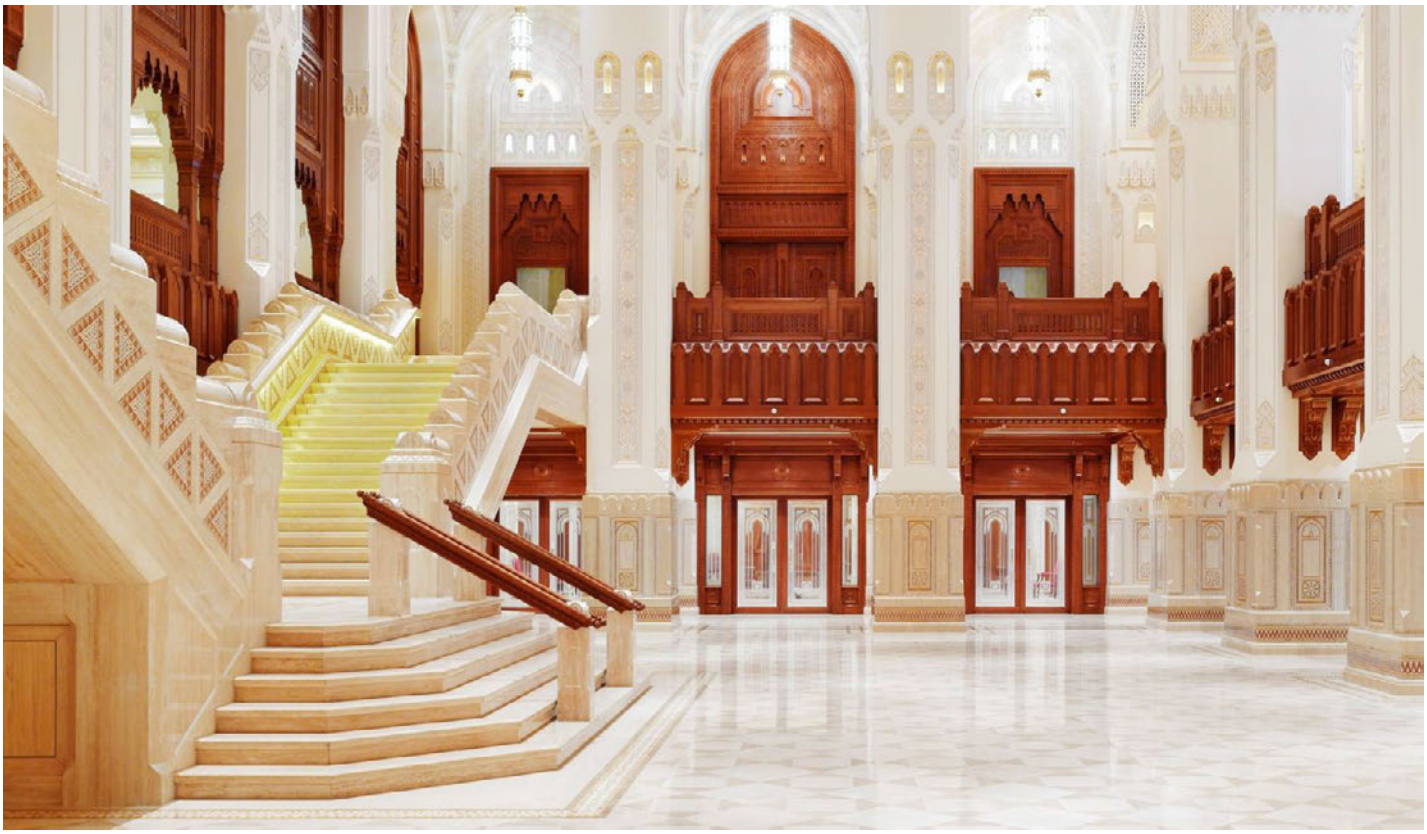
Muscat, Oman

WATG

Royal Opera House - Muscat

Muscat, Oman

WATG



F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **1**

21. TITLE AND LOCATION (City and State)

Bahia Urbana Waterfront Redevelopment
San Juan, Puerto Rico

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2013	2013

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
FC San Juan Waterfront, LLC	Tom Archer	(202) 496-6600

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Relevance to this Contract

- Marine Structures Design
- Concept Design and Studies
- Bulkhead and Seawall Design
- Dredging and Dredged Material Management Engineering
- Construction Documents
- Construction Cost Estimating
- Piers, Docks, and Wharfs
- Site Development
- Mooring Design
- Construction Phase Engineering

Bahia Urbana replaced aging and failing port infrastructure to stimulate economically, socially, and environmentally sustainable growth

Taylor Engineering served as a team member of design and land development professionals assembled to tackle a comprehensive redevelopment program for the San Juan waterfront in Puerto Rico. The project's site — an aging port facility in the heart of San Juan — presented a unique set of challenges and opportunities. Past uses included U.S. Navy and Army facilities, commercial and industrial port terminals, government facilities, as well as small craft marinas and recreation amenities. Nearby, the waterfront hosts a number of popular cruise ship terminals. The project team revitalized, retrofitted, and/or replaced aging and failing port infrastructure to support a new mixed-use development including cruise passenger tourist attractions and commercial, residential, and civic developments. Marine structure services included evaluation of bulkheads, docks, and piers and design for new bulkheads, piers, mooring facilities, dredging, and other waterfront facilities. Design challenges included poor geotechnical conditions and seismic design requirements for bulkhead structures.

Below is information specifically related to the rehabilitation and improvements to piers on the project:

- Pier 6 – Taylor Engineering prepared construction drawings and specifications for the reconstruction of this pier to include six additional mooring dolphins to allow docking of mega yachts or attraction vessels, and conversion of a fixed-dock water taxi station into a floating dock capable of supporting traditional water taxis as well as seaplane operations.
- Piers 7 and 8 – The primary goal in the rehabilitation of these piers was to convert them from condemned marine structures into public park space. Taylor Engineering completed engineering design and construction document development for a number of key features – stabilization of the Pier 7 concrete deck, riprap shoreline protection, a marine façade wall at Pier 8 pile-supported deck, a new deep water bulkhead at the southwest corner of Pier 8, and a pile-supported pedestrian bridge between Piers 7 and 8.

Professional Fees: $1.69 million

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Taylor Engineering, Inc.	Jacksonville, FL	Prime Consultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **2**

21. TITLE AND LOCATION (City and State)

City of West Palm Beach Waterfront Commons
Palm Beach County, FL

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2009	2009

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
CH2M Hill	Robert Pontek	(561) 904-7494

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Relevance to this Contract

- Concept Design and Studies
- Docks and Marina Design
- Coastal Conditions Assessment
- Environmental Permitting
- Floating Dock Design
- Marina Amenities Planning and Design
- Construction Observation

Opened in 2009, Waterfront Commons received the Beacon of Light Award, which recognizes the Marine Industries Association's Project of the Year

Taylor Engineering assisted the City of West Palm Beach in the design, permitting, and construction of a series of floating docks for Waterfront Commons, the centerpiece of the City's downtown redevelopment program on Lake Worth Lagoon. This work required coordination with the Florida Department of Environmental Protection, U.S. Army Corps of Engineers, and local building officials. These floating docks, with additional design elements that included seating areas, planting areas, and public art, brought the waterfront park's theme into the surrounding marine environment.

Taylor Engineering provided marine engineering design and construction expertise to the City's project design team, which included planners/architects, landscape architects, lighting consultants, utility designers, and planners. Taylor Engineering also provided construction administration and observation services.

Professional Fees: $333,643

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a.	Taylor Engineering, Inc.	Jacksonville, FL	Subconsultant

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: **1**

21. TITLE AND LOCATION *(City and State)*

Pérez Art Museum Miami

Museum Park, FL

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

23. PROJECT OWNER'S INFORMATION

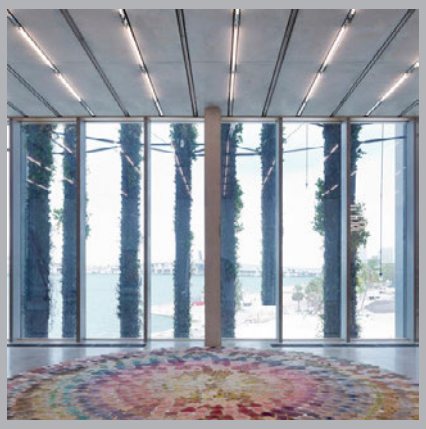
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Miami Art Museum	Confidential	Confidential

24. BRIEF DESCRIPTION OF PROJECT RELEVANCE TO THIS CONTACT *(Include scope, size and cost)*

SCOPE	SIZE	COST
Structural, mechanical, and electrical engineering, IT and communications consulting, LEED consulting, and lighting design	120,000sqft	$131m

The new Miami Art Museum will be an anchor of the 29-acre Museum Park, a redeveloped downtown waterfront that will provide a vibrant mix of green space and cultural offerings. Set on a raised podium and under a broad canopy, the museum will include Class 1 fine art gallery space, a museum shop, bistro, auditorium and additional visitor facilities.

The building represents materials manipulation at its finest, with architectural and structural concrete melding to form a plastic union of textural expression. The overhead canopy forms a dramatic capstone to the building, providing shading even from the punishing winter sun while tempering the natural daylighting in the interior galleries. Vertical hanging gardens and lush landscaping provide an exterior articulation of life from an otherwise imposing façade.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Arup USA, Inc.**	New York, NY	Engineering and consulting
b.	**XXXX**	XXXX	XXXX
c.	**XXXX**	XXXX	XXXX

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: **2**

21. TITLE AND LOCATION *(City and State)*
Miami Science Museum
Miami, Florida

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	2015 (estimated completion)

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Miami Science Museum & Planetarium	Gilliam Thomas, President and CEO	(305) 646-4228

24. BRIEF DESCRIPTION OF PROJECT RELEVANCE TO THIS CONTACT *(Include scope, size and cost)*

SCOPE	SIZE	COST
Preliminary site analysis phase support including structural, MEP, façade, civil, fire/life safety, acoustics, venue planning and ITC consultancy, audiovisual systems design, security systems design and architectural lighting	180,000ft^2	$160 Million

The new Science Museum will be built next to the proposed Miami Art Museum on Bicentennial Park in Miami, Florida, and will include general science and significant aquarium exhibits. The centerpiece is a 550,000-gallon gulf stream aquarium tank. The center will also include tropical coral reefs, large tanks for sharks and rays, a rooftop observatory, and a 300-seat planetarium sphere.

The design for the tank is an inclined cone sliced horizontally at the top and on a diagonal at the bottom. It is envisioned that at least a portion if not the entire top of the tank will be open and the water surface will be exposed to external elements.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Arup**	New York, New York	Prime
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: **3**

21. TITLE AND LOCATION *(City and State)*
FSC Polk County Science Building
Lakeland, Florida

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
1999	1999

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Florida Southern College	John McAslan (architect)	T +011 44 171 727 2663

24. BRIEF DESCRIPTION OF PROJECT RELEVANCE TO THIS CONTACT *(Include scope, size and cost)*

SCOPE	SIZE	COST
Structural, mechanical, electrical, and plumbing engineering, fire protection, façade engineering	20,000sqft	Confidential

With the successful development of a replication block mix by Arup Research and Development Group, FSC decided to renovate the Polk County Science Building.

The campus of Florida Southern College is the largest collection of Wright buildings in a single location. Begun in 1938 the last of the 11 buildings was erected in 1958.

Wright's famous textile block technology was used throughout the campus. This project began for Arup as an investigation of the deterioration of the textile block wall system in hopes of developing a replacement mix suitable for the College to use in ongoing repairs. Works included introduction of new Heating, Ventilating, and Air Conditioning (HVAC), electrical and plumbing systems and new services to updated laboratories.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Arup**	New York, NY	XXXX
b.	**XXXX**	XXXX	XXXX
c.	**XXXX**	XXXX	XXXX

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: **4**

21. TITLE AND LOCATION *(City and State)*
East River Waterfront Esplanade and Piers
New York, New York

22. YEAR COMPLETED
PROFESSIONAL SERVICES: Ongoing
CONSTRUCTION *(If Applicable)*: Ongoing

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
NYC Economic Development Corporation	Terri Bahr, Vice President	+1 212 312 3714

24. BRIEF DESCRIPTION OF PROJECT RELEVANCE TO THIS CONTACT *(Include scope, size and cost)*

SCOPE	SIZE	COST
Structural, mechanical, electrical, and plumbing engineering, geotechnical engineering, sustainability consulting	2-mile-long waterfront	$200 million

Arup and its Joint Venture partner HDR/Daniel Frankfurt were appointed by the NYCEDC, are providing multidisciplinary engineering, sustainability, cost estimating and related consulting services for the East River Waterfront and Piers project. The scope also included acting as prime consultant and managing the deliverables of the EDC-appointed architect for the project, SHoP.

The rainwater harvesting system is a part of the sustainability goals for the East River Waterfront Esplanade and Piers project near South Street Seaport with regard to water use where rainwater is reused to reduce the potable water use for landscape irrigation. An annual water balance was optimized between the demand and supply to size the system. The aim was to provide a reliable source of irrigation during normal precipitation patterns while minimizing system size and cost.

In addition to the reduction in potable water demand, the system treats the stormwater runoff from the heavily travelled elevated highway, FDR Drive; and stores the runoff underground for future use, alleviating the city sewer system. Arup designed the system consisting of collection, conveyance, removal of oils/sediments, storage and disinfection. The provision of rainwater storage for irrigation has the benefit of reducing runoff from the site and reducing CSOs into the East River.

The two main challenges of the design were water quality and available space. Collected water is treated and stored before being used for irrigation of park landscaping, but because of risk of human contact, water must meet high water quality standards. A critical component of the design process was to review the pollutant concentrations of highway runoff and select the appropriate technology to treat the rainwater to a level necessary for reuse. For example, significant highway pollutants such as heavy metals needed to be removed before reuse.

In a dense urban environment, lack of available space is an obstacle for many projects. The stormwater conveyance system and underground rainwater harvesting storage was fit in amongst many existing utilities. The groundwater table, located approximately two meters below the ground surface, vertically constrained the location of the system.

The new rainwater harvesting system at East River Waterfront demonstrates that this type of design can be accomplished in a city environment where space is limited and urban pollutants are prevalent, and is one of the first of its kind in New York City. The project involved a progressive client, NYCEDC, and designers who emphasized that rainwater is a sustainable water solution. Construction of the system will commence in summer 2012.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Arup**	New York, New York	Engineer
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **5**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Teardrop Park, Battery Park City New York, New York	2004	2004

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Battery Park City Authority	Laura Solano	+1 617 864 2076

24. BRIEF DESCRIPTION OF PROJECT RELEVANCE TO THIS CONTACT *(Include scope, size and cost)*

SCOPE	SIZE	COST
Civil, structural, mechanical and electrical engineering design	2-acres	$5m

The Teardrop Park site is located in downtown Manhattan within the Battery Park City Development area and covers an area of approximately two acres. The park is situated between four tall buildings and incorporates elemental site features that recall the natural landscape of New York State. These elements took the form of stone structures, earth forms, water features and landscape.

Arup provided full design services for the park infrastructure including civil, electrical, mechanical and structural engineering to enable the park elements to be realized. In addition to the technical engineering, Arup provided assistance to ensure the necessary approvals were obtained from the local governing authorities.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Arup**	New York, New York	Engineer
b.			
c.			
d.			
e.			
f.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER: **6**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Institute of Contemporary Art Boston, Massachusetts	2007	2006

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Institute of Contemporary Art	Melissa Kuronen	617.478.3100

24. BRIEF DESCRIPTION OF PROJECT RELEVANCE TO THIS CONTACT *(Include scope, size and cost)*

SCOPE	SIZE	COST
Structural, mechanical, electrical and plumbing and fire protection engineering, electric and daylighting	65,000 square feet	$40,000,000

The project is located on the waterfront at Fan Pier in Boston. The Institute for Contemporary Art is a non-profit institution devoted exclusively to the presentation of contemporary art. Through a comprehensive schedule of exhibitions of local, national and international significance and a program of educational outreach, the museum provides the public access to contemporary art, artists and creative processes.

The new building for the ICA was the first art museum to be built in Boston in almost 100 years and symbolizes the architectural future of one of the nation's most historic cities. As one of New England's most vibrant cultural institutions, the ICA will be the cultural centerpiece of the waterfront and one of the city's most recognized architectural landmarks. The building's dramatic cantilevered design integrates the city's Harbor Walk into the museum and offers shifting views of the harbor throughout. The building received critical acclaim and increased public awareness towards modern architecture in Boston.

The project includes a performing arts theater, educational facilities, galleries, a media and technology center, a bookstore, a gift shop, a restaurant and a loading dock.

Arup scope through all design and construction phases:

- Structural engineering services
- Mechanical, electrical, plumbing and fire protection engineering
- Electric lighting and day lighting

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Diller, Scofidio + Renfro**	New York, New York	Architect
b.	**Arup**	New York, New York	Engineer
c.			
d.			
e.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **7**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Hudson River Park New York, New York	2006	N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Hudson River Park Trust	Connie Fishman ,President and CEO (Left in Feb 2011)	+1 917 661 8740

24. BRIEF DESCRIPTION OF PROJECT RELEVANCE TO THIS CONTACT *(Include scope, size and cost)*

SCOPE	SIZE	COST
Complete range of sustainable development design issues including social, economic and environmental.	550-acre, 5-miles long	$330 million

The Hudson River Park Project is the most significant park development project in New York City in decades.

The 550-acre, 5-mile long project regenerates the historic waterfront on the west side of Manhattan between the bulkhead wall and the west side highway providing public access to the Hudson River. It provides a waterfront esplanade, a bike lane and landscaping along the full length of the park and reconstructed piers for public use, both active and passive. Boat piers and water taxi stops were provided to encourage water based recreation such as sailing and canoeing. Areas also were provided to allow public events including concerts and arts performances.

The historic setting is an important aspect of the design and features such as a historic rail transfer pier and the old Cunard cruise ship loading piers emphasized. Get downs, floating platforms and beach areas were provided to allow access to the water's edge. A number of piers were isolated from the land and planted to provide a human-free habitat for wildfowl; and regulations have been set to ensure minimal effect on the river's aquatic life. Arup, together with Bovis Lend Lease, was appointed by the Hudson River Park Trust as its project manager and design coordinator for all 7 segments that make up the park. Arup, Bovis and their sub-consultants were responsible for all data collection related to the park. Park-wide design criteria, for all aspects of the park, were set for adoption by the designers of each segment and the resulting designs were reviewed.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Arup**	New York, NY	Project Management and Design Coordination Services
b.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
c.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
d.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
e.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
f.	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)*	20. EXAMPLE PROJECT KEY NUMBER **8**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Hunter's Point South Long Island City, NY	Ongoing	Ongoing

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
NYC Economic Development Corporation	Len Greco, Vice President, Capital Programs	+1 212 312 3743

24. BRIEF DESCRIPTION OF PROJECT RELEVANCE TO THIS CONTACT *(Include scope, size and cost)*

SCOPE	SIZE	COST
Project management, civil engineering, transport planning, structural, mechanical, electrical, and plumbing engineering, geotechnical engineering, sustainability, lighting, fire/life safety consulting	30-acre site	$57.5 million

Arup has contributed significantly to a number of pilot projects for green infrastructure at Hunter's Point South. Currently, we are leading a project team charged with designing sustainable infrastructure (including a waterfront park) to support a new 30-acre neighborhood. Hunter's Point South is a proposed development on the East River waterfront in Queens. When finished, it will include up to 5,000 new housing units, 60% targeted to middle-income families. The client, NYCEDC, is also planning for 100,000ft2 of retail, 50,000ft2 of community space and two schools. Currently in construction, the first phases of both the infrastructure and the waterfront park are scheduled for completion in December and November 2013, respectively.

Our infrastructure scope as prime consultant included gaining approval for the Amended Drainage Plan and the design and coordination of roadways, water mains, separate storm and sanitary sewers (previously, the two were combined on the site), and various utilities (e.g.,electric, telecommunications, and cable). Arup's integrated design team developed practical, cost-effective methods for less-than-ideal site conditions and implementing an array of green infrastructure elements throughout the site (and within the public right-of-way), including streetside stormwater planters, bioswales, and porous pavement, which is currently under construction.

Less-than-ideal site conditions created considerable challenges. Variable (and, in places, loosely compacted) manmade fill atop soft organic silts that are highly compressible and variable in thickness led to challenges supporting the new infrastructure. Immovable existing utilities caused coordination issues with the new infrastructure, and shallow transportation tunnels (Queens-Midtown and Amtrak) reduced the options for structural support of new infrastructure.Coordination with multiple external agencies was a critical aspect of the project. Working with over 70 independent entities during the design phase alone, we gathered input from NYC DOT, NYC DEP, DPR, NYS DEC, FDNY, MTA, Con Edison, Amtrak and others, confirming that our designs incorporated all necessary standards from relevant approving authorities. This was particularly crucial as the unique site conditions required a variety of highly customized solutions.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Arup**	New York, NY	Prime
b.			
c.			

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project)

20. EXAMPLE PROJECT KEY NUMBER
9

21. TITLE AND LOCATION *(City and State)*
Pier A
New York, New York

22. YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Battery Park City Authority	Gwen Anderson	212-417-4333

24. BRIEF DESCRIPTION OF PROJECT RELEVANCE TO THIS CONTACT *(Include scope, size and cost)*

SCOPE	SIZE	COST
Restoration of the historic wooden façade to provide a vapor barrier and insulation suitable for a modern, energy-efficient air-conditioned space	36,000sqft	$40m

Pier A is located on the Hudson River at Battery Park and is listed as a historic landmark. The building is a 2-level facility mostly supported on the pier, and surrounded by a promenade. The tenant will operate it as a year-round food and beverage facility. The extensive upgrading includes restoring the historic wooden façade to provide a vapor barrier and insulation suitable for a modern, energy-efficient air-conditioned space. The plaza required planning to obtain Waterfront Zoning and meet City agency requirements. Arup's role as owner's representative is to assist in resolving a number of issues, including previous foundation settlements, accommodating FEMA extreme flooding, the historic promenade strengthening, historic façade upgrading, code issues, and HVAC to suit tenant and LL86 energy requirements, also prime consultant for the plaza planning, design approvals and implementation.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.	**Arup USA, Inc.**	New York, NY	Engineering and consulting
b.	**XXXX**	XXXX	XXXX
c.	**XXXX**	XXXX	XXXX

HR&A Analyze. Advise. Act.

RELEVANT EXPERIENCE

Supporting Neighborhood Growth on Toronto's Waterfront | Toronto, Ontario

Size: 1,100 acres
Budget: $463,000
Client: Waterfront Toronto
Project Schedule: 2007-2009

HR&A provided strategic real estate and economic advice to Waterfront Toronto on the largest urban regeneration project in North America. Waterfront Toronto was established as the Toronto Waterfront Revitalization Corporation in 2001, when municipal, provincial and federal governments committed $1.5 billion and public land holdings for the creation of a series of new development precincts featuring high quality urban real estate development, world class open spaces and a signature public realm along streets and the water's edge. Waterfront Toronto seeks to create recreational amenities, new housing and commercial spaces that will support Toronto's future competitiveness.

HR&A developed an innovative maintenance and operations funding strategy for more than 1,100 acres of new parks on the Toronto waterfront, including earned income sources, philanthropy and sponsorship arrangements, and public funding sources from multiple levels of government. HR&A led a team of experts in examining budgets and best practices from municipal park systems and signature parks throughout North America, and recommended options for developing significant new revenue sources and creating an entity to fund and/or maintain the new world-class parks. HR&A then worked with the City of Toronto and Waterfront Toronto to create a viable funding model and to implement a strategy to develop new revenue sources that will ensure a high standard of upkeep. The strategy was adopted by Toronto City Council.

HR&A Analyze. Advise. Act.

RELEVANT EXPERIENCE

Great River Passage | St. Paul, MN

Size: 3,500 acres
Budget: $66,000
Client: City of St. Paul, Division of Parks & Recreation
Project Schedule: 2010-2012

HR&A has worked extensively in the Twin Cities to advance master planning efforts for waterfront open space.

On behalf of the City of Saint Paul Division of Parks and Recreation, as part of a multidisciplinary team led by Wenk Associates, HR&A led the development of a management, funding, and implementation strategy for the Great River Passage Master Plan. The central recommendation of the Plan is to unify 17 miles of parkland along the Mississippi Riverfront (an area totaling 3,500 acres) to create a more connected, more natural, and more urban park. HR&A conducted a detailed review of the Division's $53M annual operating budget. HR&A worked closely with City staff to restructure the budget, associating particular aggregate line items and portions thereof with each type of park in the system – from active downtown and destination parks, to community gathering places and neighborhood parks, to vast natural areas. HR&A then compared these historic baseline expenditures to best practice precedents for each park type, including both local precedents and national best practices. The firm also worked with a wide array of stakeholders, from the nonprofit Saint Paul Riverfront Corporation to the National Park Service – which has its headquarters for the Mississippi National River Recreation Area in Great River Passage – to identify efficiencies for plan implementation and ongoing stewardship. After evaluating alternatives in relation to local contexts, the firm developed a strategic plan to create a new organizational division within the Division of Parks and Recreation to oversee stewardship for the Great River Passage plan, and to work with a specially-structured Great River Passage Action Committee to raise capital for priority projects and to pass necessary legislation to ensure implementation of certain plan elements.

When implemented, Great River Passage will remake the Mississippi Riverfront as a world class amenity for St. Paul's residents, workers, and visitors, and will transform the city as a whole by sparking economic development in downtown and in surrounding residential neighborhoods. The St. Paul Parks and Recreation Commission unanimously passed the Great River Passage master plan on June 28, 2012.

HR&A Analyze. Advise. Act.

RELEVANT EXPERIENCE

Minneapolis Riverfront Development Initiative | Minneapolis, MN

Size: 5.5 miles
Budget: $45,000
Client: Minneapolis Park and Recreation Board
Project Schedule: 2011

For the Minneapolis Park and Recreation Board, HR&A developed a funding strategy for the implementation of the Minneapolis Riverfront Development Initiative (MR|DI). HR&A worked intensively with the design team of Tom Leader Studio and Kennedy & Violich Architecture to shape the proposed redevelopment of 5.5 miles of the Mississippi riverfront north of Minneapolis' downtown core in a manner that would promote the economic development of the city while not creating undue fiscal burdens.

The plan for this section of riverfront, which passes through some of the city's most deprived communities and industrial lands, included new signature parks, environmental restoration projects, real estate developments, and the completion of critical links in the city's famous Grand Rounds bicycle network. HR&A assessed the potential for generating revenues to fund ongoing operations and maintenance of the planned parklands from real estate disposition and development, and from funding structures related to environmental restoration. The firm also helped identify priority sources of capital funding and strategies for the coordination of project implementation and stewardship.

The Minneapolis Park and Recreation Board unanimously voted to formally adopt RiverFIRST: A Park Design Proposal and Implementation Plan for the Minneapolis Upper Riverfront in March 2012. The plan grew out of the year-long MR|DI planning process, and when complete, will be the largest expansion of the renowned Minneapolis park system in over 100-years. Approximately $20M has been dedicated for the implementation of RiverFIRST, including development of the central riverfront, where HR&A is also working on the WaterWorks conceptual development framework.

HR&A Analyze. Advise. Act.

RELEVANT EXPERIENCE

Development Strategy Creation for Brooklyn Bridge Park | Brooklyn, NY

Size: 85 acres
Budget: $1.3 million
Client: Brooklyn Bridge Park Development Corporation
Project Schedule: 1998-2005

HR&A served as a strategic advisor to the Brooklyn Bridge Park Development Corporation (BBPDC). The firm worked with the BBPDC to translate its vision for one of the nation's great waterfronts into critical policy and strategic decisions for the 85-acre park. HR&A procured and managed the BBPDC's team of master planners, counsel, and other consultants and managed a complex, multi-year stakeholder outreach process to the project's numerous constituencies, including local, city, and state officials and diverse interest groups.

HR&A developed Brooklyn Bridge Park's innovative financing strategy. To achieve this strategy, HR&A:

- Secured commitments from the Port Authority of New York and New Jersey, State of New York, City of New York, and Con Edison electric utility, and private property owners to contribute land holdings to a unified governance structure;
- Secured commitments from City and State governments to contribute an initial capital investment of $150 million for the build-out of the project's infrastructure, including land remediation, marine infrastructure repair and enhancement, landscape and recreation features, roads, stormwater and wastewater management.
- Developed a model for self-sufficient park operation and maintenance through the entitlement and disposition of a portion of the project's land for residential, retail, hotel and parking uses – the land and payment in lieu of tax proceeds of which will generate an endowment fund to support the project's O&M requirement in perpetuity.

HR&A Analyze. Advise. Act.

RELEVANT EXPERIENCE

Revitalizing the Anacostia River Waterfront | Washington, DC

Size: 3,070 acres
Budget: $3.1 million
Client: District of Columbia, Office of City Planning
Project Schedule: 2002-2006

HR&A led a major planning and development effort for the District of Columbia's Office of City Planning, in partnership with city and federal agencies, to develop a revitalization plan for the neighborhoods and waterfront along a ten-mile-stretch of the Anacostia River. The firm managed the overall effort, known as the Anacostia Waterfront Initiative, including analyzing the opportunities and challenges for development, performing economic analyses to demonstrate the viability of the Framework Plan, building consensus for the vision among numerous public agencies, and coordinating substantial public outreach efforts. HR&A also assisted the District of Columbia with the creation of two economic development organizations – the National Capital Revitalization Corporation (NCRC) and the Anacostia Waterfront Corporation (AWC). HR&A oversaw the creation of the strategic business plans for these entities as well as the development of policies and procedures for human resources, procurement, and real estate disposition. These policies and procedures were approved by their boards and by the Council of Washington, DC. HR&A provided staff support for the Boards of both Corporations, as well as strategic guidance on policy objectives, budget preparation, and business operations.

In addition to creating two development corporations, HR&A also implemented the Anacostia Framework plan by advising on the redevelopment of several areas along the Anacostia. These plans have provided frameworks for development, infrastructure and open space for the Southwest Waterfront and the Near Southeast neighborhoods, neglected areas that are rapidly growing into vibrant, mixed-use waterfront communities, re-connecting the City to the Anacostia River.

The Anacostia Waterfront Initiative Framework Plan won the 2005 AIA Honor Award for Regional and Urban Design. According to the Washington, D.C. Mayor's Office, the Anacostia Waterfront Initiative has catalyzed over $7 billion of dollars of private investment to date.

HR&A Analyze. Advise. Act.

RELEVANT EXPERIENCE

Seattle Central Waterfront Framework Plan | Seattle, WA

Size: 2 miles
Budget: $117,000
Client: City of Seattle
Project Schedule: 2011-2013

On behalf of the City of Seattle, HR&A worked as part of a team led by CH2M HILL and Field Operations to develop the Seattle Central Waterfront Framework Plan. The Central Waterfront Project will eliminate the Alaskan Way viaduct, an elevated highway which separates downtown Seattle from Puget Sound, and provide a connective spine of parks and open space along the waterfront. HR&A developed a strategy for financing park maintenance and operations by projecting value to be generated from potential revenue streams. HR&A also developed a preliminary governance strategy to activate the park, identifying key park constituents and recommending governance models to engage their support.

In the second phase of work, HR&A is currently evaluating opportunities for income generating real estate development on publicly-owned sites within and adjacent to the future Central Waterfront Park. HR&A is conducting a market scan and comparative analysis of park oriented development to identify the likely revenues associated with a variety of uses on site. The firm is also conducting a residual land value analysis to determine the highest and best use for each site and the likely range of gross proceeds to the City. Because the City may face restrictions on the disposition of public land, HR&A is also testing the returns from alternative disposition structures (e.g. ground lease, joint venture) to identify the structure that maximizes returns to the City subject to its use, capital investment, and ownership priorities.

Team Background and Experience

Paul Ries

Principal in Charge – Lead Designer

ahha! architecture

Paul is a founding member and managing principal of ahha! architecture, llc,. He is a St Petersburg native with over 30 years of public and private design, development, and project management experience. His primary professional focus is development projects with community based goals, forward thinking on how we inhabit our cities and where best to put capital improvement money.

As principal in his architectural firm, Paul is responsible for initial project strategy, design, and developing strategies for bringing together community; implementing public outreach where required. Paul is well known for being able to work with diverse groups of stakeholder s and multiple consultants bringing all parties to accord and shared ownership in the project design.

Past project experience includes: land use planning and entitlement management; master planning, strategy, feasibility studies, and design guidelines; community enablement, historic preservation and adaptive reuse; building design, and all facets of project delivery.

Projects designed and/or managed by Paul range in construction cost from less than $50,000 to over $30,000,000

project experience

Eastbank Esplanade Waterfront Walkway, Boathouse and Upland Development
Portland, OR

Ko-Falen Cultural Center
Bamako, Mali, West Africa

The Dunbar Multi-Family
St Petersburg, FL

The Historic YMCA Development
Concepts and Feasibility Study
St Petersburg, FL

Columbia Center Library and Learning Center, St Helens, OR

Squatter Settlement Relocation and Living Plan for the LaPintana Neighborhood
Santiago, Chile

Grain Store Waterfront Revitalization and Adaptive Reuse
Dunedin, NZ

Falcon Art Community Workshops,
Portland, OR

Centennial Mills Development
Feasibility and Design, Portland, OR

The Desert National Wildlife Refuge Visitor Center
Mojave Desert, NV

NE Community Policing Precinct
Portland, OR.

Community Reconstruction Guidelines to Rebuild without Relocation
Tepito, Mexico City

education

Massachusetts Institute of Technology, USA
Master of Architecture

University of Florida
Bachelor of Design

architectural licenses

Florida, Oregon, Washington, Hawaii, NCARB (national certification)

awards and publications

- 1996 Governor's Livability Award for the Walnut Park Community Policing Center
- First Prize, Open House International Design Competition, "Housing Futures, People and Place" !Viva Tepito!
- The Emergence of Community in "Housing Without Houses", by Nabeel Hamdi, Van Nostrand Reinhold
- "Bamako to Timbuktu ~ and back again" a Journey through the heart of Mali two weeks before the coup.
  Scheduled for Publication; Spring, 2015

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. WITH CURRENT FIRM
Paul Ries	**Lead Designer, Principle in Charge**	**35**	**19**

15. FIRM NAME AND LOCATION *(City and State)*

AHHA! ARCHITECTURE, LLC ST. PETERSBURG, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

Massachusetts Institute of Technology, USA, Master of Architecture
University of Florida, Bachelor of Design

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

architectural licenses

Florida, Oregon, Washington, Hawaii, NCARB (national certification)

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

- 1996 Governor's Livability Award for the Walnut Park Community Policing Center
- First Prize, Open House International Design Competition, "Housing Futures, People and Place" !Viva Tepito!
- The Emergence of Community
  in "Housing Without Houses",
  by Nabeel Hamdi, Van Nostrand Reinhold
- "Bamako to Timbuktu ~ and back again" a Journey through the heart of Mali two weeks before the coup.
  Scheduled for Publication;
  Spring, 2015

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: ***Eastbank Esplanade, Phase 1 & 2, Portland OR***

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2005-6** — CONSTRUCTION (If applicable): **2005-6**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

$16m public bikeway, and linear waterfront park. Extensive hardscape, plaza elements, elevators, handicapped access, floating walkways, docks, lighting, and extensive landscape. Design and management of various portions of each phase.

b.

(1) TITLE AND LOCATION *(City and State)*: **NEW ZEELAND LOAN AND MERCANTILE BUILDING, BUNEDIN, NZ**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2014** — CONSTRUCTION (If applicable): **(ongoing) 2017**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

x☒ Check if project performed with current firm

Master planning, Waterfront Park, Over-Water Structures, $10m total project. Paul is prime design consultant.

c.

(1) TITLE AND LOCATION *(City and State)*: **CENTENNIAL MILL, PORTLAND OR**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2005** — CONSTRUCTION (If applicable): **N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Prime Design Consultant, Master planning, Tie into waterfront park system, Overwater Structures, pier analysis, $37m total project development budget.

d.

(1) TITLE AND LOCATION *(City and State)*: **FORT WAINWRIGHT MASTER PLAN, FAIRBANKS, AK**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2005-6** — CONSTRUCTION (If applicable): **N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Master Planning, Multiple agencies, stakeholders,

e.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Ellis Curry
Principal - Project Management

ahha! architecture

Descended from pirate 'salvagers', Ellis is a fourth generation native Floridian with extensive knowledge of the Tampa Bay area where he grew up and now calls home. A lifetime of experiences and observations enjoying the Sun Coast (formerly known as the "Pirate Coast") gives an indigenous and rare understanding that provides valuable insights in to the people, environment, and unique requirements of this colorful region.

Ellis attended the University of Florida and received his Masters degree in Architecture with an emphasis on design in Florida. This formal Florida education complimented his experience growing up here and sealed his relationship to the area.

Settling in the Tampa Bay area and raising a family, Ellis now has more than 25 years of commercial, retail, and educational design experience throughout Central Florida. This experience ranges from simple additions to the redesign of existing campus renovations to master planning entire new campuses. This depth of knowledge provides comprehensive solutions that are much more than the sum of their parts.

In particular, the educational design experience reveals the importance of local knowledge, customs and the ability to architecturally communicate it to a community. Architecture is a spatial language that has unique dialects for each community; knowing how to speak them are the heart and soul of a successful project.

A relentless problem solver, Ellis believes that this local knowledge is the foundation of a successful architectural design and he immerses himself into a project to create that optimal solution.

education

University of Florida
Master of Architecture

University of Florida
Bachelor of Design

architectural licenses

Florida

interior design licenses

Florida

project experience

USF Family Center
University of South Florida
Tampa, Florida

Barrington Middle School new campus
Hillsborough County Public Schools
Lithia, Florida

Lakeland Electric & Water Field Services
Training Facility Renovations & Additions
Lakeland, Florida

Sarasota Bradenton International Airport
FAR Part 150 Noise mitigation Program
Sarasota, Florida

Davenport Post Office Caminiti
United States Postal Service
Davenport Florida

Tinker Elementary School new campus
MacDill Air Force Base
Tampa, Florida

Stowers Elementary new campus
Hillsborough County Public Schools
Lithia, Florida

Harrison Center for the Visual & Performing Arts
Polk County Public Schools
Lakeland, Florida

Children's Home Society Emergency Shelter
Children's Home Society of Florida
Sebring, Florida

Exceptional Center renovation & addition
Hillsborough County Public Schools
Tampa, Florida

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Ellis Curry	**Project Manager**	**25**	**4**

15. FIRM NAME AND LOCATION *(City and State)*

Ahha! architecture, llc St. Petersburg FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

- University of Florida Master of Architecture
- University of Florida Bachelor of Design

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

architectural licenses

Florida

interior design licenses

Florida

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

USF Family Center, University of South Florida, Tampa FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

b.

(1) TITLE AND LOCATION *(City and State)*

Barrington Middle School, Hillsborough County Public Schools, Lithia, FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

c.

(1) TITLE AND LOCATION *(City and State)*

Harrison Center for the Visual & Performing Arts, Polk County Public Schools, Lakeland FL

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

d.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Tom Hamann

Senior Advisor

ahha! architecture

Tom brings over 40 years of experience to the project team. He has worked with a wide range of public clients: cities, counties, states, and the federal goverment for over 23 years. He has expertise in coordinating teams and developing integrated design with the team members. He brings a clear understanding of project scoping and project requirements for meeting the needs of public clients. His experience includes working with the public at large, public committees, approval committees, groups of agencies occupying the same facility, and a wide variety of permitting agencies. His extensive background includes programming, feasibility studies, site assessments, master planning, contract documentation, specifications, value engineering, contract administration, and construction administration. He has expertise in renovation of facilities for public clients and master planning their properties. He is trained in the practical applications of project sustainability and energy efficiency.

Toms expertise and experience will guide the coordination of the team, integrating their various skills and expertise, and assuring the City's program, requirements, and needs are met.

education

University of Oregon
Bachelor of Architecture

architectural licenses

Oregon, Washington,
Arizona, California

awards and publications

- DNR PDX Award (Tualatin River National Wildlife Refuge)
- Silver Award For Architecture, Portland Design Festival (Tualatin River National Wildlife Refuge)
- Governor's Livability Award (US Coast Guard Housing; Mission Creek Housing)
- National Navy Award for Design (Comprehensive Neighborhood Plans, Subase Bangor)
- Gold Nugget Award (US Coast Guard Housing; Main Street Village; One Jefferson Parkway; Mission Creek Housing)

affiliations

- American Institute of Architects

project experience

Eastbank Phase III
Waterfront Park with public review committee and public meetings
Portland, OR

Bureau of Land Management National Interagency Fire Center
Master Plan for 10 federal agencies on same site
Boise, Idaho

National Park Service Paradise Inn Annex
Review and analysis of historic landmark structure
Mt Rainier National Park, Washington

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Tom Hamann	**Senior Advisor**	**40**	**1**

15. FIRM NAME AND LOCATION *(City and State)*

Ahha! architecture, llc, St. Petersburg FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

BA Architecture

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Architect – Oregon, Washington, Arizona, California

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

- DNR PDX Award (Tualatin River National Wildlife Refuge)
- Silver Award For Architecture, Portland Design Festival (Tualatin River National Wildlife Refuge)
- Governor's Livability Award (US Coast Guard Housing; Mission Creek Housing)
- National Navy Award for Design (Comprehensive Neighborhood Plans, Subase Bangor)
- Gold Nugget Award (US Coast Guard Housing; Main Street Village; One Jefferson Parkway; Mission Creek Housing)
- American Institute of Architects

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Eastbank Phase III, Portland OR

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Waterfront Park, with public review committee and public meetings

b.

(1) TITLE AND LOCATION *(City and State)*: BUREAU OF LAND MANAGEMENT NATIONAL INTERAGENCY FIRE CENTER, BOISE ID

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Master Plan for 10 agencies on same site

c.

(1) TITLE AND LOCATION *(City and State)*: NATIONAL PARK SERVICE PARADISE INN ANNEX ,MT RAINIER NATIONAL PARK, WASHINGTON

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Review and analysis of historic landmark structure

d.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Christian Steinbrecher

ahha! architecture

Project Management / Constructability Review
Cost/Scheduling/Risk Analysis/Quality Assurance - Quality Control

Christian is a Senior Project Manager/ Controls & Cost Expert. His experience has spanned 30+ years and has covered all of the major facets of the construction industry: management, design and construction. He has been on all sides of the industry; owner, consultant and contractor.

Christian has been involved with parks, new buildings, renovations, industrial processes, rail, marinas, overwater projects, waterfront and transportation. His career has taken him from Washington DC, to Atlanta, to Omaha, to Colorado Springs, to San Diego up through Portland and Seattle to Kodiak, AK.

Mr. Steinbrecher has a significant resume that includes owner's representative /construction management services, cost and value engineering as well as plans and specifications expertise. He has been responsible for the development and management of major building projects including as parking garages, public facilities, plazas and parks, and public works projects such as bridges and infrastructure. These projects include the Rose Garden Arena, Pioneer Place and the Eastbank Esplanade.

project experience

Eastbank Esplanade Program
Linear Waterfront Park
Portland, OR

Red Lion Hospitality Expansion
$500mm 4 facility Western US
California and Colorado

Astoria Holdings Waterfront Renovation
Industrial Waterfront Renovation
Astoria, Oregon

Low Income Housing
8 Facility $10mm program
Portland, OR

Pioneer Place Public Improvements
Parking Garage, Street and Utilities
Portland, OR

Legal Expert Support
Various
Portland, OR

Heavy In-Water Construction
Major Pile Foundations
Seattle, Wa & Washington DC

Condominium Defects
Various
Portland and Corvallis, OR

DOE Truck Stop Electrification
Support for idle free locations
50 locations nationwide

South Waterfront Park
Riverfront Park Improvements
Portland, OR

Pioneer Road Improvements
Real Estate Development Support
Ridgefield, WA

education

University of Maryland
Bachelor of Civil Engineering

Georgia Institute of Technology
Master of Civil Engineering

engineering licenses

Registered Professional Engineer:
Washington and Oregon

awards and publications

- 2011 ASCE Oregon Engineer of the Year
- DJC Top Project 2012
- DJC Monthly Concept to Completion Monthly Column
- ASCE Oregon Infrastructure Report
- Op-Ed Oregonian
- Lecture Subjects; Project Controls and Project Scheduling

affiliations

- Coastal Oceans and Ports Institute
- American Society of Civil Engineers
- Pacific Coast Congress of Harbormasters and Port Managers
- American Association of Cost Engineers

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
CHRISTIAN STEINBRECHER	Quality Assurance, Quality Control, Cost and Schedule	30	2

15. FIRM NAME AND LOCATION *(City and State)*

ahha! architecture, llc

16. EDUCATION (DEGREE AND SPECIALIZATION)

- University of Maryland
  Bachelor of Civil Engineering
- Georgia Institute of Technology
  Master of Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Registered P.E. Washington and Oregon

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

American Society of Landscape Architects (ASLA)
Highline Botanic Garden Foundation; Board of Directors

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Eastbank Esplanade Program, Portland OR

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Linear Waterfront Park

b.

(1) TITLE AND LOCATION *(City and State)*: EASTBANK PHASE III

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Master Planning, Waterfront Park, Large Stakeholder Group, Over Water Structures, Signature Design.

c.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

d.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Raphael Goodblatt

Principal – Code Review and Compliance

ahha! architecture

Raphael is a founding member and principal of ahha! architecture, llc. He has over 20 years of experience as an architect and is knowledgeable and experienced with all building occupancies and construction types including hotels, retail, Schools, Daycares, Hazardous buildings, Changes of Occupancy, Hospitals and multifamily residential.

As principal, Raphael is responsible for design and management of projects, development feasibility, project delivery, and the code compliance analysis on all projects.

Raphael has written and presented public presentations explaining the building code and the local permit process to professionals and homeowners in seminar and lecture type settings throughout the Pacific NW.

project experience

Cedar Sinai Park,
Assisted Living Facility
Portland, OR

Portland Public Schools
Portland, OR

Sacred Heart
Assisted Living Facility
Portland, OR

Apex Chiropractic Clinic
Portland, OR

education

University of Oregon
Master of Architecture

UCLA
Bachelor of Arts - Psychology

architectural licenses

Oregon

certifications

- A-level Plans examiner
- 1 and 2 family plans examiner
- Accessibility reviewer
- ATC-20 Post Earthquake Inspector
- ATC-45 Post Wind Storm Inspector

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME: **Raphael Goodblatt**

13. ROLE IN THIS CONTRACT: **Code Compliance, Principle**

14. YEARS EXPERIENCE: a. TOTAL **25** b. WITH CURRENT FIRM **4**

15. FIRM NAME AND LOCATION *(City and State)*

ahha! architecture, llc

16. EDUCATION (DEGREE AND SPECIALIZATION)

University of Oregon, Masters of Architecture
UCLA, Bachelor of Arts - Psychology

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

architectural licenses

Oregon

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

certifications

- A-level Plans examiner
- 1 and 2 family plans examiner
- Accessibility reviewer
- ATC-20 Post Earthquake Inspector

ATC-45 Post Wind Storm Inspector

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: ***Cedar Sinai Park Assisted Living Facility, Portland OR***

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

b.

(1) TITLE AND LOCATION *(City and State)*: **PORTLAND PUBLIC SCHOOLS, PORTLAND OR**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

c.

(1) TITLE AND LOCATION *(City and State)*: **SACRED HEART ASSISTED LIVING FACILITY, PORTLAND OR**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

d.

(1) TITLE AND LOCATION *(City and State)*: **APEX CHIROPRACTIC CLINIC, PORTLAND OR**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

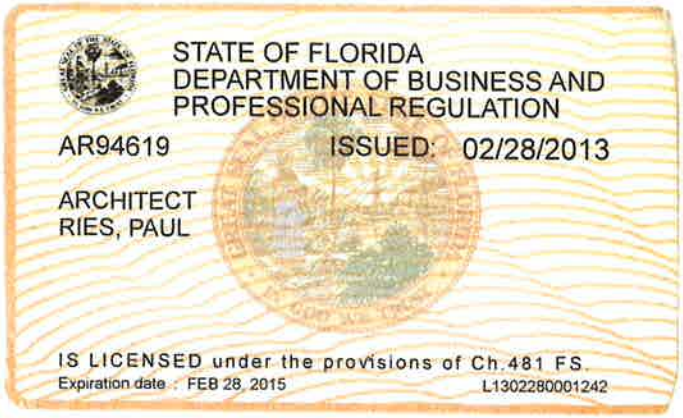
e.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

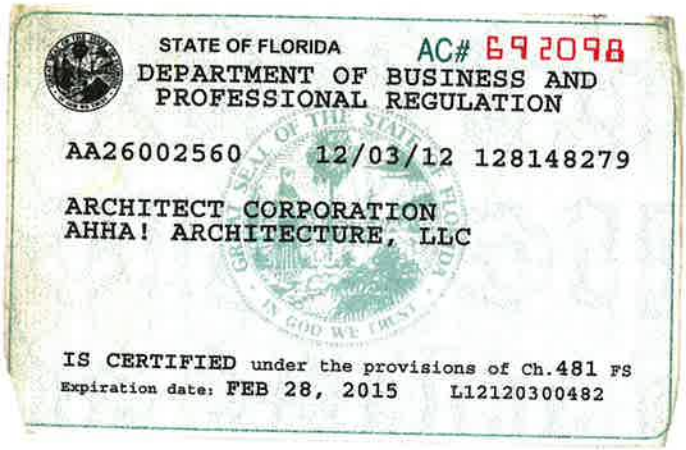


STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND
PROFESSIONAL REGULATION

AR94619 ISSUED: 02/28/2013

ARCHITECT
RIES, PAUL

IS LICENSED under the provisions of Ch.481 FS.
Expiration date: FEB 28, 2015 L1302280001242



STATE OF FLORIDA AC# 692098
DEPARTMENT OF BUSINESS AND
PROFESSIONAL REGULATION

AA26002560 12/03/12 128148279

ARCHITECT CORPORATION
AHHA! ARCHITECTURE, LLC

IS CERTIFIED under the provisions of Ch.481 FS
Expiration date: FEB 28, 2015 L12120300482

State of Florida
Department of State

I certify from the records of this office that AHHA! ARCHITECTURE, LLC, is a limited liability company organized under the laws of the State of Florida, filed on November 15, 2012, effective January 1, 2013.

The document number of this company is L12000144820.

I further certify that said company has paid all fees due this office through December 31, 2014, that its most recent annual report was filed on March 26, 2014, and its status is active.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Twenty-sixth day of March, 2014

Ken Detzner

Secretary of State

Authentication ID: CC1853489761

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

https://efile.sunbiz.org/certauthver.html

TAMPA PORT AUTHORITY

Small Business Enterprise Certification

Ahha! Architecture, LLC

Federal ID #: 45-4897200

Services Provided: Architect-Engineer & Other Professional Design Services

Valid from 10/28/2013 to 10/27/2014

Donna Casey

Procurement & Small Business

Please note this certificate is valid only with the Tampa Port Authority.
It is not reciprocal with the City of Tampa or Hillsborough County and may not be reciprocal with any other local governmental agency.

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Licensee Information

Name:	**CURRY, ELLIS REXWOOD (Primary Name)**
	(DBA Name)
Main Address:	**3608 RIVER GROVE DR** **TAMPA Florida 33610**
County:	**HILLSBOROUGH**
License Mailing:	
LicenseLocation:	

License Information

License Type:	**Architect**
Rank:	**Architect**
License Number:	**AR0014205**
Status:	**Current,Active**
Licensure Date:	**07/31/1992**
Expires:	**02/28/2015**

Oregon

State Board of Examiners for Engineering & Land Surveying
670 Hawthorne Ave. SE, Suite 220
Salem, OR 97301
(503) 362-2666
Fax (503) 362-5454
E-mail: osbeels@osbeels.org

April 24, 2014

Individual ID: 50219

CHRISTIAN F. STEINBRECHER
53195 W. WESTGATE DR. #225
PORTLAND, OR 97221

Dear CHRISTIAN F. STEINBRECHER:

The Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS) received your biennial renewal payment. Thank-you for renewing your professional registration(s). The attached pocket card confirms your new expiration date for your Oregon professional registration. In addition to checking the date of your seal, the Board would like to take this opportunity to remind its registrants to periodically check the Board's Web site at www.oregon.gov/OSBEELS/ for the latest revisions to the Oregon Administrative Rules (OARs).

For instance, in July 2008, the Board adopted language to allow for digital signatures as an alternative to a handwritten signature in permanent ink. Please note that OAR 820-010-0620(5) allows for a digital signature as an **optional alternative** to a handwritten signature; therefore a seal is still required and an "electronic" signature is not permissible.

The term *digital signature* describes a signature system applied to an electronic document that provides significant added security, authentication, and/or encryption. For further information on the process, please visit the OSBEELS Web site. There you can access a document entitled *Digital Signatures for Engineering Documents,* written by Ron Singh, PLS, and dated September 30, 2008. Click the Resources link on the right side of the home page.

As always, the Board office is a resource for you to contact if questions arise about your professional activities.

Oregon State Board of Examiners
for Engineering and Land Surveying

CHRISTIAN F. STEINBRECHER

Registered As	Cert. #	Status	Expires
Professional Engineer	15927PE	Active	06/30/2016

State of Washington
DEPARTMENT OF LICENSING
ENGINEER PROGRAM
P O Box 9025
Olympia, WA 98507

ADDRESS SERVICE REQUESTED

ENG 438

COLUMBIA RIVER PORT ENGINEERS,
CHRISTIAN F STEINBRECHER
6161 SW SALMON ST
PORTLAND OR 97221

A REMINDER FROM THE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS

WAC 196-27-020 FUNDAMENTAL CANONS AND GUIDELNES FOR PROFESSIONAL PRACTICE.

(2) REGISTRANTS SHALL PERFORM SERVICES ONLY IN AREAS OF THEIR COMPETENCE.

REGISTRANTS SHALL NOT AFFIX THEIR SIGNATURES OR SEALS TO ANY PLAN OR DOCUMENT DEALING WITH SUBJECT MATTER IN WHICH THEY LACK COMPETENCE BY VIRTUE OF EXPERIENCE OR TO ANY SUCH PLAN OR DOCUMENT NOT PREPARED UNDER THEIR SUPERVISORY CONTROL.

STATE OF WASHINGTON
PROFESSIONAL ENGINEER
CIVIL

COLUMBIA RIVER PORT ENGINEERS,
CHRISTIAN F STEINBRECHER
6161 SW SALMON ST
PORTLAND OR 97221

CERT/LIC NO.	EXP. DATE
19555	05/15/2016

Pat Kohler
Pat Kohler, Director

STATE OF WASHINGTON

DEPARTMENT OF LICENSING – BUSINESS AND PROFESSIONS DIVISION

THIS CERTIFIES THAT THE PERSON NAMED HEREON IS AUTHORIZED, AS PROVIDED BY LAW, AS A

PROFESSIONAL ENGINEER
CIVIL

COLUMBIA RIVER PORT ENGINEERS,
CHRISTIAN F STEINBRECHER
6161 SW SALMON ST
PORTLAND OR 97221

Cert/Lic No.	Issued Date	Expiration Date
19555	02/23/1981	05/15/2016

Pat Kohler
Pat Kohler, Director

PL-630-159 (R/6/13)

STATE OF OREGON
BOARD OF ARCHITECT EXAMINERS

Lic.No.	Issue Date	Exp. Date
4937	3/11/2005	**12/31/2015**

Raphael Aaron Goodblatt
RAG Architecture, L.L.C.
615 SE Alder
Portland, OR 97214

Signature

This is your certificate of registration/renewal. Please review it carefully and notify the Board of any corrections.

You are required to notify the Board, in writing, within 60 days of any change in contact information. An architect's professional stamp must include the city and state of the principal office location.

OREGON BOARD OF ARCHITECT EXAMINERS
205 Liberty St. NE, Suite A
Salem, OR 97301
Phone: (503) 763-0662
Fax: (503) 364-0510
http://www.orbae.com

Scott Boodman
CEO

New Quarter

Scott Boodman's lifelong interest is in the interplay between human evolutionary forces, human psychology, and the relationship between cultural anthropology to market forces. Scott uses his expertise in this area to assist his real estate development clients with developing innovative strategies for maximizing the economic potential of existing and potential development opportunities.

Scott's company, New Quarter, Inc. is a full service commercial real estate brokerage firm. His primary clientele, however, are private and closely held equity firms that focus on purchasing and revitalizing existing retail and mixed use developments in the private sector, and as public private joint ventures.

Using a system of sophisticated algorithms and custom designed search engines, New Quarter is able to mine the vast amount of public and private data that has only recently become accessible to create very detailed and specific market segmentation models, real time location accurate market boundaries, predictive models for current and future space demand, and rent trends for his clients.

Scott's past experience includes three decades as principle of Chaparral Creek, Inc. a California design-build firm specializing in historical restoration of public and private buildings. Scott also owned Aaron's Environmental Design, a landscape construction and maintenance company that was responsible for the care of military bases from Hawaii to Maryland

His clientele includes:
AIMCO
Shea Companies
Shawntana Development
US Marines
Mission Viejo Companies
Irvine Companies
Lusardi Construction

education

Cal Poly Pomona,
Business Management

Georgetown
School of Business,
Market Economics

licenses

Real Estate Broker: Florida
General Contractor: California
Landscape Contractor: California

affiliations

- Florida Master Gardener
- Certified Commercial Investment Member Designee

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Scott Boodman	**Brokerage, Economic Analysis, Development Strategy, Public Outreach Coordinator**	**41**	**1**

15. FIRM NAME AND LOCATION *(City and State)*

New Quarter, Inc. Casselberry, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

Cal Poly Pomona, Business Management
George Town, Business Economics
Seminole State College, Statistic Analysis

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

C-27 Landscape Contractors License, California
B-1 General Contractors License, California
Commercial Real Estate Broker, Florida

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

CCIM Designee,

CBC Emerging Broker

California Pest Control Operator

Florida Master Gardener

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: ***250 North Orange, Orlando FL***

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2014** — CONSTRUCTION (If applicable): **NA**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Developer. $250m mixed use development, infill project. Developed financial fesablity anylsis, market assement, put together equity partners, arranged financing, negotiated with landowners, city, water management district for development rights and permits.

b.

(1) TITLE AND LOCATION *(City and State)*: **EAGLE RIDER, ORLANDO FL**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2013** — CONSTRUCTION (If applicable): **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

c.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

d.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e.

(1) TITLE AND LOCATION *(City and State)*

(2) YEAR COMPLETED — PROFESSIONAL SERVICES — CONSTRUCTION (If applicable)

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

George S. Berean

Senior Advisor

WATG

George Berean brings an international approach to design and management, which is based on his extensive experience throughout the Pacific Rim, his role in opening WATG's London office, his past experience as managing principal of the Hawaii office and his worldwide network of contacts.

George has been a guest speaker for numerous international, national and regional events covering topics such as cultural heritage preservation, exporting design services, resort design considerations, the changing market place in Asia and an introduction to Feng Shui. His 30-plus years of practice on an international scale allow him to be of unique service to WATG clients.

George stays actively involved in the design and management of new projects including: hotels, resorts, condominiums, marinas, retail, golf clubhouses, renovations and mixed-use projects.

project experience

Huafa New Century City
Zhuhai, China

New Century Jinming Pond Hotel
Kaifeng, China

New Century Nine Dragon Lake Resort
Ningbo, China

JW Marriott Hotel Beijing
Beijing, China

The Ritz-Carlton, Beijing
Beijing, China

InterContinental Moon Valley, Beijing
Beijing, China

Hilton Sanya Resort and Spa
Sanya, Hainan, China

Crowne Plaza Hotel, Sanya
Sanya, Hainan, China

Hyatt Regency Sanya Resort
Sanya, Hainan, China

Park Hyatt Ningbo
Ningbo, China

New Century Qiandao Lake Resort
Hangzhou, China

Qingdao Seaview Garden Hotel
Qingdao, China

Egret Lake Town Center, Huizhou
Huizhou, China

Zhongshan Huafa Ecology Park
Zhongshan, China

Lingshui Qingshui Bay Resort
Qingshui Bay, China

Sheraton Hurghada
Hurghada, Egypt

Seocho Dong Towers
Seoul, Korea

Kangwon Casino Resort
Kangwon, Korea

Sheraton Brisbane
Brisbane, Australia

Marina Herzlia
Israel

Hyatt Regency Coolum
Queensland, Australia

Sheraton Hobart
Tasmania, Australia

Green Island Resort
Taiwan

Taitung City Hotel Resort
Taitung City, Taiwan

Shilla Cheju Hotel
Cheju Island, Korea

Oak Valley Destination Resort
Kang-Won-Do, Korea

Stonewall Jackson Resort
Roanoke, West Virginia

Grand Hyatt Bali
Bali, Indonesia

education

University of Washington
Bachelor of Arts, Architecture

architectural licenses

Washington, Hawaii, Nevada
NCARB certification

affiliations

- International Hotel Association
- Pacific Asia Travel Association
- Tau Sigma Delta, National Architect Honor Society
- International Council of Shopping Centers
- Asia Pacific Council of Architects

honors / awards

- China Hotel Starlight Award, Best Boutique Hotel in China, New Century Jinming Pond Hotel
- Aga Khan Award for Architecture, Rantau Abang Visitor Center and Tanjong Jara Beach Hotel, Malaysia
- Institute of Architects Annual Awards Gold Medal of Queensland, Royal Hyatt Regency Coolum International Resort and Spa
- American Automobile Association Five Diamond Award, Four Seasons Hotel Newport Beach, California
- AIA Design Awards Award of Merit, Hilton Sanya

Deborah Rosenblum, AIA, LEED AP

Vice President, Client Senior Leader

WATG

Deborah is a Honolulu based design client leader working between WATG's London and Honolulu offices. She focuses on creating unique guest and visitor experiences in resort projects throughout Africa, the Middle East, and the South Pacific. With an emphasis on hospitality since 1990, her range of skills include: concept through design development; documentation and construction administration as well as extensive expertise in design, contract documentation and property improvement evaluation for large-scale projects.

Her leadership roles have varied from design through project management, always with an emphasis on creating one-of-a-kind destinations. She has recently been focusing on directing integrated architecture, interior design and landscape projects, leading projects through construction to provide full-turn key project supervision for hospitality clients.

project experience

Oman Convention & Exhibiton Center
Muscat, Oman

Hilton Al Houara Coastal Resort
Tangier, Morocco

Al Houara Golf Racquet & Country Club
Tangier, Morocco

The Ritz-Carlton Muscat
Bandar Jissah, Oman

Foshan Yun-Dong Hai Resort
Foshan, Guangzhou Province, China

Al Jurf Palace Resort
Abu Dhabi, UAE

Hilton Waikoloa Village Owner's Suites, Palace Suites & Royal Suites
Waikoloa, Big Island, Hawaii

Kapalua Central Resort
Kapalua, Maui, Hawaii

The Fairmont Kea Lani Resort & Spa
Wailea, Maui, Hawaii

Grand Wailea Resort and Spa
Wailea, Maui, Hawaii

Grand Hyatt Kauai Suites & Guestrooms
Poipu Beach, Kauai, Hawaii

Miraval Spa & Resort
Kapalua, Maui, Hawaii

Resort Quest Waikiki Beach Hotel
Honolulu, Oahu, Hawaii

Private Residence at Kaiser Estate
Portlock, Oahu, Hawaii

The Ritz-Carlton / J.W Marriott Beijing
Beijing, China

Lulu Grand Hyatt Hotel
Kochi, India

Private Residence
Kona, The Big Island, Hawaii

Renaissance Ilikai Renovation
Honolulu, Oahu, Hawaii

Chevron Renaissance Condominiums & Retail
Surfer's Paradise, Australia

Nexus Naga Casino Hotel
Phnom Phen, Cambodia

Nexus Borneo Resort
Kota Kinabalu, Malaysia

Mandarin Oriental Hotel
Kuala Lumpur, Malaysia

Senayan Square Serviced Apartments
Jakarta, Indonesia

Leela Palace Bombay
Bombay, India

Maui Memorial Medical Center Expansion
Wailuku, Maui, Hawaii

Hilton Hawaiian Village
Honolulu, Oahu, Hawaii

education

University of Texas at Austin,
Master of Architecture

University of Virginia,
Bachelor of Arts, Planning and Urban Design

architectural licenses

Hawaii

accreditations

Leadership in Energy and Environmental Design (LEED) Accredited

affiliations

American Institute of Architects (AIA)
University of Hawaii, School of Architecture, Advisory Board
Urban Land Institute

honors / awards

AIA Honolulu Merit Award, Umeno Residence
BIA Honolulu, Winner, Offices of Dr. Morita
BIA Honolulu, Grand Winner, Renaissance Ilikai Renovation
AIA Honolulu, Jack C. Lipman Award, The John Young Gallery

Chris Panfil

Vice President
Director of Strategic Planning & Urban Design

WATG

Chris is a master planner and urban designer whose work has focused on resort and tourism markets world wide. His professional experience exceeds 17 years and includes master planning and urban design work for new communities, resort towns and villages, as well as planning strategies for cultural tourism destinations and regional development initiatives. He has worked throughout Europe, in the Middle East, Asia, North and East Africa, as well as in Brazil.

Chris brings a global perspective to every project and provides leadership through strategic development advice that maximises clients' development objectives. His design philosophy embraces financially viable developments that deliver value to clients and that respond creatively to the history, culture and environment of their settings.

Prior to WATG, Chris was Managing Director of Hart Howerton's London Office. Previous experience includes working for Sasaki Associates in Boston, USA and for the London School of Economics, where he managed the operations of the Cities Programme's professional consultancy.

project experience

Porto Montenegro
Montenegro

Asilah New Town
Asilah, Morocco

Arabian Gulf Waterfront
Arabian Gulf

Samara New Community
Samara, Russia

prior project experience

Arriyadh Historic Settlement Redevelopment
Riyadh, Kingdom of Saudi Arabia

Zanzibar Stonetown Seafront Redevelopment
Zanzibar, Tanzania

Emirates Palace Hotel District Plan
Abu Dhabi, UAE

Atum Cove Resort
Red Sea, Egypt

Yenkit Resort
Muscat, Oman

Elea Golf + Spa Resort
Paphos, Cyprus

Cabo Sao Roque
Natal, Brazil

The Gleneagles Hotel
Gleneagles, UK

Royal Prague Country
Prague, Czech Republic

education

Massachusetts Institute of Technology, USA | Master of City Planning / Master of Architecture

Princeton University, USA | Bachelor of Architecture

affiliations

American Planning Association

American Institute of Certified Planners

Urban Land Institute

other languages

German
French

Michael Brown, ASLA

Senior Associate
Senior Planner + Landscape Architect

WATG

Michael Brown, senior planner and landscape architect, brings to the team over 29 years of experience in landscape architecture and related fields. His experience includes resort hotel, resort residential, planning and designing parks, apartment and condominium communities, residential podium communities, and mixed use development in the USA, Asia, and the Middle East.

Having worked in arid, temperate, subtropical and tropical regions, Michael excels with plant materials and understands the importance of species-appropriate planting design. Color, texture, rhythm and mass are key influences in Michael's landscape design.

Michael takes great care to design within the context of the environment. History, place recognition, and local resources are all utilized in the design process to create a lasting, unique and valuable landscape for every project.

project experience

Galaxy Resort Casino
Macau, China

Yiti Seaside Resort Master Plan
Muscat, Oman

Penang Tradewinds Resort
Penang, Malaysia

Langkawi Tradewinds Master Plan
Langkawi, Malaysia

Taj Lands End
Mumbai, India

Eighth Wonder Casino Resort Master Plan
Kazakhstan

Shaza Hotel
Cairo, Egypt

Sahl Hasheesh
Red Sea, Egypt

Broken Top
Bend, Oregon

Disney's Grand Floridian Beach Resort
Lake Buena Vista, Florida

The Ritz-Carlton Kapalua
Kapalua, Hawaii

The Island Hotel (formerly Four Seasons)
Newport Beach, California

The Ritz-Carlton Huntington Hotel
Pasadena, California

Long Beach Ecological Resort
Cam Ranh Bay, Vietnam

Experience Prior to WATG:

The Esplanade, Theaters on the Bay
Singapore

The Paragon Shopping Mall
Singapore

Merlion Walk, Sentosa
Singapore

Fort Canning Country Club
Singapore

Jade Garden Resort Community
Bangalore, India

Bumi Serpong Damai Master Plan
Jakarta, Indonesia

Macadam Winter Garden
Tukwila, Washington

Point Defiance Waterfront Design Charette
Tacoma, Washington

education

Iowa State University, Ames, Iowa
Bachelor of Landscape Architecture

RMIT Royal Melbourne Institute of Technology, Melbourne, Australia
Urban Design

La Salle College of the Arts
Singapore

license

California Landscape Architect (#2971)

affiliations

American Society of Landscape Architects (ASLA)
Highline Botanic Garden Foundation; Board of Directors

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM

15. FIRM NAME AND LOCATION *(City and State)*

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: Casablanca Marina, Casablanca, Morocco

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Architecture, Interiors by Wimberly Interiors, Master Planning, Landscape
150 key luxury hotel, 8,000 sqm marina retail, 300 key tower hotel, 120 key four-star hotel

b.

(1) TITLE AND LOCATION *(City and State)*: Porto Montenegro Master Plan, Tivat, Montenegro

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Master Planning, Urban Design
28 hectare overall development site, 750 new luxury residential units, 416 hotel keys, 850 berth marina (full build out), 5,000 sqm additional retail

c.

(1) TITLE AND LOCATION *(City and State)*: Hawaii Convention Center

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

9.7 acres, 1,106,671 sq ft., 200,000-sq foot exhibit space, 207,426 square feet of meeting space in 51 meetings rooms, 36,000 square foot ballroom; 12 executive conference rooms, two presentation theaters; press room; teleconferencing center

d.

(1) TITLE AND LOCATION *(City and State)*: Royal Opera House - Muscat

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Eight hectares (20 acres) 1,000 seat concert hall (18,580 square meters/ 200,000 square feet); World-class opera house & concert theatre; auditorium; formal landscaped gardens

e.

(1) TITLE AND LOCATION *(City and State)*:

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: | CONSTRUCTION *(If applicable)*:

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Porto Montenegro Master Plan, Tivat, Montenegro		

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Adriatic Marinas	Tony Scholes	+382 (0) 32 661 005

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

Master Planning, Urban Design
28 hectare overall development site, 750 new luxury residential units, 416 hotel keys, 850 berth marina (full build out), 5,000 sqm additional retail
Beyond 2014 Porto Montenegro will continue to deliver on its vision in becoming the premier super yacht destination and home port in the Adriatic. Building on from the success of the established marina and residences, the established master plan provides the framework for the next phase of development for this prime waterfront property.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a.			
b.			
c.			
d.			
e.			
f.			

STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

BOARD OF ARCHITECTURE & INTERIOR DESIGN (850) 487-1395
1940 NORTH MONROE STREET
TALLAHASSEE FL 32399-0783

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STATE OF FLORIDA AC# 705210
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

AA26001244 12/14/12 120243256

ARCHITECT CORPORATION
WIMBERLY ALLISON TONG & GOO NA I

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BOARD OF ARCHITECTURE & INTERIOR DESIGN

SEQ# L12121400697

DATE	BATCH NUMBER	LICENSE NBR
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GOVERNOR

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STATE OF FLORIDA AC# 705244
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

IB26000862 12/14/12 120243257

INTERIOR DESIGN CORPORATION
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STATE OF FLORIDA

DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
BOARD OF ARCHITECTURE & INTERIOR DESIGN

SEQ# L12121400731

DATE	BATCH NUMBER	LICENSE NBR
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Expiration date: FEB 28, 2015

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IRVINE CA 92618

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GOVERNOR

KEN LAWSON
SECRETARY

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TAYLOR ENGINEERING, INC.

Delivering Leading-Edge Solutions

September 2, 2014

Mr. Paul Ries, Principal
AhHa! Architecture, llc
6822 22nd Avenue North, #334
St. Petersburg, FL 33710

Re: St. Petersburg Pier Design Team Selection Request for Qualifications

Dear Mr. Ries:

Taylor Engineering, Inc. (Taylor Engineering) is pleased to join your team on the submittal to the City of St. Petersburg for the redesign of the St. Petersburg Pier. Since 1983, Taylor Engineering has focused its attention on water-related challenges and the effects of water resource activities on the environment. Throughout its history, Taylor Engineering has remained true to its vision – be the best in developing leading-edge solutions to challenges in the water environment.

Taylor Engineering has successfully completed projects throughout the eastern and southern United States, Puerto Rico, and South America. The diverse nature of these projects range from design, permitting, and construction of marine facilities, stormwater installations, constructed wetland, shore protection projects, and dredged material management facilities to advanced mathematical modeling of complex water bodies for the design and evaluation of flood control and ecosystem restoration projects, bridges, jetties, breakwaters, channel deepening, and more.

Taylor Engineering is committed to providing the following services as a part of your team to the City of St. Petersburg:

- Structural studies and design for waterfront and marine facilities
- Civil engineering design and construction plans for waterfront and marine facilities
- Coastal engineering and modeling
- Environmental permitting and support services

We contend that few companies, if any, can match Taylor Engineering's combination of assets: our superb working relationship with local, state and federal agency personnel; our proven success with shoreline, dock, waterfront, marine structure, coastal and dredging projects; and, our dedicated Florida-based staff.

Sincerely,

Jonathan T. Armbruster, P.E.
Vice President, Waterfront Engineering

ARCHITECT - ENGINEER QUALIFICATIONS
PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION (City and State)

St. Petersburg Pier Design Team Selection Request for Qualifications

2. PUBLIC NOTICE DATE: **August 2014**

3. SOLICITATION OR PROJECT NUMBER: **NA**

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE: **Jonathan Armbruster, P.E., Vice President, Waterfront Engineering**

5. NAME OF FIRM: **Taylor Engineering, Inc.**

6. TELEPHONE NUMBER: **(904) 731-7040**

7. FAX NUMBER: **(904) 731-9847**

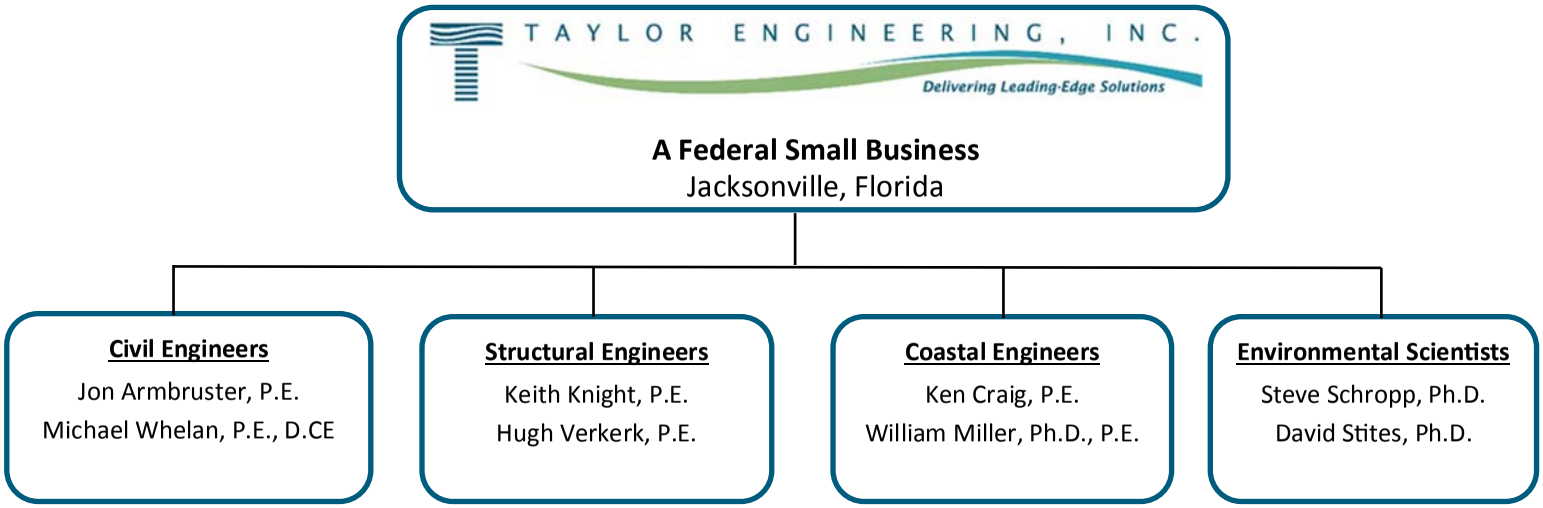
8. E-MAIL ADDRESS: **jarmbruster@taylorengineering.com**

C. PROPOSED TEAM (Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	(Check) J-V PARTNER	(Check) SUBCON-TRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.			X	**Taylor Engineering, Inc.** ☐ CHECK IF BRANCH OFFICE	10151 Deerwood Park Blvd., Bldg. 300, Suite 300 Jacksonville, FL 32256	Structural Engineering, Civil Engineering, Hydraulic Engineering, Water Resources Engineering, Waterfront Design and Engineering, and Environmental Services
b.				☐ CHECK IF BRANCH OFFICE		
c.				☐ CHECK IF BRANCH OFFICE		
d.				☐ CHECK IF BRANCH OFFICE		
e.				☐ CHECK IF BRANCH OFFICE		
f.				☐ CHECK IF BRANCH OFFICE		

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☒ (Attached)

Team Personnel



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Jonathan T. Armbruster, P.E.	**Civil Engineering**	**15**	**12**

15. FIRM NAME AND LOCATION *(City and State)*

Taylor Engineering, Inc., Jacksonville, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

M.S. / Environmental Hydrologic & Hydraulic Engineering
B.E. / Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

FL, AL, NY / Professional Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

As Vice President of Taylor Engineering's Waterfront Engineering group, Mr. Armbruster oversees efforts across a spectrum of activities from feasibility analysis through final design and construction-phase services for a range of projects including dredging projects, dredged material management, wetland construction, hydraulic control structures, port and waterfront facilities, marine structures, pile foundation structures, erosion control measures, and shore protection installations.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

Bahia Urbana Waterfront Redevelopment
San Juan, Puerto Rico

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2013	**2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Served as project manager for marine and waterfront engineering consulting and design services in the redevelopment of nearly two miles of waterfront in San Juan, Puerto Rico. The project team revitalized, retrofitted, or replaced aging and failing deep-water port infrastructure to support new mixed-use development including cruise passenger tourist attractions and commercial, residential, and civic developments. Marine structure services included evaluation of bulkheads, docks, and piers and design for new bulkheads, piers, mooring facilities, dredging, and other waterfront facilities.

b.

(1) TITLE AND LOCATION *(City and State)*

FPL St. Lucie Nuclear Power Plant: Discharge Canal Headwall Stabilization and Shoreline Project, St. Lucie County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2012	**2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project manager for marine structures engineering design and environmental permitting to protect the power plant's discharge canal and headwall from coastal erosion. Project included all phases of work from feasibility through construction engineering and inspection of an ocean seawall and an offshore breakwater. Additional work included engineering and construction-phase support for shoreline dune restoration and re-vegetation.

c.

(1) TITLE AND LOCATION *(City and State)*

Dubois Park Redevelopment
Palm Beach County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2010	**2010**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project manager for engineering design and permitting in the redevelopment of Dubois Park. Project included creation of approximately 24 visitor boat slips, development of a recreational snorkeling area, construction of improved and expanded shoreline stabilization bulkhead and riprap revetment, fixed docks to moor a life-rescue boat and a law enforcement vessel, as well as a floating dock to serve as a water taxi terminal.

d.

(1) TITLE AND LOCATION *(City and State)*

Florida School for the Deaf and Blind: Seawall and Shoreline Infrastructure Improvements, St. Augustine, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
Ongoing	**Ongoing**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project manager directing team to mitigate shoreline erosion, design and construct protective shoreline seawalls, and improve campus shoreline infrastructure including perimeter roadway, stormwater systems, and student waterfront access features. Project includes planning and landscape architecture, marine structures engineering, stormwater design, roadway design, and construction phase services.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Michael P. Whelan, P.E., D.CE	**Civil Engineering**	**19**	**9**

15. FIRM NAME AND LOCATION *(City and State)*

Taylor Engineering, Inc., Jacksonville, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

M.S. / Environmental Engineering
B.S. / Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

FL / Professional Engineer
FL / FDEP Stormwater Inspector
U.S. / Diplomate of Coastal Engineering

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

Mr. Whelan specializes in civil site engineering and construction administration for various government clients and private developers. He is responsible for the development of plans and specifications, construction administration, and construction inspection of Waterfront Group projects, which include marina development, beach renourishment, utilities relocations, and shoreline stabilization. In 2010, Mr. Whelan earned the title of Diplomate in Coastal Engineering (D.CE), from the American Society of Civil Engineers' Academy of Coastal, Ocean, Navigation, and Port Engineers.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*

Texas General Land Office, Rollover Pass Closure Feasibility Study Phase II, Bolivar Peninsula, Galveston County, Texas

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2013	**N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Developed a feasibility study to evaluate the potential effects of closing Rollover Pass, including a construction strategy for overall closure project. Developed overall project guidelines, and project phases to complete pass closure using steel sheet pile walls, geotextile bags, and local materials and local dredging equipment. Developed the methodology researching the air emissions standards for the Houston-Galveston-Brazoria Ozone Nonattainment Area, developing an estimate of the construction equipment type and operating time required to complete the construction project, estimating the current dredging requirements in the project area, and preparing written documentation describing the air quality benefits the project will provide.

b.

(1) TITLE AND LOCATION *(City and State)*

Avenida Menendez Seawall Design, Permitting, and Construction St. Augustine, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2014	**2014**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Engineer-of-record for construction of new seawall, designed to protect existing 1890's historical landmark seawall. As utility design engineer, coordinated the design and construction of the water, sewer, and stormwater utilities that pass through the historical seawall. Developed project design, specifications, and bidding. Project included historic preservation of a historically significant seawall and scour protection, installation of a new 1,800-foot seawall and waterfront promenade, utility system upgrades, and other flood protection measures within the historical preservation district of St. Augustine.

c.

(1) TITLE AND LOCATION *(City and State)*

City of West Palm Beach Waterfront Commons Palm Beach County, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2009	**2009**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Senior design engineer/project manager. Assisted in permit information gathering and preparation of an environmental resource permit application for the development of a waterfront park seaward of the Flagler Drive seawall for the City of West Palm Beach. Performed preliminary design of floating docks and fixed ramps for permit application submittal. Provided daily interaction and coordination of design issues between City's design team and contract manager at risk. Developed schematic and conceptual plans for floating dock designs for the development of funding estimates, and coordination of project with other project amenities including landscaping, utility services, annual boat show, and Flagler Drive relocation.

d.

(1) TITLE AND LOCATION *(City and State)*

Lantana Park Emergency Seawall Project Lantana, Florida

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
2009	**2009**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

As senior design engineer, provided construction and design engineering design support for emergency steel sheetpile seawall along Lantana Beach Park, which has severe beach erosion that endangers buildings near dune.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Kenneth R. Craig, P.E.	**Coastal Engineering**	**20**	**18**

15. FIRM NAME AND LOCATION *(City and State)*

Taylor Engineering, Inc., Jacksonville, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)

M.E. / Coastal and Oceanographic Engineering
B.S. / Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

FL, AL, LA, Puerto Rico / Professional Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

As Vice President of Coastal Engineering, Mr. Craig is responsible for the company's coastal engineering operations which at present involves nearly 60 separate task orders and a $4.5 million in backlog. He possesses a unique, experience-based skill set that spans a broad range of coastal zone issues. Mr. Craig provides managerial oversight to many of the company's largest coastal engineering projects. Mr. Craig's formal academic training focused on coastal process analyses (i.e., shoreline evolution and sediment transport, wave and hydrodynamic modeling) and their impacts on major shore protection projects. He frequently acts as project liaison to local, state, and federal agencies regarding project related issues such as design, permitting, and funding options. Mr. Craig currently serves as the chair of the Coasts, Oceans, Ports & River's (COPRI's) national Coastal Zone Management Committee.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Shore Protection Federal Documents
Various Counties in Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **Ongoing** | CONSTRUCTION (If applicable): **N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Mr. Craig has served as principal-in-charge, project manager, lead coastal engineer, quality control officer, and engineer-of-record for multiple shore protection projects in St. Lucie, St. Johns, Palm Beach, Volusia, Martin, Collier, Sarasota, Manatee, Walton and Okaloosa counties in Florida. Tasks have included engineering design plans, geotechnical investigations, permitting, construction observation, and monitoring on shore protection, environmental restoration, and navigation studies and projects for the U.S. Army Corps of Engineers and various local sponsors throughout Florida.

b.

(1) TITLE AND LOCATION *(City and State)*
Jupiter Inlet District General Engineering Services
Palm Beach County, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **Ongoing** | CONSTRUCTION (If applicable): **N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Since 2002, Taylor Engineering has served as the District Engineer to the Jupiter Inlet District (JID). As senior advisor, Mr. Craig oversees a wide variety of activities including maintenance of the north and south jetties (including all associated infrastructure) as well as the functionality of all aids to navigation under JID control. Coordinates annual sand trap dredging activities, annual seagrass surveys of the Loxahatchee River, monthly jetty inspections, and attends monthly Board meetings at the JID offices

c.

(1) TITLE AND LOCATION *(City and State)*
Bahia Urbana Waterfront Redevelopment
San Juan, Puerto Rico

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2013** | CONSTRUCTION (If applicable): **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Engineer-of-record for the marine components of this redevelopment project. The project team revitalized, retrofitted, and/or replaced aging and failing deep-water port infrastructure to support new mixed-use development including cruise passenger tourist attractions and commercial, residential, and civic developments. Project components included evaluation of existing marine infrastructure, value engineering for retrofit and replacement alternatives, and design of mooring dolphins to host a variety of vessels from historic replica tall ships to modern mega yachts, plus design of a pedestrian bridge in relatively deep water and floating dock berthing for seaplanes and water taxis.

d.

(1) TITLE AND LOCATION *(City and State)*
FPL St. Lucie Nuclear Power Plant Seawall
St. Lucie County, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2012** | CONSTRUCTION (If applicable): **2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Served in lead QA/QC role for this project to provide coastal and structural engineering design and environmental permitting for a seawall and breakwater/artificial reef to protect the nuclear power plant's discharge canal and headwall structure. Taylor Engineering staff members prepared design alternatives for the shoreline protection structure and reef.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
William Miller, Ph.D., P.E.	**Coastal Engineering and Modeling**	**18**	**9**

15. FIRM NAME AND LOCATION *(City and State)*
Taylor Engineering, Inc., Jacksonville, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)
Ph.D. / Coastal & Oceanographic Engineering
M.S. / Coastal & Oceanographic Engineering
B.S. / Naval Architecture & Marine Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
FL, GA / Professional Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)
Dr. Miller has a leading role in near shore and inlet hydrodynamics, hurricane surge, wave mechanics and loading, littoral processes, shoreline stability/protection, water quality in streams, estuaries, and marinas, sediment transport, and structure induced sediment scour; as well as engineering design of shore protection and navigation projects. His work includes the application of two-dimensional finite element models such as the U.S. Army Corps of Engineers' RMA2, RMA4, CGWAVE, and ADCIRC, the MIKE21 model suite, and the REFDIF, CGWAVE, and MIKE21 wave models.

19. RELEVANT PROJECTS

a.
(1) TITLE AND LOCATION *(City and State)*
Florida Department of Transportation (FDOT) District 2 Unknown Foundations Evaluation, Various Counties in Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **Ongoing** | CONSTRUCTION (If applicable): **N/A**

☒ Check if project performed with current firm

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
Project manager and lead engineer for the evaluation of tidal bridges with unknown foundation embedment depths. Develops and supervises development of hydraulic models; conducts bridge scour calculations for over 40 Phase 1 and 2 scour studies in FDOT District 2.

b.
(1) TITLE AND LOCATION *(City and State)*
Florida School for the Deaf and Blind Seawall St. Johns County, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2010** | CONSTRUCTION (If applicable): **Ongoing**

☒ Check if project performed with current firm

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
Developed coastal conditions estimates (water level, current speed, wave heights, scour, wave loads) for seawall design at the Florida School for the Deaf and Blind in St. Augustine, FL. Supervised application of 2-D hydrodynamic model to develop water levels and currents speeds at the site. Supervised 1-D wave model application to develop wave heights and periods for various wind speeds. Estimated wave loads and scour based on conditions. Presented results to client and neighboring property owners.

c.
(1) TITLE AND LOCATION *(City and State)*
Jacksonville Electric Authority (JEA) Flood Protection Feasibility Study Jacksonville, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2008** | CONSTRUCTION (If applicable): **N/A**

☒ Check if project performed with current firm

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
Supervised and coordinated coastal modeling for a study to develop a flood protection system to protect the JEA Northside Generating Station from storm surge and storm wave inundation. The modeling used ADCIRC to develop the storm surge inundations and STWAVE and WHAFIS to model wind generated waves. The final design water levels combined storm surge, wind setup, and wave crest effects. The final design reconciled storm surge return period and Hurricane intensity scale measurement schemes to determine the design water levels.

d.
(1) TITLE AND LOCATION *(City and State)*
FPL Turtle Excluding Net St. Lucie County, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2013** | CONSTRUCTION (If applicable): **N/A**

☒ Check if project performed with current firm

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
Lead hydraulics and hydrodynamics engineer for the design of a turtle barrier net protecting the cooling water intake canal of the FPL St. Lucie Power Plant. Developed and implemented the methodology for determining weight, current, and wind loads on the net under variable conditions of net fouling, up to and including 85% fouled. The structural engineers applied these loads in designing the support structure.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME: **Keith Knight, P.E.**

13. ROLE IN THIS CONTRACT: **Structural Engineering**

14. YEARS EXPERIENCE: a. TOTAL **17** b. WITH CURRENT FIRM **13**

15. FIRM NAME AND LOCATION *(City and State)*: **Taylor Engineering, Inc., Jacksonville, FL**

16. EDUCATION (DEGREE AND SPECIALIZATION): B.S. / Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*: FL, GA, TX, SC, Puerto Rico / Professional Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

Mr. Knight has 17 years of experience in the design and construction of marine, waterfront, and water control structures. His design experience includes ship terminals and port structures, waterfront parks, marinas, jetties, shoreline protection systems, dredging and dredged material management facilities, pedestrian bridges, vehicular bridges, and drainage control structures. His construction/inspection experience includes port structures, dry docks, marinas, bridges, bulk material handling systems, dredged material management sites, shoreline protection systems, and seawall inspections, among others. Mr. Knight's structural experience includes designs with carbon steel, stainless steel, timber, wood composites, concrete, vinyl, fiberglass (FRP), and aluminum.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Bahia Urbana Waterfront Redevelopment, San Juan, Puerto Rico**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2013** CONSTRUCTION (If applicable): **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Design of approximately 1,000 linear feet of steel sheet pile bulkhead, a 300-foot long pedestrian bridge, mooring dolphins, seaplane docking, and other shoreline improvements. Design included seismic loading on the bulkhead due to liquefaction of poor soils and wave loading on the pedestrian bridge. Project items included a steel sheet pile bulkhead with concrete cap, sacrificial anodes, bollards, fenders, soil anchors, concrete filled pipe piles, prestressed double-tee members, and tropical hardwood decking. Work includes load rating and repair of existing structures, seismic load determination for new structures, corrosion analysis, and coordination with a multi-disciplinary team including architects and civil engineers.

b.

(1) TITLE AND LOCATION *(City and State)*: **FPL Turtle Excluding Net, St. Lucie County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2013** CONSTRUCTION (If applicable): **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Design of an approximately 290-foot long elevated platform over the plant's salt-water intake canal. Platform designed as main support for a turtle excluding net with loads greater than 5,000 lb/foot. Work included design of duplex stainless steel beams, adjustable net tensioning system, concrete deck, caps, and piles and design of an underwater steel sheet pile anchoring system to fasten the net to the bottom of the canal.

c.

(1) TITLE AND LOCATION *(City and State)*: **Peeples Industries Jacksonville Terminal Preliminary Pier Design, Duval County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2013** CONSTRUCTION (If applicable): **N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Preliminary design of a 400 foot loading/offloading pier for 800-foot bulk carrier cargo ships. Work included calculation of berthing energy, mooring loads, and fender design. Preliminary structural design included computer modeling of mooring and breasting dolphins and design of pier deck and foundation elements for the ship loading crane, mobile cranes, and other on-pier equipment loads. Structural design challenges included a 10 – 20-foot layer of limestone rock located just below the dredge line and the owner's desire to utilize a fixed-ship loading crane and move vessels during the bulk material loading process.

d.

(1) TITLE AND LOCATION *(City and State)*: **Herndon Swamp Restoration Area, Sottile Canal Stormwater Park, Brevard County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2011** CONSTRUCTION (If applicable): **2011**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Structural design and construction observation for three concrete weirs comprising over 400 linear feet of precast concrete sheet pile and cast-in-place concrete aprons to resist hydrostatic uplift and erosion. Other work included structural design of concrete deadman, tie-rod system, and concrete cap. Construction observation included submittal review and limited on-site inspection.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Hubert C. Verkerk, P.E.	**Structural Engineering**	**36**	**6**

15. FIRM NAME AND LOCATION *(City and State)*
Taylor Engineering, Inc., Jacksonville, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)
B.S. / Civil and Structural Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
FL, South Africa / Professional Engineer

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)
Mr. Verkerk has over 35 years of experience in project management, engineering design, contract administration, and construction supervision on numerous civil engineering land development projects and industrial and commercial marine projects such as industrial site developments, commercial site developments, residential and commercial subdivisions, ports, harbors, shipping terminals, and bulk receipt terminals. He is also experienced in the design of highways, rural and city roadways and bridges, stormwater collection systems, water and sewer distribution systems, and all related permitting and environmental activities.

19. RELEVANT PROJECTS

a.
(1) TITLE AND LOCATION *(City and State)*
Florida School for the Deaf and the Blind: Seawall and Shoreline Infrastructure Improvements, St. Augustine, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **Ongoing** | CONSTRUCTION (If applicable): **Ongoing**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
☒ Check if project performed with current firm

Engineer-of-record for the design and construction of a protective shoreline seawall to improve campus shoreline infrastructure including perimeter roadway, stormwater systems, and student waterfront access features. Project includes planning and landscape architecture, marine structures engineering, stormwater design, roadway design, and construction phase services.

b.
(1) TITLE AND LOCATION *(City and State)*
Bahia Urbana Waterfront Redevelopment San Juan, Puerto Rico

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2013** | CONSTRUCTION (If applicable): **2013**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
☒ Check if project performed with current firm

Served as project engineer for marine and waterfront engineering consulting and design services that revitalized, retrofitted, and replaced aging and failing deep-water port infrastructure to support new mixed-use development including waterfront park facilities; cruise passenger tourist attractions; and commercial, residential, and civic developments. Marine structure services included evaluation of bulkheads, docks, and piers and design for new bulkheads, piers, mooring facilities, water taxi/seaplane berth, and other waterfront facilities.

c.
(1) TITLE AND LOCATION *(City and State)*
FPL St. Lucie Nuclear Power Plant: Discharge Canal Headwall Stabilization Project, St. Lucie County, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2012** | CONSTRUCTION (If applicable): **2012**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
☒ Check if project performed with current firm

Engineer-of-record for marine structures engineering design and environmental permitting to protect the St. Lucie Nuclear Power Plant's discharge canal and headwall from severe coastal erosion. The project includes all phases of work from feasibility through final design of an ocean seawall and an offshore breakwater. Together, the two structures will protect the plant's vital ocean-side infrastructure. Seawall design includes evaluation of numerous anchoring schemes (helical anchors, grouted anchors, deadmen wall, and diaphragm structures) to support a 24-foot high seawall in the post-storm scoured condition.

d.
(1) TITLE AND LOCATION *(City and State)*
Lantana Park Emergency Seawall Project Lantana, Florida

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2009** | CONSTRUCTION (If applicable): **2009**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
☒ Check if project performed with current firm

Provided project design and management, construction administration, and supervision for this $1.5 million dollar construction project, which comprised an emergency steel sheetpile seawall for the Lantana Beach Park. Project design, management, and administration services included every aspect of this project, including an emergency environmental permitting application.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME: **Steven J. Schropp, Ph.D.**

13. ROLE IN THIS CONTRACT: **Environmental Services**

14. YEARS EXPERIENCE: a. TOTAL **29** b. WITH CURRENT FIRM **23**

15. FIRM NAME AND LOCATION *(City and State)*: **Taylor Engineering, Inc., Jacksonville, FL**

16. EDUCATION (DEGREE AND SPECIALIZATION)

Ph.D. / Oceanography, Biological Oceanography
M.S. / Biology
B.S. / Marine Biology

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

FL / Environmental Assessor

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)

Dr. Schropp's experience includes environmental permitting, mitigation planning, regulatory agency coordination, National Environmental Policy Act (NEPA) document preparation, sediment quality sampling and data evaluation, dredged material management, and Phase 1 and 2 environmental site assessments. Dr. Schropp has served as a Vice President since 2000. Since early 2014, Dr. Schropp has held a dual role as Vice President/Senior Scientist, in which he serves as an advisor to the Taylor Engineering's President and to the environmental services and other technical staff.

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*: **Ecological Modeling – Jacksonville Harbor Deepening Study Jacksonville, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2014** — CONSTRUCTION (If applicable): **N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Project manager for ecological modeling that evaluated effects of the St. Johns River channel deepening on plankton, submerged aquatic vegetation, wetland, fish, and benthic macroinvertebrate communities. The modeling supported an environmental impact statement for this federal project.

b.

(1) TITLE AND LOCATION *(City and State)*: **Professional Services for the St. Augustine Port, Waterway, and Beach District (District), St. Augustine, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **1991- Ongoing** — CONSTRUCTION (If applicable): **N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Program manager for engineering and environmental support to the District for dredging, navigation, and waterways access projects. Senior advisor to the District since early 2014.

c.

(1) TITLE AND LOCATION *(City and State)*: **Florida School for the Deaf and Blind Seawall and Shoreline Infrastructure Improvements, St. Augustine, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **Ongoing** — CONSTRUCTION (If applicable): **Ongoing**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Senior review of permitting and mitigation components of project to mitigate shoreline erosion, design and construct protective shoreline seawalls, and improve campus shoreline infrastructure including perimeter roadway, stormwater systems, and student waterfront access features.

d.

(1) TITLE AND LOCATION *(City and State)*: **South Palm Beach/Lantana Shoreline Protection Project Palm Beach County, Florida**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2012** — CONSTRUCTION (If applicable): **N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

QA/QC review on an environmental impact statement evaluating environmental impacts of proposed breakwater and beach fill project to protect 3,400 feet of Palm Beach County, Florida shoreline. Key issues included turtle nesting habitat, hardbottom habitat, listed shorebird species, public access, and structure protection.

e.

(1) TITLE AND LOCATION *(City and State)*: **Rollover Pass Closure Feasibility Study, Phases I and II Galveston, Texas**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2013** — CONSTRUCTION (If applicable): **N/A**

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Senior review and oversight for Phase I and II of the Rollover Pass Closure Feasibility Study. Phase I included an environmental and engineering literature review, site observations, meetings with state and federal agency environmental permitting and review staff, and field data collection (bathymetry, water quality, tide elevations, and flow velocities). Phase II included numerical modeling to evaluate the potential effects of Rollover Pass closure on inland water hydraulics and salinity and preparation of an environmental assessment and a U.S. Army Corps of Engineers permit application.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

12. NAME
David Stites, Ph.D.

13. ROLE IN THIS CONTRACT
Environmental Services

14. YEARS EXPERIENCE
a. TOTAL: **30**
b. WITH CURRENT FIRM: **10**

15. FIRM NAME AND LOCATION *(City and State)*
Taylor Engineering, Inc., Jacksonville, FL

16. EDUCATION (DEGREE AND SPECIALIZATION)
Ph.D. / Aquatic Ecology
M.S. / Applied Biology and Aquatic Ecology
B.E. / Biology

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations. Training, Awards, etc.)
During his career, Dr. Stites has successfully implemented and managed a wide range of environmentally-focused water resource projects including environmental feasibility evaluations, diagnostic and pilot project studies, wetland and lake restoration design and implementation, wetland impact evaluation, mitigation, design and monitoring, state and federal environmental permitting, and document support for National Environmental Policy Act (NEPA) coordination activities. He has extensive experience presenting such issues to technical and public audiences, as well as negotiating environmental regulatory issues. His expertise is in freshwater, estuarine, and marine environmental matters including wetland restoration, water quality, endangered species, and associated permitting processes in Florida and around the U.S.

19. RELEVANT PROJECTS

a.
(1) TITLE AND LOCATION *(City and State)*
Ecological Modeling – Jacksonville Harbor Deepening Study, Jacksonville, Florida
(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2014** — CONSTRUCTION (If applicable): **N/A**
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
☒ Check if project performed with current firm

Task manager and senior scientist for adaptation and operation of ecological models to assess effects of the St. Johns River Jacksonville Harbor Channel deepening on fish and benthic macroinvertebrate communities in the lower St. Johns River (LSJR). The study used GIS analysis to measure effects of salinity changes due to channel deepening alternatives as shifts in fish species' preferred salinity habitat zones identified in a published analysis of a 10-year nekton sampling program in the LSJR.

b.
(1) TITLE AND LOCATION *(City and State)*
Bahia Urbana Waterfront Redevelopment San Juan, Puerto Rico
(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2013** — CONSTRUCTION (If applicable): **2013**
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
☒ Check if project performed with current firm

Provided environmental oversight during marine and waterfront engineering consulting and design services. Marine structure services included evaluation of bulkheads, docks, and piers and design for new bulkheads, piers, mooring facilities, dredging, and other waterfront facilities.

c.
(1) TITLE AND LOCATION *(City and State)*
BP Oil Terminal Dredging and Permitting Jacksonville, Florida
(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2011** — CONSTRUCTION (If applicable): **N/A**
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
☒ Check if project performed with current firm

Senior scientist who provided permit application support for expansion of terminal basin and dredging area. Project included natural resource surveys, permit application for dredging and submerged land lease revisions, dredging and sediment transport analyses, coordination with state and federal agencies, and QA/QC.

d.
(1) TITLE AND LOCATION *(City and State)*
Bathtub Beach Nourishment Project Martin County, Florida
(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2010** — CONSTRUCTION (If applicable): **2010**
(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE
☒ Check if project performed with current firm

Manager for project to protect essential infrastructure of the Bathtub Beach County Park and adjacent public roads and utilities from severe beach erosion. Project included design, permitting, and construction bid support for dredging and beach fill project that involved very sensitive habitats in the St. Lucie Inlet (part of an aquatic preserve) and Bathtub Beach (worm rock reef). Project activities included development of a joint coastal permit application, responses to multiple agency requests for additional information, management of a team of independent consultants to Martin County, development of natural resource documentation for state and federal permit applications, and design of monitoring programs.

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Jon Armbruster, P.E.	Civil Engineering	X	X								
Michael Whelan, P.E., D.CE	Civil Engineering	X	X								
Keith Knight, P.E.	Structural Engineering	X	X								
Hugh Verkerk, P.E.	Structural Engineering	X									
Ken Craig, P.E.	Coastal Engineering	X	X								
William Miller, Ph.D., P.E.	Coastal Engineering and Modeling	X	X								
Steven Schropp, Ph.D.	Environmental Services	X	X								
David Stites, Ph.D.	Environmental Services	X	X								

29. EXAMPLE PROJECTS KEY

NO.	Title Of Example Project (From Section F)	NO.	Title Of Example Project (From Section F)
1	Bahia Urbana Waterfront Redevelopment	6	
2	City of West Palm Beach Waterfront Commons	7	
3		8	
4		9	
5		10	

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Since 1983, **Taylor Engineering, Inc.,** ***a Federal Small Business,*** has focused its attention on water-related challenges and the effects of water resource activities on the environment. The company takes on projects that cover the spectrum of water-related issues. Each service shares a common characteristic: it supports projects occurring in the water or at the water's edge.

Our Vision

Throughout its history, Taylor Engineering has remained true to its vision — be the best in developing leading-edge solutions to challenges in the water environment.

Professional Resources

The Taylor Engineering staff includes degreed and licensed professionals with advanced degrees in engineering and science. The staff consists of registered engineers, scientists, planners, programmers, certified GIS analysts, IT personnel, finance and accounting specialists, and technical editors. Their educational and professional experience encompasses the disciplines of civil, structural, coastal, environmental, water resources, and port engineering; marine biology and chemistry; and GIS and computer science applications. Collectively, professional staff members hold advanced degrees in civil, coastal, water resources, and environmental engineering, the environmental sciences, and education.

Professional Experience

Taylor Engineering has over 30-years of successful history performing professional navigation, dredging, water resources, marine, and coastal engineering and environmental services for organizations such as

- U.S. Navy
- Several port authorities
- U.S. Army Corps of Engineers (USACE), Engineering Research and Development Center (ERDC)
- Florida Inland Navigation District (FIND)
- Florida Department of Environmental Protection (FDEP)
- United Nations Office for Project Services
- Public and private utilities
- U.S. Coast Guard
- USACE Mobile, Jacksonville, and Wilmington Districts
- Federal Emergency Management Agency (FEMA)
- Municipal and county governments
- Florida and South Carolina Departments of Transportation
- U.S. Nuclear Regulatory Commission
- National Fish and Wildlife Foundation

Taylor Engineering has successfully completed professional engineering projects throughout the eastern and southern United States, Puerto Rico, and South America. The diverse nature of these projects range from design, permitting, and construction of marine, waterfront and dredged material management facilities to natural resource studies and advanced mathematical modeling for the design and evaluation of waterfront structures, bridges, jetties, breakwaters, channel deepening, and more.

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Marine and Waterfront Structures

Taylor Engineering has experience in the evaluation, repair, replacement, design, and permitting of marine, waterfront, and coastal structures including jetties, groins, breakwaters, seawalls, marine and land-based pile foundation structures, stone revetments, bulkheads, piers, fixed and floating docks, navigational structures, and hydraulic control structures.

Taylor Engineering's marine engineering and structural engineering design experience includes offshore structures, pile-supported structures, bulkheads, piers, wharves, jetties, fixed and floating docks, mooring systems, fenders, seawalls, shoreline protection systems, underwater concrete, port and transportation terminals, dredging and dredged material management, earthen berms, bridges, retaining walls, and drainage control structures. Taylor's engineering staff has design-bid-build, design-build, and construction-phase and inspection experience with dry-docks, docking terminals, bridges, bulk material handling systems, dredged material management sites, shoreline protection systems, jack and bore pipeline installation, and seawalls. Complementary design services include structural, geotechnical, and civil engineering; specific expertise includes waterfront structures conditions assessments, value engineering for retrofit and replacement structures, mooring analysis, laterally loaded pile analysis, steel sheet pile analysis, steel and concrete corrosion analysis, marine concrete mix design, mass concrete mix design, slope stability analysis, groundwater seepage analysis, wind and wave load assessment, seismic load assessment, roadway and parking design, drainage design, hydrologic and hydraulic modeling, and coastal modeling including waves, storm surge, sediment transport and sea level rise. Sample marine and structural engineering projects include:

- Inspection and repair design of U.S. Coast Guard facilities such as bulkheads and an offshore steel tower supporting navigational instrumentation;
- Marine structures evaluation and engineering for redevelopment of the San Juan waterfront for the Commonwealth of Puerto Rico.
- Permitting and design of a Florida Power & Light seawall and breakwater to protect a nuclear power plant's discharge canal and headwall structure from severe coastal erosion;
- Determination of mooring loads and development of a structural computer model (STAAD) for the fender pile system at the Kings Bay Naval Base in Georgia;
- Design of a sheet pile wall (and riprap revetment rehabilitation) to protect approximately 370 linear feet of shoreline that fronts an eroding embankment at the Navy Littoral Warfare Research Complex in Panama City, Florida;
- Concrete floating dock design, dredging engineering, permitting, bid assistance, construction administration, and final project certification/closeout for the Lighthouse Park boat ramp in St. Augustine;
- Master plan development for St. Augustine Harbor, including coordination and permitting for the public mooring facility;
- Long-range master planning support to maximize public access to and use of the Intracoastal Waterway preserves (watercraft launching sites, natural camping sites, pedestrian bike paths, and signage), and to protect ecologically sensitive land and upland habitat for the city of Atlantic Beach; and
- Inspection of six boating facilities with recommendations for structural renovations and safety improvements for St. Lucie County.

Wave Breaks, Breakwaters, Groins, and Other Erosion Control Structures

Taylor Engineering has conducted numerous shore protection structure projects requiring design, permitting, bid assistance, and construction-phase services. These projects included a variety of erosion control, shoreline stabilization and stone revetment, projects. Among these, Taylor Engineering designed a system of stone breakwaters for construction in Jupiter Inlet. These breakwaters protect a recreational snorkeling area associated with Palm Beach County's Dubois Park restoration project. In addition, we completed construction of a 3,000-foot-long revetment along the shores of the Intracoastal Waterway in Flagler County. The project also included design for shoreline public pedestrian walkways and access bridges. Other revetment designs include projects to protect one of the main runways of the St. Augustine Municipal Airport, 1,200 feet of shoreline along a county park in Fort Pierce, and the shoreline of Lake Mangonia in West Palm Beach, Florida.

Dubois Park breakwaters and riprap

Taylor Engineering has a proven track record in the planning, design, rehabilitation, and permitting of bulkhead, groin, seawall, and coastal and marine structure projects. Taylor Engineering designed, prepared plans and specifications, and provided construction-phase services for a complete restoration project for the Jupiter Inlet jetty — a combined steel sheet pile and riprap structure — in northern Palm Beach County. Our previous bulkhead and seawall evaluation, restoration, or design work includes design for an aluminum sheet pile seawall to protect an eroding shoreline along a county park in Stuart, Florida. We evaluated damage, monitored structural movement, made preliminary recommendations, and developed final construction documents. We just completed construction administration services for the preservation of a historically significant 160-year-old coquina bulkhead wall on the Matanzas River just inside St. Augustine Inlet. We also designed a seawall reconstruction project along Flagler Drive in West Palm Beach. This project applied concrete soldier piles to stabilize and replace the existing shoreline stabilization. Most recently, we designed and then oversaw construction of an emergency seawall to protect the Town of Lantana's oceanfront park from severe coastal erosion. Our design for the Dubois Park restoration project in Jupiter Inlet also addressed new bulkhead and seawall features as well as riprap wall toe protection.

Environmental Services, Permitting, and Natural Resource Studies

Taylor Engineering feels justifiably proud of its expertise in handling regulatory issues as they affect the design and construction of marine and ocean engineering projects. Our technical experience with environmental regulation includes federal, state, and local environmental permits acquisition; habitat characterization and mapping; mitigation design; permit compliance monitoring; endangered/threatened species, wetland, watershed, natural resource studies, and other natural resource management plans; long-term monitoring; and field data collection and analysis. With our clear understanding of regulatory issues, we have developed valuable professional relationships with regulatory agencies over the years.

Taylor Engineering believes that permitting success begins with thorough understanding of the regulatory issues and processes, project design that considers environmental issues, and preparation of complete permit applications that address the known issues. Timely permit acquisition then depends on regular coordination with the agencies to facilitate their review and assessment of the proposed project. Most of the project examples presented elsewhere in this overview include permitting components and illustrate Taylor Engineering's ability to navigate successfully through the maze of regulatory issues.

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

We take great care to integrate our projects with the natural environment. We have significant experience with the full range of environmental issues commonly encountered during marine and ocean engineering projects including environmental permitting (USACE, state, and local), submerged land lease issues, habitat and impact assessment, mitigation design and long-term monitoring, and field data collection and analysis.

In summary, experience with regulatory agencies and public coordination often plays a key role in the success of our projects. We have coordinated with state and federal agencies on shoreline and dock structures, as well as drainage, dredging, and marine structures projects. We are strong proponents of feedback and coordination with our clients and project stakeholders during the development of any project. We often work with government staff to communicate information concerning a project's progress and to receive community input.

Construction Administration and Construction-Phase Services

Taylor Engineering has provided construction phase services to numerous counties, municipalities, and for more than 30 years. Taylor Engineering assists clients with administration of multiple multi-million dollar construction projects including marine and port structures, dredging and dredged material management areas, drainage improvements, flood risk reduction infrastructure, and operations and maintenance expenditures.

Projects for these clients include bulkhead and seawalls construction, jetty renovation, pile-supported structures, docks and marinas, upland dredged material containment sites, maintenance dredging, navigation marker installation and maintenance, and environmental mitigation and monitoring projects. Tasks have included contract preparation; bidding; contractor selection; preconstruction meetings; coordination with municipal, state, and federal agencies; pay application processing; contractor submittal review; construction observation; project closeout including review of as-built documents; and wetland mitigation and seagrass monitoring. Throughout its history, Taylor Engineering has assisted clients with design/construction projects that include the following elements.

- Waterfront Facility Assessments — above and below-water evaluation, professional engineer diver assessments, corrosion assessments, load ratings, life-cycle cost assessments, and value engineering for structural repair, replacement or retrofit designs;
- Marine Structures Construction — wharves, piers, mooring and berthing structures, bulkheads, pile foundations, jetties, navigation structures, and navigation training structures;
- Dredging Projects — dredging, dredged material management, beneficial use of dredged materials;
- Concrete Construction — structural concrete, precast concrete, prestressed concrete, headwalls;
- Structural Steel Construction — sheet pile, hydraulic control structures, steel framing;
- NPDES/Sediment/Turbidity Control — erosion control, turbidity control, NPDES certifications;
- Civil Site Construction — grading, earthen structures, revetments, scour protection;
- Utility Construction — potable water, sewer, stormwater systems, and communications systems;
- Roadway Construction — compaction, asphalt, rigid pavement;
- Permit Adherence — local, state, and federal; and
- Construction Administration — submittals, pay applications, request for proposals, change orders, etc.

During the past few years, Taylor Engineering has assisted clients with the administration of over 20 marine construction projects. Notably, for the City of West Palm Beach, Taylor Engineering administered the construction contract to build a replacement 3,220-linear-foot concrete panel seawall with king and soldier piles at Flagler Drive in downtown West Palm Beach. We acted as the owner's agent and the engineering and construction project manager for the City's efforts to repair hurricane-related shoreline damage at Lake Mangonia, the potable water source for the city. We provided construction administration for the emergency

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

National Association of County Park and Recreation Officials Park and Recreation Facility Class II Award for Dubois Park Seawall

seawall at the Town of Lantana's Oceanfront Park. We oversaw construction of marine and waterfront structures to support public park facilities at Piers 6, 7, and 8 in San Juan, Puerto Rico.

Our Awards

Several signature projects that reflect Taylor Engineering's commitment to its core values — technical expertise, client service and teamwork — have attracted the attention of agencies and organizations across the state.

Taylor Engineering's Dubois Park Redevelopment and Seawall Replacement project received 2012's prestigious National Association of County Park and Recreation Officials (NACPRO) ***Park and Recreation Facility Class II Award***. In recognizing excellence in recreation and park facilities, this award program focuses national attention on the very best of facility design. The award highlights and encourages outstanding efforts in planning, design, construction, and benefits to the community.

Dubois Park, one of Palm Beach County's most popular parks, features fishing, boating, swimming, snorkeling, picnicking, and other amenities in a scenic, tropical setting. Its design incorporates many ADA-compliant features, and a water taxi service will soon provide an alternative means to travel to this beautiful waterfront destination. Taylor Engineering completed Phase I (feasibility and planning) and Phase II (permitting and final engineering design) for the project. Phase I involved an evaluation of existing park facilities, a natural resource survey, conceptual layouts for a day dock facility, shoreline protection, snorkeling area configurations, and life-rescue and law enforcement vessel docking facilities. During Phase II, Taylor Engineering prepared the application, secured an environmental resource permit, and prepared final engineering design drawings and specifications for all project components.

2009 Beacon of Light award for West Palm Beach Waterfront Commons

In 2009, the Marine Industries Association of Palm Beach County chose the West Palm Beach Waterfront Commons Floating Docks for its Beacon of Light Award, given annually to a project that enhances boating opportunities. As a subcontractor, Taylor Engineering helped the City of West Palm Beach design, permit, and construct a series of floating docks as part of the downtown waterfront redevelopment program.

I. AUTHORIZED REPRESENTATIVE The foregoing is a statement of facts.

31. SIGNATURE

32. DATE
September 2, 2014

33. NAME AND TITLE
Jonathan T. Armbruster, P.E., Vice President, Waterfront Engineering

ARCHITECT-ENGINEER QUALIFICATIONS
PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

1. SOLICITATION NUMBER (If any): St. Petersburg Pier RFQ

2a. FIRM (OR BRANCH OFFICE) NAME: **Taylor Engineering, Inc.**

3. YEAR ESTABLISHED: 1983

4. DUNS NUMBER: 18-156-1168

2b. STREET: 10151 Deerwood Park Blvd., Bldg. 300, Suite 300

5. OWNERSHIP

a. TYPE: Corporation

2c. CITY: Jacksonville

2d. STATE: FL

2e. ZIP CODE: 32256

b. SMALL BUSINESS STATUS: Federal Small Business

6a. POINT OF CONTACT NAME AND TITLE: Jonathan Armbruster, P.E., Vice President, Waterfront Engineering

7. NAME OF FIRM *(If block 2a is a branch office)*

6b. TELEPHONE NUMBER: (904) 731-7040

6c. E-MAIL ADDRESS: jarmbruster@taylorengineering.com

8a. FORMER FIRM NAME(S) *(If any)*

8b. YR. ESTABLISHED

8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	6	6
12	Civil Engineer	4	4
70	Coastal Engineer	12	8
14	Computer Programmer	1	1
16	Construction Manager	1	1
23	Environmental Engineer	2	2
24	Environmental Scientist	3	3
29	Geographic Information System Specialist	2	2
32	Hydraulic Engineer	3	3
34	Hydrologist	2	1
57	Structural Engineer	2	2
80	Technical Editor	1	1
58	Technician/Analyst	3	3
62	Water Resources Engineer	3	2
47	Planner: Urban/Regional	1	1
	Systems Administrator	1	1
Total		**49**	**43**

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
C07	Coastal Engineering	6
C15	Construction Management	4
D08	Dredging Studies and Design	4
E09	Environmental Impact Studies, Assessments or Statements	3
E13	Environmental Testing and Analysis	1
E14	Environmental Permitting	2
G04	Geographic Information System Services: Development, Analysis, and Data Collection	1
H01	Harbors; Jetties; Piers, Ship Terminal Facilities	3
I06	Irrigation; Drainage	1
P05	Planning (Community, Regional, Areawide and State)	3
P06	Planning (Site, Installation, Project)	2
P07	Plumbing and Pipe Design	1
R04	Recreation Facilities (Parks, Marinas, Etc.)	1
R11	Rivers; Canals; Waterways; Flood Control	5
S09	Structural Design; Special Structures	4
S10	Surveying; Platting; Mapping; Flood Plain Studies	3
S13	Storm Water Handling & Facilities	2
W02	Water Resources; Hydrology; Ground Water	4
W03	Water Supply, Treatment & Distribution	1
238	Mathematical Modeling	2
258	Wetlands	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

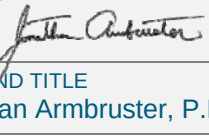
a. Federal Work	6
b. Non-Federal Work	7
c. Total Work	7

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE The foregoing is a statement of facts.

a. SIGNATURE



b. DATE: 9/2/14

c. NAME AND TITLE: Jonathan Armbruster, P.E., Vice President, Waterfront Engineering

State of Florida

Board of Professional Engineers

Attests that

Taylor Engineering, Inc.

is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.

Expiration: 2/28/2015
Audit No: 228201504361

Certificate of Authorization

CA Lic. No:
4815

State of Florida

Board of Professional Engineers

Attests that

Jonathan Thomas Armbruster, P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015
Audit No: 228201513776

P.E. Lic. No:
57959

State of Florida

Board of Professional Engineers

Attests that

Michael P. Whelan, P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015
Audit No: 228201513656

P.E. Lic. No:
55496

State of Florida

Board of Professional Engineers

Attests that

Kenneth Robert Craig II, P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201502638

P.E. Lic. No:

52605

State of Florida

Board of Professional Engineers

Attests that

William Miller Jr., P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201502865

P.E. Lic. No:

69813

State of Florida

Board of Professional Engineers

Attests that

Keith A. Knight, P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201513791

P.E. Lic. No:

58084

State of Florida

Board of Professional Engineers

Attests that

Hubert Cornelis Verkerk, P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201507390

P.E. Lic. No:
38031

HR&A Analyze. Advise. Act.

"We founded this firm to continue the reinvention of the American city into vibrant urban centers that offer jobs and sustain a high quality of life for diverse communities."

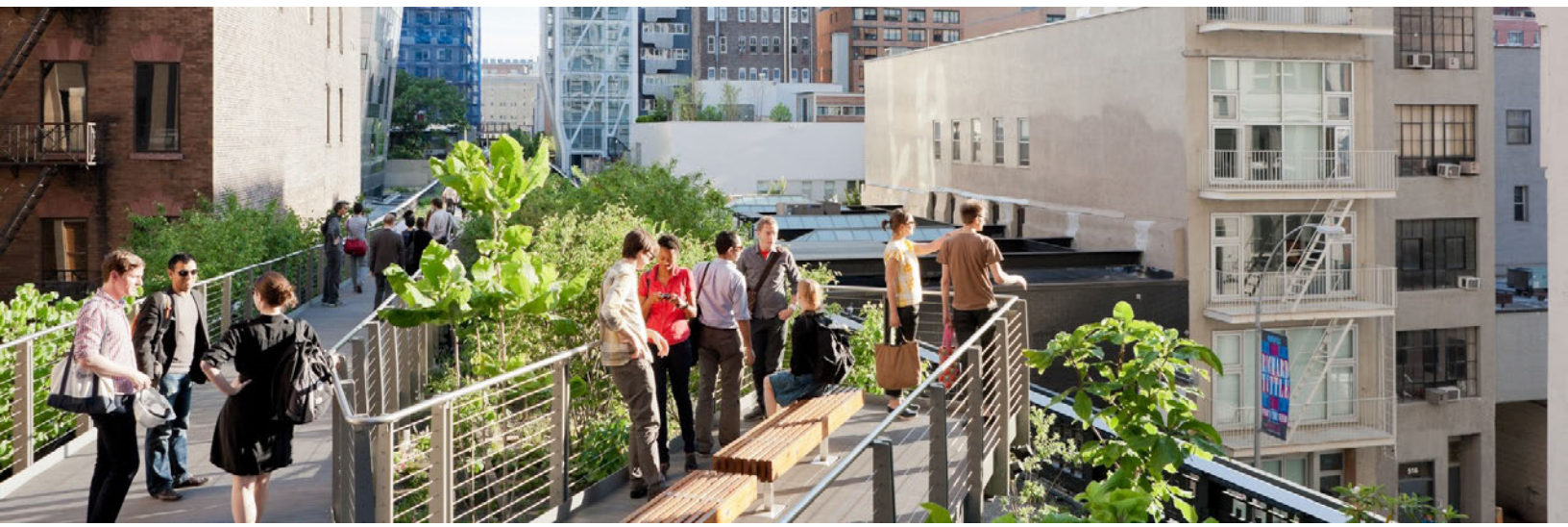
– John H. Alschuler, Chairman

HR&A Advisors, Inc. (HR&A) is an industry leader in economic development, real estate and public policy consulting. Equipped with a unique understanding of the intersection of the public and private sectors, HR&A has served a diversity of clients since 1976. HR&A has extensive experience advising on some of the most complicated real estate and economic development projects in communities across the country. We approach each assignment by focusing on how to achieve our client's goals in the context of the public sector's priorities and the private sector's motivations. Our approach has allowed hundreds of public and private clients to transform public infrastructure, real estate and economic development concepts first into actionable plans, then into job-producing, community-strengthening assets.

HR&A has extensive experience advising on waterfront master planning in downtowns across the United States. Our past work includes:

- Strategic real estate and economic advisory to Waterfront Toronto for the regeneration of the 1,100 acre Toronto waterfront
- Management, funding, and implementation strategic advisory to the Twin Cities for the Great River Passage and Minneapolis Riverfront Development Initiative
- Development advisory to the Brooklyn Bridge Park Development Corporation for the financing and master planning of the 85-acre Brooklyn Bridge Park
- Planning and development management for the Anacostia Riverfront Initiative, a revitalization of 3,070 acres of waterfront in Washington, DC
- Master planning, funding, and programming advisory for the Seattle Central Waterfront Park

HR&A's work has been recognized with numerous prestigious awards, including the American Institute of Architects' 2012 Honor Award for Regional and Urban Design for master planning for the Central Delaware Riverfront, the International Economic Development Council's 2009 Public-Private Partnership Award for the creation of the Cincinnati Center City Development Corporation (3CDC), the New Jersey Future 2009 Smart Growth Award for the Newark Broad Street Station plan, and the 2005 American Institute of Architects Honor Award for Regional and Urban Design for the Anacostia Waterfront Initiative.



HR&A Analyze. Advise. Act.

CANDACE DAMON

VICE CHAIRMAN

EDUCATION

Harvard University
Law School
Juris Doctorate
1986

Amherst College
Bachelor of Arts
American Studies
1981

WORK EXPERIENCE

HR&A Advisors, Inc.
(Formerly Hamilton, Rabinovitz & Alschuler, Inc.)
Partner
1988 – Present

G. Works
Founding Partner
2009 – Present

Webster & Sheffield.
Real Estate Associate
1986 – 1988

Lincoln Institute of Land Policy
Research Associate
1985 – 1986

Massachusetts Bar Association
Committee on Alternative Dispute Resolution
Research Associate
1984 – 1985

New York City
Office of Management and Budget
(Office of Community Board Relations)
Analyst
1981 – 1983

Candace is Vice Chairman of HR&A Advisors, Inc. and has over 25 years of experience in the management of complex, public-private real estate and economic development activity. Candace has directed a wide-ranging practice, currently focused on bolstering the sustainability of American communities. She leads the firm's energy practice and helps clients realize the competitive advantage gained by investment in sustainability. Her specific areas of expertise include: addressing the financial challenges of making commercial and multifamily residential buildings energy efficient and ensuring the long term viability of urban open space, supporting master planning efforts for large-scale revitalizations and organizational planning for non-profits and institutions.

Great River Park Master Plan Implementation

Worked as part of a multi-disciplinary team to recommend a strategy for master plan implementation and stewardship in terms of management and funding for the Great River Park in Saint Paul, Minnesota. Led the analysis of opportunities and challenges for park management and funding along the Saint Paul Riverfront, and assessment of best practices for the programming, operations, maintenance, management and funding of comparable efforts.

Seattle Waterfront Park Operations and Maintenance Strategy

For the City of Seattle, leading the creation of a funding and management strategy for the ongoing an operations and maintenance of a new waterfront park City of Seattle. The planned park will stretch two miles along the city's downtown waterfront, and award-winning landscape architect james corner field operations is developing its iconic design. HR&A recommendations will protect the City's investment in the park.

Funding Strategy for Minneapolis Riverfront Development Initiative

For the Minneapolis Park and Recreation Board, developing a funding strategy for the implementation of the Minneapolis Riverfront Development Initiative. Includes a vision plan, called RiverFIRST, for the redevelopment of 5.5 miles of the Mississippi riverfront north of the Minneapolis' downtown core, new environmental restoration projects, real estate developments, and the completion of critical links in the city's famous Grand Rounds bicycle network. Led an assessment of the potential for generating revenues to fund ongoing operations and maintenance of the planned parklands from real estate disposition and development, and from funding structures related to environmental restoration. RiverFIRST was approved by the Minneapolis Park and Recreation Board in March 2011.

Toronto Waterfront Revitalization

For the Waterfront Toronto Corporation, developed a comprehensive funding strategy for stewardship of 1,200 acres of new waterfront parks and open spaces, creating a development framework for Toronto's Lower Yonge precinct, and performing a feasibility study for the redevelopment of a central waterfront site. Toronto City Council approved the funding strategy in November 2008.

HR&A Analyze. Advise. Act.

CANDACE DAMON

VICE CHAIRMAN

AFFILIATIONS

City Parks Alliance
Member, Board of Directors
2012 – Present

YMCA
Member, Real Estate Advisory Committee,
2012 – Present

Urban Green Council
Member, Board of Directors
2011 – Present

SPEAKING ENGAGEMENTS

Candace is a widely requested conference panel moderator and speaker

AWARDS

Real Estate Forum
Women of Influence Award
2008

Revitalizing the Memphis Riverfront

Led a multi-disciplinary team that prepared a revitalization plan for 11 linear miles of Mississippi River waterfront adjacent to Downtown Memphis for the Memphis Riverfront Development Corporation. Identified new residential and commercial development capable of contributing to the capital and operating costs of the open-space elements. Designed a management structure to capture revenue from new development.

Brooklyn Bridge Park Planning

Served as the Project Manager/Chief Consultant to the Brooklyn Bridge Park Development Corporation, a State-funded not-for-profit planning the development of a financially self-sustaining, 85-acre waterfront park on the East River, facing the Manhattan skyline.

Fresh Kills Park Master Plan

Supported the design team charged with providing a master plan for a new park at Fresh Kills, the 2,200-acre former landfill site in Staten Island. Led the community outreach, financial, and stewardship planning. For a range of development scenarios, provided financial projections and capital and operating budgets. Created stewardship and management models for the eventual operation of the park. The draft master plan was completed in 2006.

Revitalization of Peavey Plaza in Minneapolis

Currently working with the Minnesota Orchestral Association (MOA), an urban design consultant and the City of Minneapolis, to revitalize Peavey Plaza, a public area in downtown Minneapolis that has been the "front yard" of Orchestra Hall since the 1970s. Developing a Strategic Plan for Peavey Plaza's redevelopment, including a recommended management structure and identification of revenue sources to support high-quality standard of care and cultural programming.

Planning for Shelby Farms in Memphis

Conducted a preliminary study to support operations and maintenance planning for the future revitalized, 4500-acre Shelby Farms park in Memphis to support the design team. As the Shelby Farms Park Conservancy undertakes its first phase of capital investment following completion of the master plan, which will feature the development of the 160-acre Patriot Lake, an active destination at the park's core, developing a business plan for the operations and maintenance of the lake.

Longwood Gardens Master Plan

Supported master planning efforts for Longwood Gardens in Kennett Square, Pennsylvania, one of the world's premier horticultural display gardens. Produce a report highlighting potential new program elements that supported concept planning. Provided attendance projection scenarios for various alternatives, by estimating additional revenue sources, and outlining an implementation strategy.

San Diego Downtown Parks Implementation Master Plan

For the Centre City Development Corporation (CCDC) and on behalf of the City of San Diego Redevelopment agency, worked to support the creation of a parks implementation master plan. Provided guidance to the project team on the governance and funding of new and enhanced open spaces throughout the city. Worked to identify strategies and mechanisms that will make the long term implementation, management and operations of the Centre City Park System a sustainable reality.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a.FIRM (OR BRANCH OFFICE) NAME **HR&A Advisors, Inc.**		3. YEAR ESTABLISHED 2007	4. DUNS NUMBER 80-090-4042
2b.STREET 99 Hudson Street, 3rd Floor		5. OWNERSHIP a. TYPE Class C Corporation	
2c. CITY New York	2d. STATE NY	2e. ZIP CODE 10013	b. SMALL BUSINESS STATUS n/a
6a. POINT OF CONTACT NAME AND TITLE Candace Damon, Vice Chairman			7. NAME OF FIRM *(If block 2a is a branch office)* HR&A Advisors, Inc.
6b. TELEPHONE NUMBER 212.977.2706	6c. E-MAIL ADDRESS cdamon@hraadvisors.com		

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER
Hamilton, Rabinovitz & Alschuler, Inc.	1976	09-335-0429

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
n/a	Partner	8	7
n/a	Principal	4	2
n/a	Director	4	4
n/a	Senior Analyst	10	8
n/a	Analyst	8	7
02	Administrative	6	5
Total		40	33

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
n/a	Consulting	7

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

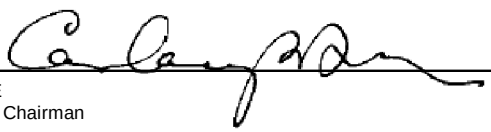
a. Federal Work	2
b. Non-Federal Work	7
c. Total Work	7

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 	b. DATE 08/30/12
c. NAME AND TITLE Candace Damon, Vice Chairman	

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
Candace Damon	**Real Estate and Economics Partner-in-Charge**	a. TOTAL 31	b. WITH CURRENT FIRM 24

15. FIRM NAME AND LOCATION *(City and State): HR&A Advisors, Inc. New York City, NY*

16. EDUCATION *(DEGREE AND SPECIALIZATION)*
1983 – 1986, Harvard Law School, J.D.
1977 – 1981, Amherst College, B.A. American Studies

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
n/a

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.)
1988 – Present, Partner, HR&A Advisors, Inc. (Formerly Hamilton, Rabinovitz & Alschuler, Inc.)
2009 – Present, Founding Partner, G. Works
1986 – 1988, Associate (Real Estate), Webster & Sheffield.
1985 – 1986, Research Associate, Lincoln Institute of Land Policy
1984 – 1985, Research Associate, Massachusetts Bar Association, Committee on Alternative Dispute Resolution
1981 – 1983, Analyst, NYC Office of Management and Budget (Office of Community Board Relations)
2012-Present, Member, Board of Directors, City Parks Alliance
2011-Present, Member, Board of Directors, Urban Green Council
2008 Women of Influence Award, *Real Estate Forum*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Funding Strategy for Minneapolis Riverfront Development Initiative Minneapolis, MN

(2) YEAR COMPLETED
PROFESSIONAL SERVICES 2011 | CONSTRUCTION (If Applicable) n/a

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

For the Minneapolis Park and Recreation Board, developing a funding strategy for the implementation of the Minneapolis Riverfront Development Initiative. Includes a vision plan, called RiverFIRST, for the redev elopment of 5.5 miles of the Mississippi riverfront north of the Minneapolis' downtown core, new environmental restoration projects, real estate developments, and the completion of critical links in the city's famous Grand Rounds bicycle network. Led an assessment of the potential for generating revenues to fund ongoing operations and maintenance of the planned parklands from real estate disposition and development, and from funding structures related to environmental restoration. RiverFIRST was approved by the Minneapolis Park and Recreation Board in March 2011.
Project Role: Partner-in-Charge

b.

(1) TITLE AND LOCATION *(City and State)*
Brooklyn Bridge Park Planning Brooklyn, NY

(2) YEAR COMPLETED
PROFESSIONAL SERVICES 2009 | CONSTRUCTION (If Applicable) n/a

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Served as the Project Manager/Chief Consultant to the Brooklyn Bridge Park Development Corporation, a State-funded not-for-profit planning the development of a financially self-sustaining, 85-acre waterfront park on the East River, facing the Manhattan skyline.

Project Role: Project Manager/Chief Consultant

c.

(1) TITLE AND LOCATION *(City and State)*
Fresh Kills Park Master Plan Staten Island, NY

(2) YEAR COMPLETED
PROFESSIONAL SERVICES 2006 | CONSTRUCTION (If Applicable) n/a

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Supported the design team charged with providing a master plan for a new park at Fresh Kills, the 2,200-acre former landfill site in Staten Island. Led the community outreach, financial, and stewardship planning. For a range of development scenarios, provided financial projections and capital and operating budgets. Created stewardship and management models for the eventual operation of the park. The draft master plan was completed in 2006.

Project Role: Partner-in-Charge

d.

(1) TITLE AND LOCATION *(City and State)*
Revitalizing the Memphis Riverfront Memphis, TN

(2) YEAR COMPLETED
PROFESSIONAL SERVICES 2001 | CONSTRUCTION (If Applicable) On-going

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

Led a multi-disciplinary team that prepared a revitalization plan for 11 linear miles of Mississippi River waterfront adjacent to Downtown Memphis for the Memphis Riverfront Development Corporation. Identified new residential and commercial development capable of contributing to the capital and operating costs of the open-space elements. Designed a management structure to capture revenue from new development.

Project Role: Partner-in-Charge

e.

(1) TITLE AND LOCATION *(City and State)*
Toronto Waterfront Revitalization Toronto, Canada

(2) YEAR COMPLETED
PROFESSIONAL SERVICES 2008 | CONSTRUCTION (If Applicable) n/a

(3) BRIEF DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

[x] Check if project performed with current firm

For the Waterfront Toronto Corporation, developed a comprehensive funding strategy for stewardship of 1,200 acres of new waterfront parks and open spaces, creating a development framework for Toronto's Lower Yonge precinct, and performing a feasibility study for the redevelopment of a central waterfront site. Toronto City Council approved the funding strategy in November 2008.

Project Role: Partner-in-Charge

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Dan Brodkin	Principal – Structural Engineer	25	25

15. FIRM NAME AND LOCATION *(City and State)*

Arup – New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
MS, Massachusetts Institute of Technology, Boston, Massachusetts, 1988 BS, Carnegie Mellon University, Pittsburgh, Pennsylvania, 1986	PE, State of New York, Pennsylvania, Michigan, Connecticut, Kentucky, Missouri

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Miami Science Museum
Miami, Florida

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Director and Principal Structural Engineer for the design of a new 200,000ft^2 science museum in Miami. The project features an aquarium, a planetarium and a science theatre. Although designed by different architects, the Miami Science Museum will sit alongside the new Miami Art Museum; both of which will sit atop a joint parking structure and plaza. Both designs promise to be signature works of architecture on a prominent site in Museum Park along Biscayne Bay.

b.

(1) TITLE AND LOCATION *(City and State)*
Miami Art Museum
Miami, Florida

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing - 2015	Ongoing - 2015

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Principal Structural Engineer for a new 125,000ft^2 building for the collection and exhibition of international art. The project features extensive use of architecturally exposed cast-in-place concrete.

c.

(1) TITLE AND LOCATION *(City and State)*
Marina Bay Sands Integrated Resort
Singapore

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2010	2010

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Director and Principal Structural Engineer for the Americas region team. The project waterfront project features approximately 7.5mft^2 of space, including a museum, performing arts center, casino, convention center, three high-rise hotels, and restaurants.

d.

(1) TITLE AND LOCATION *(City and State)*
Byzantine Fresco Chapel Museum
Houston, Texas

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
1997	1997

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Structural Engineer for the design of the new museum building and its feature exhibit; a free-standing cable and glass sculpture representing a historic chapel

e.

(1) TITLE AND LOCATION *(City and State)*
Muhammad Ali Center
Louisville, Kentucky

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2005	2005

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Director and Lead structural engineer for a new 100,000ft^2 museum consisting of exhibit space, orientation theater and arena. Project features a cable-braced glass wall defining the main lobby.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Igor Kitagorsky	Associate –Plumbing Engineer	30+	18

15. FIRM NAME AND LOCATION *(City and State)*

Arup – New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
MS, Sanitary Engineering, Poltava Institute of Civil Engineering, Ukraine, 1980	

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Member, American Society of Plumbing Engineers (ASPE)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Institute of Contemporary Art
Boston, MA

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	2007

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Plumbing and Fire Protection Engineer for a new 62,000ft2 museum on the waterfront in Boston.

b.

(1) TITLE AND LOCATION *(City and State)*
Cornell NYC Tech, First Academic Building
New York, NY

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Lead Plumbing and Fire protection Engineer for the design of 150,000sqft Academic building on Roosevelt Island. The project has targets of zero net energy and LEED Platinum.

c.

(1) TITLE AND LOCATION *(City and State)*
Taichung Botanical Gardens
Taiwan

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	2007

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Plumbing and Fire Protection Engineer for a series of greenhouse structures incorporating natural ventilation methods.

d.

(1) TITLE AND LOCATION *(City and State)*
New Acropolis Museum
Athens, Greece

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	2012

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Plumbing Engineer for the design of a new 300,000ft2 museum near the Acropolis to house the Parthenon Marbles.

e.

(1) TITLE AND LOCATION *(City and State)*
Byzantine Fresco Chapel and Gallery
Houston, TX

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
1997	1997

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Plumbing and Fire Protection Engineer for a space to house and exhibit two mid 13th century Byzantine frescos from Cyprus, involving a stand-alone chapel of glass contained within a climate and light modulating envelope. Rather than recreate the original chapel and risk devaluing the spirituality of the fresco fragments, the chapel has been conceived of as a reliquary envelope to hold the now restored frescoes and to present them as sublime relics.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Gary LaMonica	Associate - Electrical Engineer	14	8

15. FIRM NAME AND LOCATION *(City and State)*

Arup – New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
BS, Electrical Engineering, Polytechnic University, New York, 1998	PE, State of New York

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

SFPE Seminar of the Fire Alarm Systems Design

IEEE Power Engineering Society SKM Power Tools Certificate

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Miami Art Museum
Miami, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Principal Structural Engineer for a new 125,000ft^2 building for the collection and exhibition of international art. The project features extensive use of architecturally exposed cast-in-place concrete.

b.

(1) TITLE AND LOCATION *(City and State)*
East River Waterfront Park
New York, NY

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Electrical Engineer responsible for Arup's work in the Joint Venture appointed by NYC Economic Development Corporation for engineering and project management services for the 1.5-mile waterfront. Responsibilities include managing the interface with the independently appointed architect team, managing the permitting and agency approval process, and integrating the work of various Arup disciplines and the Joint Venture's sub-consultants.

c.

(1) TITLE AND LOCATION *(City and State)*
Teardrop South Park
New York, NY

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2000	2000

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Electrical Engineer for the two-acre Teardrop park site, which is located in downtown Manhattan in the Battery Park City Development area. The park will be situated between four tall buildings and will incorporate elemental site features that recall the natural landscape of New York State. These elements take the form of stone structures, earth forms, water features and landscape. Arup is providing full design services for the park infrastructure including civil, electrical, mechanical and structural engineering to enable the park elements to be realized. In addition to the technical engineering, Arup is providing assistance to ensure the necessary approvals are obtained from the local governing authorities.

d.

(1) TITLE AND LOCATION *(City and State)*
SoMA – Newark Masterplan
Newark, New Jersey

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	Ongoing

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Electrical Engineer on a 23.5-acre mixed-use development to include 7,000 residential units, 550,000ft^2 of retail space, 2 million square feet of office space, a 200-room hotel, 9,000 parking spaces and 8.8 acres of open public space. The proposed buildings range from 3 to 90 stories.

e.

(1) TITLE AND LOCATION *(City and State)*
Free Library of Philadelphia, Expansion and Renovation
Philadelphia, Pennsylvania

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2007	2007

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Electrical Engineer for the renovation and expansion of the existing main Library in Philadelphia. Arup is providing structural, mechanical, electrical, plumbing/fire protection engineering services for the renovation and expansion of the Free Library of Philadelphia. The existing library is approximately 300,000ft^2 and the project involves 170,000ft^2 of renovation and an addition of 180,000ft^2. A new atrium will connect the old and the new portions of the building. The new space will create room for an expanded Children's Library, a Digital Discovery Center, an Electronic Browsing Center, and expanded room for collections, public meeting rooms, administrative offices, rare books, and a new visual and performing arts center.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Vincent Lee	Civil Engineer	15+	8

15. FIRM NAME AND LOCATION *(City and State)*

Arup – New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
MS, Civil Engineering, 2002, New Jersey Institute of Technology	PE, State of Illinois, Maine, New Jersey, New York
BS, Civil Engineering, 1998, Pennsylvania State University	USGBC LEED AP, 2006
Minor, Environmental Engineering 1998, Pennsylvania State University	ISI ENV SP, 2013

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Member, U.S. Green Building Council (USGBC), 2006-Present

Member, New York Water Environment Association (NYWEA), 2012-Present

Lee, Vincent, "Low Impact U.S. Land Port of Entry" StormCon 09, Anaheim, CA; August 18, 2009

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Ciudad Creativa Digital
Guadalajara, Mexico

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2010	2010

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Lead water engineer for the development of a master plan for a new 420-hectare development district in downtown Guadalajara with the objective of transforming the area into the 'Silicon Valley' of Mexico and showcasing sustainability and smart city technology. Vincent developed a water master plan that re-introducing natural systems into the district for stormwater management to become the first urban green infrastructure in the city which would allow the public to access the water. He also developed an overall site water budget for the project to optimize water management and treatment strategies.

b.

(1) TITLE AND LOCATION *(City and State)*
East River Waterfront Esplanade
New York, New York

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Engineer responsible for the detailed design of a unique underground rainwater harvesting system to reduce the potable water demand for landscape irrigation. At the project onset, he provided the design team guidance on implementing sustainability principals and LEED for the proposed waterfront esplanade development between the South Street/FDR Drive corridor and the East River.

c.

(1) TITLE AND LOCATION *(City and State)*
Poplar Point
Washington DC

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	N/A

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Manager responsible for developing strategies to integrate sustainable engineering and infrastructure design for a waterfront community, connected physically, socially, and economically to Historic Anacostia. The vision for Poplar Point calls for a world-class, 6.4-million-square-foot, mixed-use waterfront community in historic Anacostia located in Washington, DC.

d.

(1) TITLE AND LOCATION *(City and State)*
CornellNYC First Academic Building
New York, NY

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Engineer for the sustainable stormwater management design of an Enabling Project for a proposed Arts & Transit Neighborhood at Princeton University. Design included the integration of stormwater management features into the neighborhood to alleviate flooding, improve runoff quality and provide water reuse.

e.

(1) TITLE AND LOCATION *(City and State)*
Miami Science Museum
Miami, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Developed a concept civil engineering plan and served as a coordinator between the architect, Grimshaw, and local engineer (during permitting stages) for a new science museum including significant aquarium exhibits. The building will be located within Museum Park, alongside the proposed Miami Art Museum; both of which will sit atop a new joint parking structure and plaza.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Trent Lethco	Transportation Engineering and Planning	15	12

15. FIRM NAME AND LOCATION *(City and State)*

Arup – New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
MA, Urban Planning (Transportation), University of California, Los Angeles, 1998 BA, History, University of California, Berkeley, 1992	AICP, American Institute of Certified Planners

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Board Member, Regional Plan Association

Member, TRB Transportation Issues in Major U.S. Cities Committee, 2008-Ongoing

Toronto Waterfront Lower Don Lands, Clinton Climate Initiative program to demonstrate economic, environmental strategies for sustainable urban growth, 2009

Trent Lethco, et al., Microsimulation Model Design in Lower Manhattan: A Street Management Approach. New York, NY: Arup, 2009*

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
East River Waterfront
New York, New York

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The New York City Economic Development Corporation (EDC) commissioned Arup as part of a joint venture to design and develop the revitalization of the East River Waterfront between the Battery and East River Park. Trent developed various options for a multi-modal future South Street as well as met with NYCDOT and other decision makers to articulate the vision and make a case for change. He has also provided extensive input on streetscape design and impacts on vehicle, bicycle, and pedestrian safety and mobility.

b.

(1) TITLE AND LOCATION *(City and State)*
Lower Don Lands Masterplan
Toronto

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	2012

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Waterfront Toronto is developing a 150-acre mixed-use development in the Lower Don Lands along the waterfront. In parallel, the City is considering tearing down the overhead Gardiner Expressway, which runs along the waterfront. Trent managed the transportation components of the project which pedestrian network enhancements, waterfront bicycle strategies, vehicular and pedestrian bridges, municipal infrastructure, and major earthworks. He oversaw the development and evaluation of transportation network alternatives and creation of a transportation master plan for the area. He also oversees the development of the Lower Don Lands micro-simulation model which is used to test and evaluate transportation operations.

c.

(1) TITLE AND LOCATION *(City and State)*
Meixi Lake Development Masterplan
Changsha, China

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	N/A

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Lead Transportation Planner for a masterplan of a 2,500-acre area. The masterplan featured a large amount of waterfront (lake and river) development, transit oriented development, renewable energy, waste minimization, water harvesting, recycling and reuse, sustainable transportation systems and urban agriculture.

d.

(1) TITLE AND LOCATION *(City and State)*
CityArchRiver 2015
St. Louis, MO

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

A team led by MVVA Landscape Architects, won the international design competition for the redevelopment of the Jefferson National Expansion Memorial (Gateway Arch) in St. Louis, Missouri. The design concept will redevelop the Arch Grounds and more importantly, will reconnect the Arch with the surrounding City which is currently separated by major highway, road and bridge infrastructure. Trent led transportation planning wayfinding, traffic modelling, parking and user experience studies. 2010-ongoing

e.

(1) TITLE AND LOCATION *(City and State)*
MTC Advisory Council
San Francisco, CA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2008	N/A

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Staff liaison for the MTC Advisory Council, consisting of 18 community members who advise MTC on all relevant transportation planning and funding issues. Developed 2002 work plan which focused on transportation and land use policies at MTC including: implementation of transit supportive land uses around transit expansion stations, expanding the housing Incentive Program, and developing a program proposal for a specific plan grant fund.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Cliff McMillan	Civil/Structural- Maritime engineer	46	49

15. FIRM NAME AND LOCATION *(City and State)*

Arup – New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
BEng, University of Natal, 1962	PE, South Africa
MEng, University of Witwatersrand, South Africa,	CEng

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Fellow, Institution of Civil Engineers (FICE), United Kingdom, 1988

Honorary Fellow, South African Institution of Civil Engineers (HonFSAICE), 1999

President, South African Association of Consulting Engineers, 1996

Lincoln Center CMP: 2008 ACEC New York, Platinum Award for Engineering Excellence

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
East River Waterfront Esplanade and Piers Project
New York, New York

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Deputy Project Manager for the Joint Venture appointed by NYC Economic Development Corporation for all engineering and management services for the 2-mile East River Waterfront Esplanade and Piers project in lower Manhattan. Specific responsibility for managing the interface and collaboration with EDC's Architect Team and coordinating their delivery.

b.

(1) TITLE AND LOCATION *(City and State)*
Hudson River Park
New York, NY

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Manager responsible for Arup's park-wide project management and design coordination services for the Hudson River Park development from Battery Park City to 59th Street. The 550-acre, 5-mile long project will regenerate the historic waterfront, provide a continuous esplanade, and reconstruct 13 piers on the west side of Manhattan between the bulkhead wall and the west side highway. Passive and recreational park areas, public event areas, water-based recreation, and water taxi stops will promote public access to the Hudson River. A marine sanctuary, habitat areas, and eco-piers will protect wildlife.

c.

(1) TITLE AND LOCATION *(City and State)*
East River Walk
New York, NY

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	2012

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Concept study for proposed over-water esplanade between 40th and 50th Streets in Manhattan.

d.

(1) TITLE AND LOCATION *(City and State)*
Waterfront Feasibility Study
Santos, Brazil

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	2013

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Director for a World Bank funded feasibility study for a water front in Santos, the largest port in Brazil.

e.

(1) TITLE AND LOCATION *(City and State)*
Pier A
New York, NY

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Director for the renovation of the historic Pier A building on the Hudson River at Battery Park, Arup is working with the NYC Economic Development Corporation and Battery Park City Authority to reconstruct areas of the Pier A promenade and plaza.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Raymond Quinn	Lead Mechanical Engineer	24	24

15. FIRM NAME AND LOCATION *(City and State)*

Arup – New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
MBA (With Honors), IMD, Lausanne, Switzerland, 2008	PE, State of New York, Commonwealth of Pennsylvania, State of New Mexico
MS, Air Conditioning and Refrigeration, University of London, King's College, 1989	CEng, UK
BEng, (First Class Honors), University of Dublin, Ireland, 1988	LEED AP

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Member, Institute of Mechanical Engineers; American Society of Heating and Air Conditioning Engineers

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Robert F. Wagner Jr. Park, Battery Park City
New York, NY

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
1997	1997

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Mechanical Engineer for the early stages of the waterfront park design including two pavilion buildings. The buildings housed bathroom, park maintenance and restaurant facilities.

b.

(1) TITLE AND LOCATION *(City and State)*
JetBlue Terminal 3, Fort Lauderdale-Hollywood International Airport
Fort Lauderdale, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing - 2015	Ongoing - 2015

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Arup was commissioned by JetBlue to provide project management, building design and technical expertise for the In-line Centralized Baggage Inspection System project. The project replaced the outdated baggage handling and screening systems with new, including new EDS machine. The baggage handling areas of the building are expanded to accommodate the larger system, new power supplies are required and programmatic functions in the building are added and / or re-located. Raymond led Arup's team of engineers and consultant for the duration of the project.

c.

(1) TITLE AND LOCATION *(City and State)*
Florida Southern College, Polk County Science Building
Lakeland, FL

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2000	2000

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Mechanical Engineer that carried out condition surveys of this Frank Lloyd Wright building. Involved in development of the conceptual plans for the renovation of the building. Arup provided structural, mechanical, electrical, plumbing and fire protection systems design services through to the completion of the project.

d.

(1) TITLE AND LOCATION *(City and State)*
Coney Island Steeplechase Plaza
Brooklyn, NY

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	2013

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Raymond was the Mechanical Engineer and Engineer-of-Record for a one-of-a-kind public plaza on the famed Coney Island boardwalk known as "Steeplechase Plaza". The Plaza is envisioned as a signature component of a revitalized Coney Island. The project consists of the redevelopment of the area surrounding the historic Parachute Jump and specifically the design of a 7,000sf new building to accommodate a restored carousel. In addition to the carousel space, the project also contains an event space, restrooms and cafeteria. Arup provided structural and MEPFP services. The building opened in 2013.

e.

(1) TITLE AND LOCATION *(City and State)*
Byzantine Fresco Chapel Museum
Houston, Texas

(2) YEAR COMPLETED	
PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
1997	1997

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Mechanical Engineer for the final design stages and the construction stage for this new building that was designed as a museum for two frescos and also a fully functioning Greek Orthodox church. The one-story with basement building is approximately 5,000ft^2.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Brian Stacy	Lighting Design	20	17

15. FIRM NAME AND LOCATION *(City and State)*

Arup – New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
BFA, Lighting Design, DePaul University, Chicago, Illinois, 1995	LEED AP Lutron Controls: Commercial A/V Lighting; Future of Lighting Controls

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Professional Member, International Association of Lighting Designers

Member, Illuminating Engineering Society of North America

Sustainability Committee, International Association of Lighting Designers (IALD)

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Coney Island Center
New York, New York

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
20012	N/A

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Acting as lead lighting designer for this iconic performing arts venue in Brooklyn, Brian worked to create a visual icon with Grimshaw Architects set in a redesigned Asser Levy Park. The project features a iconic lit canopy, full architectural lighting of the venue, and pedestrian lighting that worked to incorporate refurbished existing lighting with new luminaires to support the project's sustainable agenda.

b.

(1) TITLE AND LOCATION *(City and State)*
Regione Lombardia, Architectural and Daylighting Design
New York, New York

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Led the architectural and daylighting design for the entry lobbies, private offices, open plan offices and other public transitional spaces at this new 1 million square foot office space designed by Pei Cobb Freed. A significant component of the project was a custom luminaire for the open plan office space to incorporate DALI lighting control.

c.

(1) TITLE AND LOCATION *(City and State)*
Exposition Park Intergenerational Community Center
Los Angeles, CA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2005	2005

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Responsible for providing quality aesthetic and technical solutions for this integrated building design and area redevelopment for external sports fields and public amenities as a part of the multi-disciplinary team on this award-winning project.

d.

(1) TITLE AND LOCATION *(City and State)*
Songdo Central Park–Lighting, New Songdo City
South Korea

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	2012

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Lighting Design Leader for this new 100-acre park, centrally located in New Songdo City. Major lite features include public amenity buildings, pedestrian bridges, congregation and exercise areas, public art features and variable scales of pathways.

e.

(1) TITLE AND LOCATION *(City and State)*
Washington Dulles International Airport
Sterling, VA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Led the Arup lighting effort and was involved in the lighting in the public support spaces and apron lighting.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Cameron Thomson	LEED/Sustainability	14	7

15. FIRM NAME AND LOCATION *(City and State)*

Arup -New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
BTech, Environmental Pollution and Management. University of Edinburgh, 2000	LEED AP AICP (American Institute of Certified Planners) Chartered Environmentalist (UK)

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

Member Institute of Environmental Scientists

Member of America Planning Association

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
East River Waterfront Esplanade Project
NY, NY

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Cameron is managing a sustainability task force team to develop sustainability guidelines for the Waterfront project. The unique site is over two miles long and is being regenerated as part of a city wide initiative to improve access to parks and improve the waterfront area. All buildings within the development will seek LEED certification. As part of the work Cameron is investigating a rain water harvesting system which spans the length of the project. He is also investigating the potential use of on-site renewable technologies as well as the sourcing and selection for the significant volume of construction materials.

b.

(1) TITLE AND LOCATION *(City and State)*
Coney Island Steeplechase Plaza
Brooklyn, NY

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2012	N/A

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Coney Island is a historical beachfront of New York City which has strong local and cultural significance. Cameron worked with the project team to develop sustainable strategies for a new park and plaza on the beachfront. The project will incorporate the Historically Landmarked Parachute Jump and seek to use sustainable materials for park furnishings whilst incorporating water and energy reduction strategies throughout the site.

c.

(1) TITLE AND LOCATION *(City and State)*
Sustainable DC: Vision 2032
Washington, DC

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	N/A

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Manager, in collaboration with Ayers Saint Gross, leading the development of Mayor Gray's visionary Sustainability Implementation Plan, which aims to position DC at the leading edge of urban sustainability. Arup applied a wide range of technical skills to identify, evaluate and develop practical strategies across priority sustainability areas.

d.

(1) TITLE AND LOCATION *(City and State)*
Abu Dhabi Eco-Park
Abu Dhabi, UAE

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Cameron worked with an international team to develop a masterplan for a new development for Abu Dhabi in the UAE. The masterplan was for a new sustainable mixed-used development adjacent to the waterfront which is being designed to be energy and water independent. Cameron helped develop a sustainability framework, strategies and advised on technologies to achieve the project goals.

e.

(1) TITLE AND LOCATION *(City and State)*
St. Elizabeths East Campus Master Plan
Washington, DC

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Manager and Lead Sustainability Consultant for the redevelopment of St Elizabeth's East Campus into a mixed-use site. The site is a former psychiatric hospital with many landmark buildings. Arup is working with Ayers Saint Gross to develop an overall sustainability framework and sustainable infrastructure strategies for a master plan.

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Peter Tillson	Structural engineer	27	26

15. FIRM NAME AND LOCATION *(City and State)*

Arup – New York, New York

16. EDUCATION *(Degree and Specialization)*	17. CURRENT PROFESSIONAL REGISTRATION *(State and Discipline)*
BE (1st class Hons), Civil Engineering, University of Canterbury, New Zealand, 1983	PE, State of New York

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, etc.)*

American Concrete Institute (ACI)

American Society of Civil Engineers (ASCE)

American Institute of Steel Construction (AISC)

ASCE Management Practices in Construction

19. RELEVANT PROJECTS

a.

(1) TITLE AND LOCATION *(City and State)*
Toronto Central Waterfront
Toronto

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	2013

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Structural Engineer for concept design of a timber, steel and reinforced concrete esplanade in the historic waterfront. Timbers were selected to be naturally durable and as much as possible locally available.

b.

(1) TITLE AND LOCATION *(City and State)*
Hunters Point South
Long Island City, NY

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2013	2013

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Structural Engineer for a waterfront park located in Long Island City being developed by NYCEDC. The park includes pavilions, canopies and a large lookout structure.

c.

(1) TITLE AND LOCATION *(City and State)*
Teardrop Park
New York, NY

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2005	2005

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Manager & Structural Engineer for a park located in downtown Manhattan – in the Battery Park City Development area. The park is situated among four tall buildings and incorporates elemental site features that recall the natural landscape of New York State. These elements took the form of stone structures, earth forms, water features and landscape. The park is constructed over the surrounding building's basement.

d.

(1) TITLE AND LOCATION *(City and State)*
Hudson River Park
City, State

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
Ongoing	Ongoing

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Structural Engineer for Arup's park-wide design coordination services for the Hudson River Park development from Battery Park City to 59th Street. The 550-acre, 5-mile-long project will regenerate the historic waterfront, and includes the continuous esplanade and reconstruction of 13 piers on the west-side of Manhattan.

e.

(1) TITLE AND LOCATION *(City and State)*
East River Waterfront Esplanade and Piers
New York, NY

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(If Applicable)*
2014	2014

(3) BRIEF DESCRIPTION *(Brief Scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Project Structural Engineer for the joint-venture appointed by NYC Economic Development Corporation for all engineering and management services for the two-mile East River Waterfront Esplanade and Piers project in lower Manhattan. Specific responsibility for managing the interface and collaboration with EDC's Architecture Team and coordinating delivery.

ARCHITECT – ENGINEER QUALIFICATIONS

PART I – CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

St. Petersburg Pier

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
August 11, 2014	N/A

B. ARCHITECT – ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Dan Brodkin

5. NAME OF FIRM

Arup USA, Inc.

6. TELEPHONE NUMBER	7. FAX NUMBER	8. EMAIL ADDRESS
212-896-3000	N/A	Daniel.Brodkin@arup.com

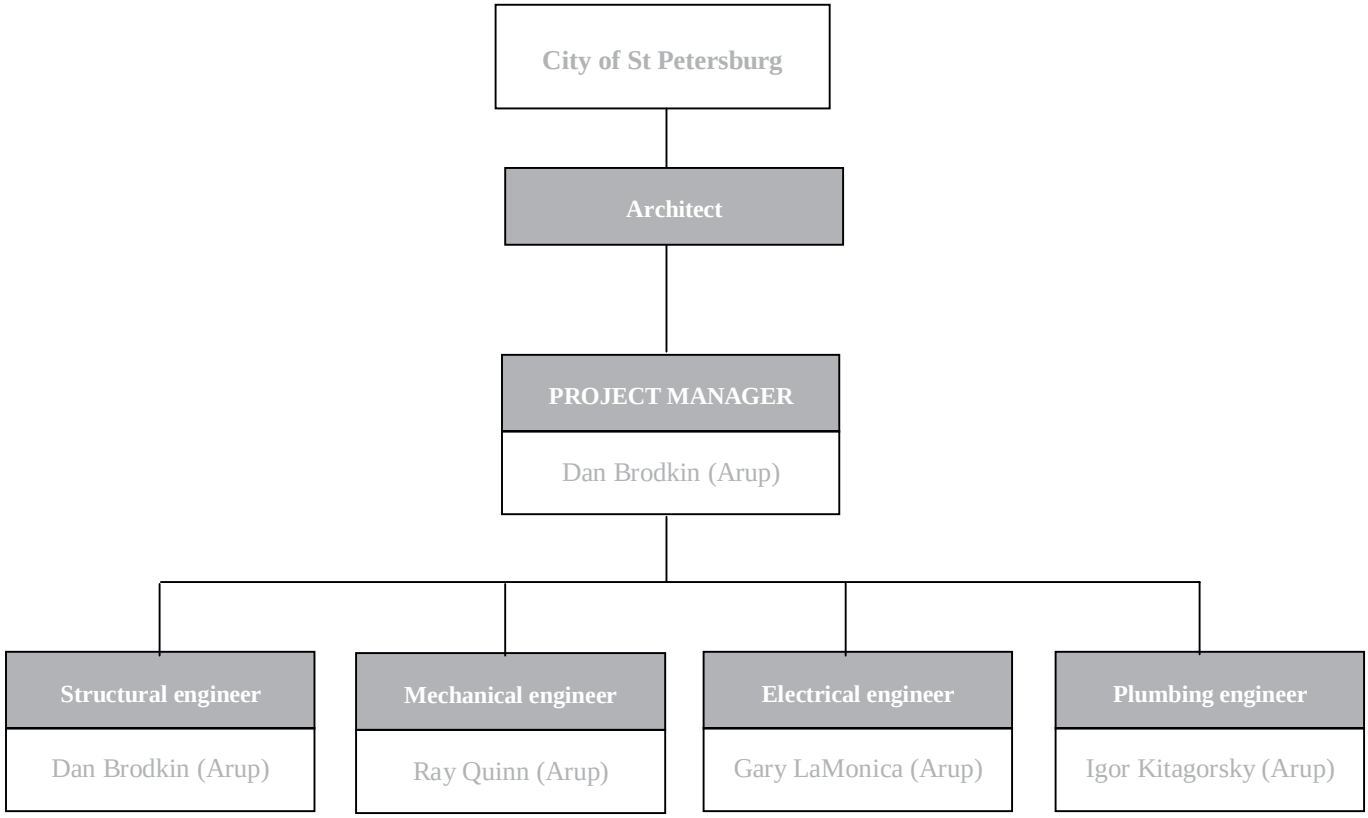
C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors)

	CHECK ITEMS			9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
	PRIME	J-V PARTNER	SUB CONTRACTOR			
a.				XXX ☐ CHECK IF BRANCH OFFICE	XXX	XXX
b.			X	Arup USA, Inc. ☐ CHECK IF BRANCH OFFICE	77 Water Street, NY, NY 10005	SMEP engineering
c.				XXX ☐ CHECK IF BRANCH OFFICE	XXX	XXX
d.				XXX ☐ CHECK IF BRANCH OFFICE	XXX	XXX
e.				XXX ☐ CHECK IF BRANCH OFFICE	XXX	XXX
f.				XXX ☐ CHECK IF BRANCH OFFICE	XXX	XXX

D. ORGANIZATIONAL CHART OF PROPOSED TEAM ☐ (Attached)

ORGANIZATIONAL CHART OF PROPOSED TEAM



G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, block 12)	27. ROLE IN THIS CONTRACT (From Section E, block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role)									
		1	2	3	4	5	6	7	8	9	10
Dan Brodkin	Project Manager, Lead Structural Engineer	X	X				X				
Raymond Quinn	Lead MEP Engineer		X	X			X				
Gary LaMonica	Lead Electrical Engineer	X	X		X	X					
Igor Kitagorsky	Lead Plumbing Engineer					X	X				
Cliff McMillan	Civil/Maritime Engineer				X	X		X	X	X	
Pete Tillson	Structural Engineer							X	X	X	
Vincent Lee	Civil Engineer							X	X	X	
Trent Lethco	Transport Planning				X	X					
Brian Stacy	Lead Lighting Designer	X	X		X	X		X	X		
Cameron Thomson	LEED/Sustainability				X		X		X		
XX	XX										
XX	XX										
XX	XX										
XX	XX										
XX	XX										
XX	XX										
XX	XX										
XX	XX										
XX	XX										
XX	XX										

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Pérez Art Museum Miami Museum Park, FL	6	Institute of Contemporary Art Boston, Massachusetts
2	Miami Science Museum Miami, Florida	7	Hudson River Park New York, New York
3	FSC Polk County Science Building Lakeland, Florida	8	Hunter's Point South Long Island City, NY
4	East River Waterfront Esplanade and Piers New York, New York	9	Pier A New York, New York
5	Teardrop Park, Battery Park City New York, New York	10	

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

Firm profile

Who we are

Arup is the creative force at the heart of many of the world's most prominent projects in the built environment and across industry. We offer a broad range of professional services that combine to make a real difference to our clients and the communities in which we work. We are truly global: 90 offices in 38 countries with 11,000 planners, designers, engineers and consultants deliver innovative projects across the world with creativity and passion.

Founded in 1946 with an enduring set of values, our unique trust ownership fosters a distinctive culture and an intellectual independence that encourages collaborative working. This is reflected in everything we do, allowing us to develop meaningful ideas, help shape agendas and deliver results that frequently surpass the expectations of our clients. The people at Arup are driven to find a better way and to deliver better solutions for our clients. We shape a better world.

Our approach

The ideals and principles of Sir Ove Arup, the founder of the firm, are a driving force in the practice. Foremost among these are belief in "total design", the integration of the design and construction process and the interdependence of all the professionals involved; the creative and innovative nature of engineering design; the value of ingenuity and invention and the social purpose of design; the ability to think beyond the boundaries of one's chosen disciplines to help the other team members. Small design teams, each under the guidance of a Project Director, ensure we provide clients with the personal, professional service to which we are committed. Project teams can call on an extensive range of specialist support from central technical services to complement their own skills. Many of the specialists employed are world authorities in their fields.

Government

Arup has a long history of working with public agencies and advocacy groups to create and complete successful government projects. We are committed to creating high quality government buildings on time and at reasonable cost. We understand that these facilities are a vital asset to our nation and citizens. Good design adds value to government projects. Our breadth of world-class expertise and our track record of innovation allow us to address government's unique environmental, operational and social responsibility goals. In many instances our government clients have achieved special recognition as a result of our work, both in the built environment and beyond.

Recreational waterfront facilities

As the population continues to grow there is a shift to urban centers creating an increased need and recognition of the value of designing quality urban places for work, live, and play. Arup is continually searching for ways to make truly sustainable places. Achieving this requires an approach that encompasses urban design, planning, transportation, landscape, infrastructure, sociology and economics. Control structures are required to reduce flood risks to improve hydraulic flow and to facilitate navigation. Many new canals are now being built to improve recreational opportunities and to enhance the value of adjacent sites. We have worked for private developers and authorities designing a range of hydraulic structures including flood defenses, locks and weirs.

Renovation/Adaptive reuse

Buildings by nature have long lives, but the requirements of occupiers have shorter horizon. There is an increasing risk that underperforming buildings will become obsolete long before their useful life is over. Business models, operational needs and technology evolve rapidly and your buildings must be able to respond quickly to maintain value. High-performing buildings are more able to respond to changing business needs, providing flexibility in the types of spaces available and accommodating changing technology and evolving electronic communication networks. High-performing buildings also create better environments, improving how businesses deliver - better offices can help increase worker productivity. Arup has extensive experience assisting businesses to embrace sustainability and transforming their properties. Our expertise covers the complete property lifecycle of new green buildings through to retrofitting of existing assets and developing strategies to reduce energy use and change behaviors.

Specific expertise

MEP engineering

Mechanical, electrical and plumbing engineering are integral to Arup's integrated building engineering services. The goal of our MEP practice is to design energy-efficient core building services that support occupant comfort, health and well-being. Each discipline is aided by skills networks that share knowledge across a broad range of issues including design, theory, analysis, construction techniques and design solutions. These networks help to leverage the skills and capabilities of the entire firm, providing clients with a powerful international resource at a local level.

Commissioning

Arup's commissioning experts make sure that buildings meet performance requirements throughout their lifespans. Commissioning is particularly critical for sustainable design: even the most environmentally friendly building can perform poorly if its systems are not properly commissioned. Our commissioning services involve all technologies and systems found in the built environment and include condition surveys, site inspections, system design specifications, building network integration, integrated systems technology, project management, value engineering studies, budget estimates, vendor selection and procurement strategies, energy management, energy audits, problem solving, operations and maintenance manuals, and engineering and contingency planning.

LEED/Sustainability

Arup provides sustainability advice on a wide range of environmental, social and economic issues. These services can be provided either alone or as part of a package, incorporating the firm's wider planning, design, engineering and management skills. We offer comprehensive services aimed at developing and implementing policies, plans, strategies and management systems, assessing impacts, managing risk, designing mitigation measures, gaining regulatory approvals, undertaking audits and reviews, reporting publicly and controlling costs. At Treasure Island in San Francisco, Arup is advising on transportation planning, site infrastructure and sustainability strategies, helping to transform a former naval base into a 6,000- unit residential and mixed-use development.

Arup teams in all regions are experienced in helping clients gain the green building accreditations for new and existing buildings. We have provided critical services in earning high LEED ratings for many projects, including the LEED Platinum Northern Arizona University Applied Research and Design, Kresge Foundation Headquarters, and Syracuse Center for Excellence, among others.

Transportation engineering and planning

Arup offers a complete range of transportation planning and engineering skills, from initial assessment to implementation and construction. Our scope of expertise encompasses transportation planning, traffic engineering and development planning. We believe that effective transportation planning is an integral component of sustainable development. Our planners see the big picture. Arup is a fully integrated planning and engineering firm with a culture of collaboration across disciplines. Our transportation planners are supported by a wide range of specialists including civil engineers, transit and highway infrastructure designers and sustainability consultants.

Lighting design

We offer a comprehensive lighting design, from initial strategic advice and concept development through construction documents and on-site support. Our approach operates at the cross roads of art, science and technology; and always combines conceptual design thinking and technical expertise. Our work is a testament to the meaningful application of light in architecture, finding purposeful ways to make buildings expressive, coherent and visually strong in engaging with people. It is our responsibility to combine this holistic vision with the ever emerging range of technical possibilities to achieve a sustainable lighting solution.

Civil engineering

Arup provides design, procurement, project management and supervision services across the broad field of civil engineering, which encompasses disciplines from geotechnics to lighting. With decades of experience on projects around the world and significant expertise in site selection and evaluation, economics, engineering and infrastructure design, we offer high-value service to collaborators and clients. Arup's civil engineering expertise includes economic assessment and feasibility studies, masterplanning, urban design, landscape design, geotechnics, foundation engineering, hydrology, transportation planning, environmental assessment, lighting, and advice on statutory planning requirements and public inquiries.

Structural engineering

From the Sydney Opera House to Centre Pompidou in Paris to CCTV in Beijing, the firm's highly skilled structural engineers understand not only structural theory but all the processes of design and construction. Arup's expertise makes the most ambitious structures buildable. The ability to design buildings that are stable, strong, stiff and durable under all imposed conditions while using materials efficiently is the essence of structural engineering. Arup teams are skilled in designing structures of economy and elegance to realize architects' and clients' ambitions.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE

32. DATE

08/28/2014

33. NAME AND TITLE

Dan Brodkin, Principal

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (if any): N/A

PART II – GENERAL QUALIFICATIONS

(If firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM NAME (or Branch Office): **Arup USA, Inc.**		3. YEAR ESTABLISHED: 1999	4. DUNS NUMBER: 023255081
2b. STREET: 77 Water Street		5. OWNERSHIP	
2c. CITY: New York	2d. STATE: NY / 2e. ZIP CODE: 10005	a. TYPE: Professional Corporation	
6a. POINT OF CONTACT NAME AND TITLE: Dan Brodkin, Principal		b. SMALL BUSINESS STATUS: N/A	
6b. TELEPHONE NUMBER: +1 212 896 3000	6c. E-MAIL ADDRESS: daniel.brodkin@arup.com	7. NAME OF FIRM (If Block 2a is a branch office): Arup Group Ltd.	

8a. FORMER FIRM NAMES *(If any)*	8b. YEAR ESTABLISHED	8c. DUNS NUMBER
Ove Arup & Partners Massachusetts Inc.	1999	023255081

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
01	Acoustics	23	13
02	Administration	48	14
04	Airport Planning	12	
06	Architecture	1	
08	CAD	82	21
12	Civil	97	19
18	Cost & Quantity Surveying	1	
20	Economic Planning	2	
21	Electrical	56	12
23	Environmental (including Ecological Sustainable Design)	21	11
02	Facilities Management	12	7
02	Finance	31	9
25	Fire	28	5
27	Geotechnical	31	8
29	GIS	1	
60	Highways	3	
02	Human Resources	17	5
13	IT/Communications	32	12
02	Legal	3	2
37	Lighting	14	8
48	Management Consultancy	3	
02	Marketing	24	8
42	Mechanical	129	35
48	Project Management	23	15
31	Public Health/Plumbing	27	9
50	Risk Assessor	4	
54	Security Specialist	4	3
57	Structural	172	41
60	Transport Planning	35	14
62	Water	2	1

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A01	Acoustics, Noise Abatement	7
A06	Airports; Terminal and Hangars; Freight Handling	6
B02	Bridges	7
S13	Storm Water Handling Facilities	7
I06	Irrigation; Drainage	7
S10	Surveying; Platting; Mapping; Flood Plain Studies	6
W02	Water Resources; Hydrology; Ground Water	6
W03	Water Supply; Treatment and Distribution	6
S04	Sewage Collection, Treatment and Disposal	5
E08	Engineering Economics	4
E03	Electrical Studies and Design	8
E07	Energy Conservation; New Energy Sources	6
S11	Sustainable Design	6
S06	Solar Energy Utilization	3
V01	Value Analysis; Life-Cycle Costing	3
C08	Codes; Standards; Ordinances	6
F03	Fire Protection	6
G04	Geographic Information System Services; Development, Analysis, and Data Collection	6
S05	Soils & Geologic Studies; Foundations	6
H07	Highways; Streets; Airfield Paving; Parking Lots	4
L05	Lighting (Interior; Display; Theater, Etc.)	5
L06	Lighting (Exteriors; Streets; Memorials; Athletic Fields, Etc.)	5
H04	Heating; Ventilating; Air Conditioning	9
R06	Rehabilitation (Buildings; Structures; Facilities)	7
C15	Construction Management	7
P07	Plumbing & Piping Design	7
R03	Railroad; Rapid Transit	3
R10	Risk Analysis	4
S02	Security Systems; Intruder & Smoke Detection	4
S09	Structural Design; Special Structures	9

	OTHER	47	16	S03	Seismic Designs & Studies	6
				M08	Modular Systems Design; Pre-Fabricated Structures or Components	6
				T03	Traffic & Transportation Engineering	7
				T06	Tunnels & Subways	5
	TOTAL	**985**	**288**			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS *(Insert revenue index number shown at right)*	
a. Federal Work	8
b. Non-Federal Work	10
c. Total Work	**10**

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE
The foregoing is a statement of facts.

a. SIGNATURE

b. DATE
08/28/2014

c. NAME AND TITLE
Dan Brodkin, Principal

State of Florida
Department of State

I certify from the records of this office that ARUP USA, INC. is a Massachusetts corporation authorized to transact business in the State of Florida, qualified on April 25, 2001.

The document number of this corporation is F01000002211.

I further certify that said corporation has paid all fees due this office through December 31, 2014, that its most recent annual report/uniform business report was filed on April 27, 2014, and its status is active.

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

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Twenty-ninth day of July, 2014

Ken Detzner

Secretary of State

Authentication ID: CU9369604175

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

https://efile.sunbiz.org/certauthver.html

State of Florida
Board of Professional Engineers
2639 North Monroe Street, Suite B-112
Tallahassee, FL 32303-5268

Arup USA, Inc.
77 WATER ST
5TH FLOORAttn: Sandy Rai
NEW YORK, NY 10005

Each licensee is solely responsible for notifying the Florida Board of Professional Engineers in writing the licensee's current address.

Name changes require legal documentation showing name change. An original, a certified copy, or a duplicate of an original or certified copy of a document which shows the legal name change will be accepted unless there is a question about the authenticity of the document raised on its face, or because the genuineness of the document is uncertain, or because of another matter related to the application.

At least 90 days prior to the expiration date shown on this license, a notice of renewal will be sent to your last known address. If you have not yet received your notice 60 days prior to the expiration date, please call (850) 521-0500, or write, Florida Board of Professional Engineers, 2639 North Monroe Street, Suite B-112,Tallahassee, FL 32303-5268 or e-mail: board@fbpe.org. Our website address is http://www.fbpe.org.

State of Florida

Board of Professional Engineers

Attests that

Arup USA, Inc.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.

Expiration: 2/28/2015
Audit No: 228201504927 D

Certificate of Authorization

CA Lic. No:
8898

THE UNIVERSITY OF THE STATE OF NEW YORK

Commemorating 100 Years of Professional Regulation 1891 1991

EDUCATION DEPARTMENT

BE IT KNOWN THAT

DANIEL BRODKIN

HAVING GIVEN SATISFACTORY EVIDENCE OF THE COMPLETION OF PROFESSIONAL AND OTHER REQUIREMENTS PRESCRIBED BY LAW IS QUALIFIED TO PRACTICE AS A

PROFESSIONAL ENGINEER

IN THE STATE OF NEW YORK

IN WITNESS WHEREOF THE EDUCATION DEPARTMENT GRANTS THIS LICENSE
UNDER ITS SEAL AT ALBANY, NEW YORK
THIS SIXTH DAY OF AUGUST, 1992

LICENSE NUMBER
069315

Thomas Sobol

Douglas C. Hasbrouck

2120041

Office of the Professions

Verification Searches

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License Information *

08/28/2014

Name : LAMONICA GARY W
Address : OAKLAND GARDENS NY
Profession : PROFESSIONAL ENGINEERING
License No: 082058
Date of Licensure : 07/20/04
Additional Qualification :
Status : REGISTERED
Registered through last day of : 09/15

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Office of the Professions

Verification Searches

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License Information *

08/28/2014

Name : QUINN JOHN RAYMOND
Address : NEW YORK NY
Profession : PROFESSIONAL ENGINEERING
License No: 074774
Date of Licensure : 08/07/97
Additional Qualification :
Status : REGISTERED
Registered through last day of : 11/14

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