SOQ 006-Design and Construction Administration of a New East Bank Jefferson Parish Animal Adoption & Services Facility

Jefferson Parish Government

Technical Evaluation Committee (TEC) Questionnaire Instructions

- The Technical Evaluation Committee (TEC) Questionnaire shall be used for professional services related to architecture, engineering, or survey projects.
- **The TEC Questionnaire should be completely filled out. Complete and attach ALL sections. Insert "N/A" or "None" if a section does not apply or if there is no information to provide.**
- Questionnaire must be signed by an authorized representative of the Firm. Failure to sign the questionnaire shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- All subcontractors must be listed in the appropriate section of the Questionnaire. Each subcontractor must provide a complete copy of the TEC Questionnaire, applicable licenses, and any other information required by the advertisement. Failure to provide the subcontractors' complete questionnaire(s), applicable licenses, and any other information required by the advertisement shall result in disqualification of proposer pursuant to J.P. Code of Ordinances Sec. 2-928.
- If additional pages are needed, attach them to the questionnaire and include all applicable information that is required by the questionnaire.

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ # 23-006 Resolution No. 141465 - Design and Construction Administration of a New East Bank Jefferson Parish Animal Adoption & Services Facility.

B. Firm Name & Address:

Greenleaf Architects, APAC
404 E. Gibson Street
Suite 1
Covington, LA 70433

C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

Justin M. Greenleaf, AIA, NCARB
Owner | Principal Architect
License # 7779
jgreenleaf@greenleafarch.com
985-778-2080

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.

Nathaniel Frank, AIA, NCARB
Director of Operations | Architect
License # 8929
nfrank@greenleafarch.com
985-778-2080

E. Please provide the number of employees whose primary function corresponds with each category:

_3_ Administrative	___ Estimators	___ Specification Writers
_4_ Architects (Licensed)	___ Geologists	___ Structural Engineers
___ Chemical Engineers	___ Geotechnical Engineers	___ Graduate Engineers
___ Civil Engineers	_3_ Interior Designers	_4_ Project Managers
_1_ Construction Inspectors	___ Landscape Architects	___ Clerical
___ Ecologists	___ Land Surveyor	___ Grant/Funding Specialist
___ Electrical Engineers	___ Mechanical Engineers	___ Sanitary Engineers
___ Engineer Intern	___ Environmental Engineers	
___ Professional Land Surveyors		**_15_ TOTAL**

F. Is this submittal by a JOINT-VENTURE? Please check: YES NO X

If marked "No" skip to Section I. If marked "yes" complete Sections G-H.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.

1. N/A

2. N/A

H. Has this JOINT-VENTURE previously worked together? Please check: N/A

YES **NO**

I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. Eustis Engineering L.L.C. 3011 28th Street Metairie, LA 70002 504-834-0157	Geotechnical Engineeering	Yes
2.		
3.		

J. Please specify the total number of support personnel that may assist in the completion of this Project:

10 More employees can be added, as necessary, to complete any project.

TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e. resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Justin M. Greenleaf, AIA, NCARB
Owner | Principal Architects

Project Assignment:

Project Architect

Name of Firm with which associated:

Greenleaf Architects, APAC

Years' experience with this Firm:

8

Education: Degree(s)/Year/Specialization:

Bachelor of Architecture – Louisiana State University 2009

Active registration: Year first registered/discipline:

2012 - Architectural Professional License # 7779

Other experience and qualifications relevant to the proposed Project:

Greenleaf Architects has been involved in a number of Government and Public Work based projects. Broadly ranging from fire stations & headquarters, to renovations to public universities, to local elementary school additions, and beyond, our firm has gained experience in projects in the government and public sector.

- St. Tammany Fire District No. 1 Station 13 - Slidell, LA
- St. Tammany Fire District No. 1 Headquarters - Slidell, LA
- Louisiana State University Jesse Coates Laboratory - Baton Rouge, LA
- Louisiana State University Chemical Engineering Building - Baton Rouge, LA
- Mandeville City Hall - Mandeville, LA
- Magnolia Trace Elementary School - Mandeville, LA
- Coroner's Office - Lacombe, LA
- Ozone Park - Covington, LA

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Nathaniel Frank, AIA, NCARB
Director of Operations | Architects

Project Assignment:

Project Architect

Name of Firm with which associated:

Greenleaf Architects, APAC

Years' experience with this Firm:

4

Education: Degree(s)/Year/Specialization:

Bachelor of Architecture – Louisiana State University 2015

Active registration: Year first registered/discipline:

2018 - Architectural Professional License # 8929

Other experience and qualifications relevant to the proposed Project:

Nathaniel has experience working on projects of various scale and complexity, including civic, medical, religious, residential, and industrial developments and brings innovative solutions to each client's design. By pairing his skills in cross-disciplinary project management with Building Information Modeling, Nathaniel ensures projects benefit their users for years to come.

- A New Day Center for The Willie Paretti Day Center (Family Promise) - Mandeville, LA
- A New Steeple for St. Andrew the Apostle - New Orleans, LA
- A Master Plan for Safe Haven - Mandeville, LA
- A New Corporate Headquarters for Ampirical Solutions - Covington, LA
- Renovations to a Westbank Location for Dynamic Physical Therapy - Westwego, LA

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Logan Pittman, NCARB
Architect

Project Assignment:

Support

Name of Firm with which associated:

Greenleaf Architects, APAC

Years' experience with this Firm:

7

Education: Degree(s)/Year/Specialization:

Bachelor of Architecture – Clemson 2011
Masters in Architecture – Louisiana State University 2013

Active registration: Year first registered/discipline:

2018 - Architectural Professional License # 8985

Other experience and qualifications relevant to the proposed Project:

Logan's design experience includes commercial, educational, municipal, civic, mixed-use, medical, and industrial projects. Prior to joining Greenleaf Architects, she participated in a diverse amount of projects within Louisiana Parishes.

- City of New Orleans Emergency Maintenance Facility - Central Maintenance Facility - New Orleans, LA
- St. Tammany Parish Public Defender's Office Renovations - Covington, LA
- Plaquemines Parish Law Enforcement District Administration + Training Facility - Belle Chasse, LA
- Plaquemines Parish New Court House - Pointe à la Hache, LA
- A New Corporate Headquarters for Globalstar - Covington, LA
- A New Corporate Headquarters for Netchex - Mandeville, LA
- A New Corporate Headquarters for Florida Marine Transporters - Mandeville, LA

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Kyle Schroeder, AIA, NCARB
Director of Design | Architect

Project Assignment:

Support

Name of Firm with which associated:

Greenleaf Architects, APAC

Years' experience with this Firm:

6

Education: Degree(s)/Year/Specialization:

Bachelor of Architecture – Louisiana State University 2016

Active registration: Year first registered/discipline:

2022 - Architectural Professional License # 9750

Other experience and qualifications relevant to the proposed Project:

Since Kyle's start in May 2016 with Greenleaf Architects, he has partaken in a wide range of architectural tasks - including design, project management, and construction administration - working closely with clients, contractors, and co-workers on every step of the architectural process. Kyle has also produced three-dimensional renderings and videos for clients to experience their projects before they are physically built. He has been involved in the schematic and initial design phase and has sought projects through completion.

- A Renovation for 1555 Poydras Lobby - New Orleans, LA
- A New Clinic for Our Lady of the Lake Physician's Group - Bush, LA
- A New Retail Location for The Backpacker - Mandeville, LA
- A New Behavorial Health Unit for Our Lady of the Angels Hospital - Bogalusa, LA
- A Lobby for River Chase Building I, Covington, LA
- A New Office for T. Baker Smith Office, Prairieville, LA
- A New Office for Fleur de Lis Law & Title, Covington, LA

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
N/A
Project Assignment:
N/A
Name of Firm with which associated:
N/A
Years' experience with this Firm:
N/A
Education: Degree(s)/Year/Specialization:
N/A
Active registration: Year first registered/discipline:
N/A
Other experience and qualifications relevant to the proposed Project:
N/A

TEC Professional Services Questionnaire

L. Work by Firm or Joint-Venture members which best illustrates current qualifications relevant to this Project. Please include any and all work performed for Jefferson Parish. Please attach additional pages if necessary.

PROJECT NO. 1

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Ampirical Solutions Matthew Saacks 1654 Ochsner Boulevard Covington, LA 70433	A newly constructed corporate headquarters and award-winning custom designed office building with meeting rooms, training rooms, offices, and employee areas.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2021	$20,000,000	$18,500,000

PROJECT NO. 2

Project Name, Location and Owner's contact information:	Nature of Firm's Responsibility:	
Pan American Life Center Stirling Properties 601 Poydras Street New Orleans, LA 70130	A 33,000 square foot renovation to Floor 11 and a new lobby renovation.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2020	$4,200,000	$4,200,000

TEC Professional Services Questionnaire

PROJECT NO. 3		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility**	
1555 Poydras Street East Skelly, LLC 1515 Poydras Street Suite 105 New Orleans, LA 70112	A renovation of the lobby and public spaces.	
Completion Date (Actual or estimated)	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2022	$1,000,000	$1,000,000

PROJECT NO. 4		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
St. Tammany Fire District No. 1 Chief Kaufmann 1358 Corporate Square Slidell, LA 70458	A newly constructed fire station and headquarters for St. Tammany Fire Dist. No. 1.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2019	$2,100,000	$2,100,000

TEC Professional Services Questionnaire

PROJECT NO. 5		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
STPSB Playgrounds St. Tammany Parish School Board Cameron Tipton 321 N. Theard St. Covington, LA 70433	To coordinate, renovate, and design 11 different existing school playgrounds to make them safer and ADA compliant.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2024	$14,000,000	$14,000,000

PROJECT NO. 6		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Coroner's Office City of Mandeville 3101 E. Causeway Approach Mandeville, LA 70448	A newly constructed office for the Coroner in the City of Mandeville.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2023	$540,000	$540,000

TEC Professional Services Questionnaire

PROJECT NO. 7		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Mandeville City Hall Mayor Clay Madden 3101 E. Causeway Approach Mandeville, LA 70448	A newly constructed Council chambers and renovation to the Mandeville City Hall building.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2024	$4,000,000	$4,000,000

PROJECT NO. 8		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Magnolia Trace Elementary School St. Tammany Parish School Board 321 N. Theard Street Covington, LA 70433	48-classroom addition with a state-of-the-art media center.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2024	$15,400,000	$15,400,000

TEC Professional Services Questionnaire

PROJECT NO. 9		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
Walk-On's Bistreaux and Bar Kyle Brechtel 4436 Veterans Memorial Boulevard Metairie, LA 70006	Renovation of existing restaurant inside Clearview mall to become a new Walk-On's location. This included exterior and interior renovation and modifications.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2017	$3,200,000	$3,200,000

PROJECT NO. 10		
Project Name, Location and Owner's contact information:	**Nature of Firm's Responsibility:**	
State Farm Insurance Bryan Schexnayder 1109 N Causeway Boulevard Metairie, LA 70001	Exterior cosmetic renovation and addition with complete interior renovation of existing building.	
Completion Date (Actual or estimated):	**Estimated Cost:**	
	Entire Project:	**Work for which Firm was Responsible:**
2020	$150,000	$150,000

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

Parties:		Status/Result of Case:
Plaintiff:	**Defendant:**	
1. N/A	N/A	N/A
2. N/A	N/A	N/A
3. N/A	N/A	N/A
4. N/A	N/A	N/A

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

See Attached.

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature: _____ **Print Name:** Justin M. Greenleaf

Title: Owner | Principal Architect **Date:** 03/27/2023

Greenleaf Architects is a MULTI-AWARD-WINNING FIRM. Recognized as a two-time New Orleans CityBusiness Reader Rankings Top Winner for Best Architect, a four-time Edge of the Lake Reader's Choice Best Architect Firm winner, a six-time Northshore's Best Architect + Interior Designer winner, one of LSU's One Hundred Fastest Growing Businesses, a multi-year winning New Orleans CityBusiness Best Places to Work Honoree, as well as a Chamber of Commerce Site-to-See two-time winner. All of these awards in just a seven-plus-year span of operation.

Our firm has designed $300+ million in completed construction. In that time, while maintaining licensure from Texas to Florida, we have kept the COMMUNITY in the forefront of our focus. With projects ranging from public to private, to predominately Greater New Orleans Area based work, Greenleaf has the experience to exceed client expectations time and time again.

As the company grew, the decision was made to hire the best - the people who care and want to make a difference. It has proven to be the right decision and has become integral to our company's mission. Greenleaf is now a team of many and work TOGETHER AS ONE. Licensed in each of their prospective fields, our key personnel are driven and dedicated to deliver the most advanced and largest suite of architectural and interior designer skill sets, technology, and creative thinking available.

TECHNOLOGY

Technology services our clients, as well as our design partners - engineers, contractors, and consultants. It is utilized as a critical component of our team's daily operations. People move through life visualizing the spaces we yearn to live, work or play in. It is the Architect's duty to bring all tools to the table when transforming a vision into a reality.

MISSION

WE BUILD a collaborative, multifaceted TEAM that balances strong, PEOPLE-CENTRIC relationships with leading-edge technology to design inspired solutions FROM CONCEPT TO COMPLETION.

BUILDING A TEAM OF LEADERS

As you can see from our mission statement, our focus is different than most. We strive to develop a team of designers, architects, and most importantly, LEADERS. From our team, to the consultants we hire, we concentrate on the best. The best team wins the championship, not one player.

EXPERIENCE

WE ARE INNOVATIVE. WE THINK OUTSIDE THE BOX. In addition to the $300+ million in Construction, individual team members contribute experiences from all walks of life that are seamlessly integrated into our playbook. However- the word "experience" is not used in the correct context. At Greenleaf, our team focuses on YOUR EXPERIENCE throughout this process. We are hired to implement YOUR VISION into YOUR SPACE. We understand and respect the responsibility of a board or individual managing design and construction on behalf of your organization, and that this occurs simultaneously with your "day job". This process should be fun, exciting, and fulfilling for YOU. This is rewarding to our team, and reflected in the process and final product. Let us do the heavy lifting. After all, we have brought the best team to the challenge for this reason.

Our FULL-SERVICE design and consultation firm is interested in PUSHING BOUNDARIES, creating an EXPERIENCE more than simply drawings, and guiding clients through the design and construction process.

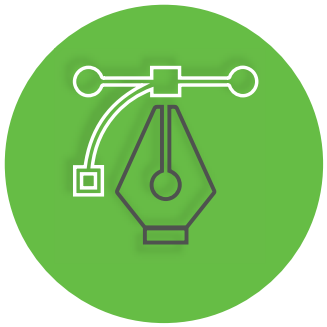
ARCHITECTURE

Drawings are our TOOL. Creative thinking is our SKILL.

Utilizing technology is our METHOD.
Licensed from Texas to Florida, our team of Architects specializes in translating your VISION into REALITY through a careful and thorough process we have curated to bring concepts to completion. Designs are communicated in detail through our presentations and owners are guided every step of the way. Decisions made regarding time, money, materials and construction are made wisely with GUIDANCE and PROFESSIONALISM. Planning, design and constructing should not be overwhelming or a financial bear with the guidance of Greenleaf Architects.

INTERIOR DESIGN

The Interior Design profession requires a great deal of TECHNICAL KNOWLEDGE stepping beyond finish selection. Having a licensed Interior Designer in our Interiors Department allows our team to cater to our clients.
Our team of licensed Interior Designers and Interior Design Interns are qualified by means of education, experience, and examination. This distinct profession encompasses the design of interior non-structural construction and alteration projects. While keeping in mind the complex physical, mental, and emotional needs of people, achieved by analysis, planning, design, documentation, and management through the design of code-compliant, accessible, and inclusive interior environments to protect public health, safety, and welfare in compliance with applicable building design.



PROJECT MARKETING & GRAPHIC DESIGN

A FRESH PERSPECTIVE on your space AND your marketing approach?
LET'S COMPLETE THE PICTURE.

Consistency is a sign of PROFESSIONALISM. It is paramount to penetrate the noise and grab the audience's attention. Our team portrays your message effectively and consistently throughout all office applied graphics and marketing collateral, including print and digital media, to not only create brand cohesiveness, but engage the viewer.

HOW DO WE COMMUNICATE THE DESIGN INTENT?

DIGITAL RENDERINGS

360 DEGREE PANORAMAS

DIGITAL WALK-THROUGHS

ANIMATIONS

FURNITURE SELECTION, DESIGN & SPECIFICATION

SIGNAGE WAY-FINDING SOLUTIONS

LIGHTING SELECTION & DESIGN

> Our RESPONSIBILITY
> and PASSION is to bring
> your DREAM to REALITY.

INNOVATION COLLABORATION EXCEED EXPECTATIONS IMPACT FRESH DEDICATION

OUR RESPONSIBILITY

Our RESPONSIBILITY and passion is to bring your dream to reality. This is accomplished by listening to your wants, needs, and opinions. We cater our SERVICES to be an investment to your project. Rather than just a design, or a means to pull a building permit. Our services should increase the value of your built environment, all while attracting quality employees, and helping your team efficiently carry out all necessary tasks.

You will be guided with the most practical, economical SOLUTION to achieve what you need. This will happen through a series of organized meetings with strategic questions structured to set this project up for SUCCESS.

Once the green-light is received from your team on the overall design our systems will take over. At this time, we will present a timeline broken down very specifically into what you will need, and what we will deliver. PROJECT ORGANIZATION is very important. We have learned this will either make or break a project. This schedule will involve the phases of the design, deadlines, deliverables, updates, and steps to move forward into each phase.

After the road-map is established our team will follow it. We TRUST THE PROCESS. Our team will work diligently through your design, and keep you updated on the progress. Greenleaf will initiate meeting with you and/or your contractor to COLLABORATE. Ensuring the project comes in ON TIME AND BUDGET. Success in a construction project is evident when the facility serves its purpose in its entirety.

> “One of the things I love about the work that we’ve done together is they’ve **COMMUNICATED** extremely well - the **TEAM** has been very **TIGHTLY INVOLVED** every step of the way.”

VICTOR MENASCE P.E.
REAL ESTATE / CONSTRUCTION CONSULTANT
HOST
THE REAL ESTATE ESPRESSO PODCAST


AMPIRICAL
RENDERING


AMPIRICAL
RESULT


RENDERING


RESULT


RENDERING


RESULT


RENDERING

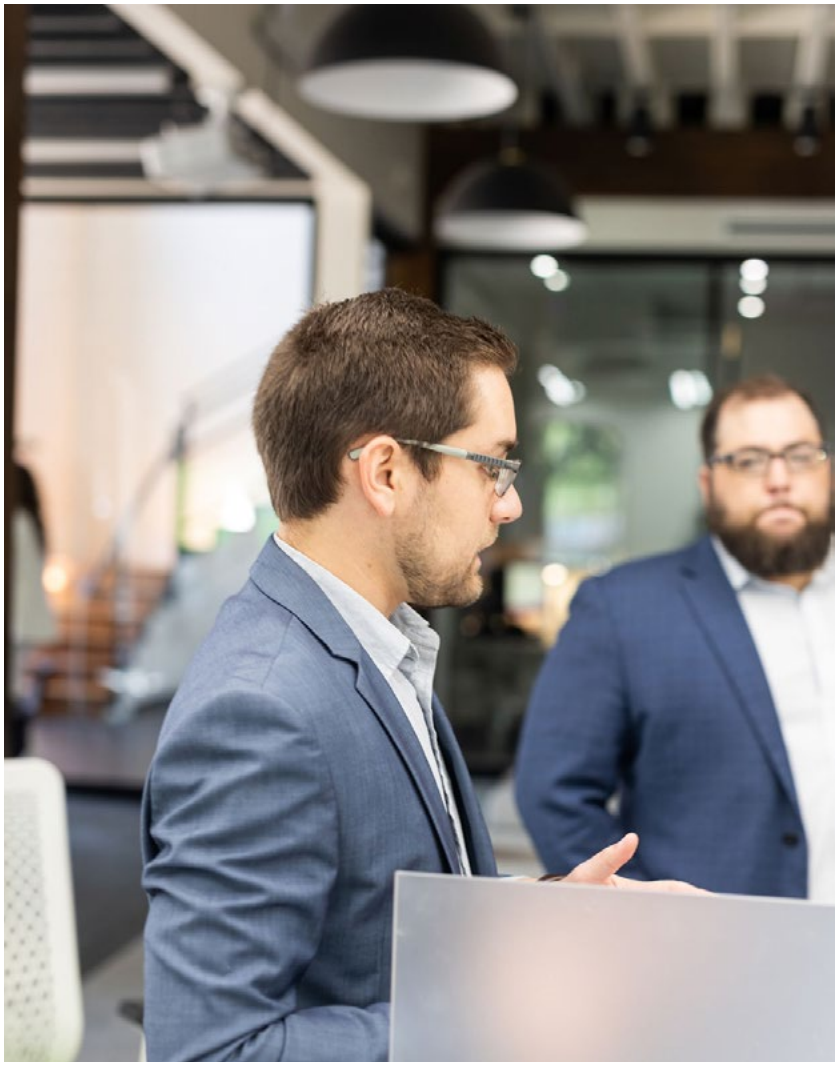

RESULT

> We integrate the DETAIL of your program into building systems that will help your business FLOW and OPERATE.

PROJECT MANAGEMENT

With COMMUNICATION as the foundation, we can maintain PROJECT SCHEDULES, and OWNER BUDGETS. Regardless of size and scope. This involves open lines of communication maintained with both the owner, the team, and the contractor. With EFFICIENT MANAGEMENT and qualified, dedicated staff and project managers, our teams run efficiently throughout the design and construction document phases. Consistently producing Construction Documents (CDs) for projects in SHORTER THAN TYPICAL time-frames for our clients.

With the utilization of REVIT we can produce designs that describe more to the client, allowing revisions to become much quicker. This allows us to get into the CD phase of the project on a shorter duration, thus decreasing the overall project duration and ultimately, the cost of the project to the owner.



PROJECT PHASING

Our firm has extensive experience with PHASED CONSTRUCTION while maintaining an operating campus.

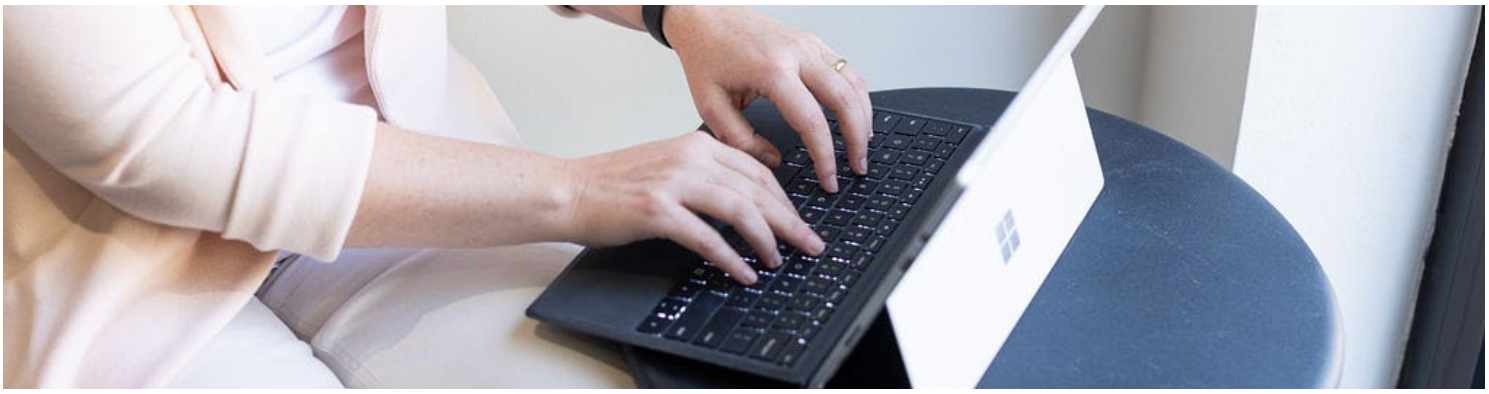
Our TOOLS allow for phased models that illustrate ACCURATE phasing plans. Our models not only provide the necessary documents for construction, but include time-frames for phases to help identify what is a critical path as we move into construction. These models continue to be updated as construction takes place.

PROCESSES AND PROCEDURES

Our team also has PROCESSES and PROCEDURES in place for our day to day operations.
These process and procedures allow for our team to follow a road-map throughout each project.

Some of these are as follows:

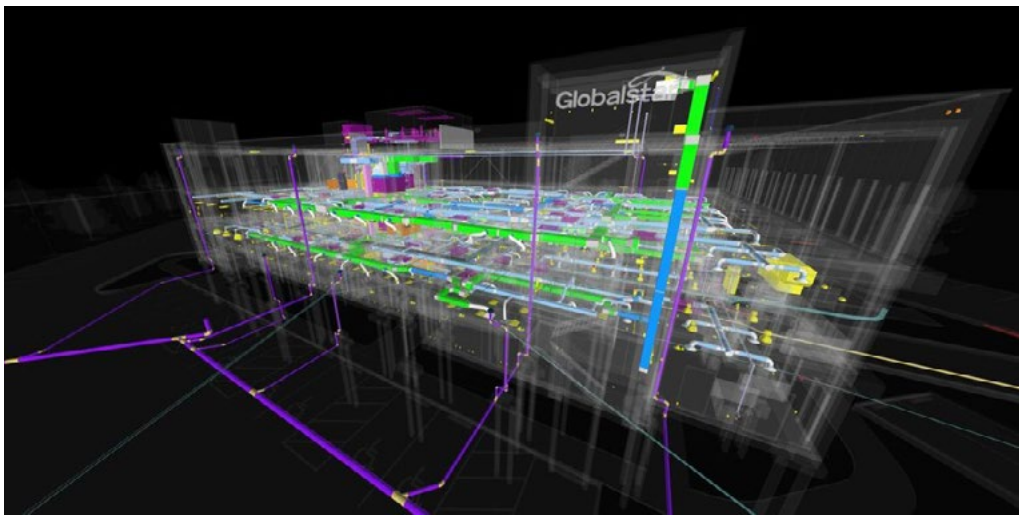
- Additional team members to review any document that leaves the office
- Meeting minutes to be taken and dispersed within 48 hours of the meeting
- Online project folders containing every document of the project
- Project timelines to eliminate any confusion on the progress in the design phase
- The ability to give the client a digital walk-through at any point in the project
- Mandated Revit drawings by all consultants and BIM Clash Detection Reports for coordination
- 3D details in our drawing set to ensure the contractor's bid is as accurate as possible
- The use of BlueBeam Software to review, markup, red-line, and coordinate with any of the project team anywhere, anytime, in real-time. This is especially valuable when the contractor keeps a live digital set of drawings on a screen in the job trailer and allows everyone to always have the latest set of drawings
- One main point of contact for every project from concept to completion
- The ability for any member of the design team to produce every type of document - drawings, renderings, and/or digital walk-throughs
- Live "smart" takeoffs to help Contractors establish budgets



These processes and procedures are firm-wide. The owner will receive the same QUALITY from any of our team members. This allows for CONSISTENCY in all documents that are produced and allows for an easy transition in the unforeseen circumstance that others would need to step into the project.

> Have comfort in KNOWING you
> are making proper DESIGN decisions

BUILDING INFORMATION MODELING



- In-House Tool
- Time Saver
- Clash Detection
- Improved Productivity
- Study Thermal Comfort
- Collaborate in Real Time
- Improve Building Performance

This intelligent 3-Dimensional model-based PROCESS provides architects, engineers, and construction professionals the insight to plan more efficiently.

We build your design before you build it.

Buildings have been designed for years with paper and pencil. That can be done, but it may cost you time, money, or result in a product that you are less than satisfied with. Why not view every detail of your building digitally and 3-Dimensionally before beginning construction?

Paired with young FRESH ideas that transcend time, Greenleaf Lawson Architects solutions see beyond physical or financial limits. Integrating through the initial stages of design, through intelligent model-based Building Information Modeling BIM. Efficiently locating clashes between trades; allowing COLLABORATION in real-time, while ultimately improving building performance. This 3D modeling program allows us to digitally build before construction, making decisions easier and less expensive. This is then taken a step further by producing realistic renderings, building walk-throughs, and site flyovers.

COLLABORATION TOOLS

- Additional team members to review any document that leaves the office
- Meeting minutes to be taken and dispersed within 48 hours of the meeting
- Online project folders containing every project document
- Project timelines to eliminate confusion on design phase progress
- The ability to give the client a digital walk-through at any point in the project
- Mandated Revit drawings by all consulatants and BIM Clash Detection Reports for coordination
- 3D details in drawing sets to ensure the contractor's bid is as accurate as possible
- The use of BlueBeam Software to review, markup, redline, and coordinate with any of the project team anywhere, anytime, in real time
- One main point of contact for every project from concept to completion
- The ability for any design team member to produce every type of document drawings, renderings, and/or digital walk-throughs

> It's an ARCHITECT'S responsibility
> to bring all of the TOOLS to the table

Our team chooses to work EXCLUSIVELY in Revit. The implementation of the latest technology is something that sets our firm apart, especially because we use it for all its advantages. This includes but is not limited to solar studies, interior light studies, and clash detection. Our consultants also model everything digitally in the field. This reduces coordination issues and change orders while giving us the ability to view 3D models on site at job site meetings for COORDINATION with your general contractor. We find that adding 3D drawings to our set of drawings significantly helps the general contractor understand the scope during the bidding and construction process. We experience the world in 3D, why only design it in 2D?

With COMMUNICATION as the foundation, we can maintain PROJECT SCHEDULES, and OWNER BUDGETS. Regardless of size and scope. This involves open lines of communication maintained with both the owner, the team, and the contractor.

> We design spaces that have POSITIVE effects
> on the way an occupant VIEWS and EXPERIENCES space

Having an INTERIOR DESIGN DEPARTMENT allows our team to better cater to our client. With this specialized knowledge integrated within our design team, we can study a client's business drivers and incorporate these findings into a space that promotes wellbeing, enhances the human experience, and in hand creates a space where our client's businesses will flourish.

FURNITURE COORDINATION

Working with a furniture dealer as a direct consultant of the design team brings success for all parties involved. Furnishings are coordinated with the designer/dealer team from the beginning of the project in a design + assist fashion. Concepts are developed based on programmatic, human-centric needs that support and enhance the human experience throughout the space, all while continuously addressing budgetary concerns.

> A fresh perspective on your space
> AND your marketing approach?
> Let's complete the picture.

SEAMLESS INTEGRATION

Consistency is a sign of professionalism. It is paramount to penetrate the noise and grab the audience's attention.

Portraying your message effectively and consistently throughout all marketing collateral, including print and digital media, not only creates brand cohesiveness but engages the viewer. Our in-house team is proud to produce logos, as well as digital & print marketing collateral for our clients. For Crown Car Wash & Oil Change a logo and branding package was designed for the client. and incorporated into digital renderings.

ANIMATIONS + VIDEOGRAPHY

We provide owners with the tools for building excitement, collecting funds, and receiving approval on designs.

We pride ourselves on creating a breadth of digital media in-house for clients. Examples of client work range from an informational video for Stirling Properties, highlighting recent renovations and services offered in Pan-American Life Center's Lobby & 11th floor; to producing a full documentary style sit-down interview for the Boys and Girls Club Covington Unit for awareness and fundraising; to creating an animated hype video introducing a conceptual master plan to Mandeville Bible Church's congregation; to construction progress highlights, logo animations, and beyond!

MARKETING MATERIAL

COMING SOON SIGNAGE

LOGO DESIGN

DIGITAL DESIGN

State of Louisiana

Board of Architectural Examiners

The firm whose name appears on this certificate is in compliance with the provisions of the Louisiana State Board of Architectural Examiners' Licensing Law and Rules and Regulations and is duly registered and entitled to practice architecture in the State of Louisiana.

CERTIFICATE OF AUTHORITY NO. AC0826 *EXPIRES* June 30, 2023

Greenleaf Architects, APAC

President

Secretary

Executive Director

May 3, 2022
Date

$75.00
Fee Paid

(ALL CERTIFICATES BECOME DELINQUENT AFTER EXPIRATION DATE)

State of Louisiana

Board of Architectural Examiners

Registration No. AC0826 *Expires* June 30, 2023

Greenleaf Architects, APAC

The above named is duly registered and entitled to practice Architecture in the state of Louisiana until the indicated expiration date.

Executive Director

TEC Professional Services Questionnaire

A. Project Name and Advertisement Resolution Number:

SOQ 006-Design and Construction Administration of a New East Bank
Jefferson Parish Animal Adoption & Services Facility

B. Firm Name & Address:

Eustis Engineering L.L.C.
3011 28th Street, Metairie, Louisiana 70002

C. Name, title and contact information of Principal, as defined in Section 2-926 of the Jefferson Parish Code of Ordinances, who is a registered, licensed architect, professional engineer, or surveyor in the State of Louisiana:

Gwendolyn P. Sanders, P.E. / President / 504-834-0157 / gsanders@eustiseng.com

D. Name and contact information of employee who is a registered and licensed architect, professional engineer, or surveyor in the State of Louisiana in the applicable discipline. A subcontractor may be substituted here only if the advertised Project requires more than one discipline.

Ben Cody, P.E. / Principal Engineer / 504-834-0157 / bcody@eustiseng.com

E. Please provide the number of employees whose primary function corresponds with each category:

8	Administrative		Estimators		Specification Writers
	Architects (Licensed)	2	Geologists		Structural Engineers
	Chemical Engineers	16	Geotechnical Engineers	1	Graduate Engineers
	Civil Engineers		Interior Designers		Project Managers
	Construction Inspectors		Landscape Architects	6	Clerical
	Ecologists		Land Surveyor		Grant/Funding Specialist
	Electrical Engineers		Mechanical Engineers		Sanitary Engineers
2	Engineer Intern		Environmental Engineers	40	**Other**
	Professional Land Surveyors				
				75	**TOTAL**

F. Is this submittal is a JOINT-VENTURE? Please check: YES ☐ NO ☒

If marked "No," skip to Section I. If marked "Yes," complete Sections G-H.

TEC Professional Services Questionnaire

G. If submittal is by JOINT-VENTURE, list the firms participating and outline specific areas of responsibility (including administrative, technical, and financial) for each firm. Please attach additional pages if necessary.

1. Not applicable.

2.

H Has this JOINT-VENTURE previously worked together: Please check:

YES ☐ **NO** ☐

I. List all subcontractors anticipated for this Project. Please note that all subcontractors must submit a fully completed copy of this questionnaire, applicable licenses, and any other information required by the advertisement. See Jefferson Parish Code of Ordinances, Sec. 2-928(a)(3). Please attach additional pages if necessary.

Name & Address:	Specialty:	Worked with Firm Before (Yes or No):
1. Not Applicable.		
2.		
3.		

J. Please specify the total number of support personnel that may assist in the completion of this Project:

We estimate 16 individuals will be needed to complete the geotechnical services associated with projects under this advertisement. This includes a three-member drill crew as well as laboratory, clerical, and engineering staff. More employees can be added, as necessary, to complete any project.

TEC Professional Services Questionnaire

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Gwendolyn P. Sanders, P.E. / President

Project Assignment:

Project Principal

Name of Firm with which Associated:

Eustis Engineering L.L.C.

Years' Experience with This Firm:

30

Education: Degree(s)/Year/Specialization:

Master of Science / 1992 / Civil Engineering
Bachelor of Science / 1990 / Civil Engineering

Active Registration: Year First Registered/Discipline:

Louisiana: 1997 / Civil Engineering
Mississippi: 2003 / Engineering
Texas: 2020 / Engineering

Other Experience and Qualifications Relevant to the Proposed Project:

Mrs. Sanders began her professional career with Eustis Engineering in 1993. Over the past 30 years, she has worked her way up through the ranks of the engineering department including Associate Engineer, Project Engineer, Project Manager, and Engineering Manager. She has been on Eustis Engineering's Board of Directors since 1997. In 2020, Mrs. Sanders became Eustis Engineering's first woman President after previously serving as a Vice President and Executive Vice President. As President, she is responsible for day-to-day business operations including quality, safety, marketing, and long-term strategic growth. She also still actively participates in the engineering design and review processes.

Considering her experience with Eustis Engineering, a leading Gulf Coast geotechnical firm, Mrs. Sanders has extensive experience in soft soils and working on projects in coastal Louisiana. She has been directly and indirectly involved in numerous projects throughout the Gulf Coast region, particularly in the Greater New Orleans area. Mrs. Sanders has been involved in and managed every aspect of a geotechnical engineering project, namely developing appropriate scopes of work for projects, planning and coordinating the field investigations, assigning laboratory testing, performing geotechnical engineering analyses, preparing detailed reports with engineering analyses and recommendations, reviewing reports prepared by other professionals, coordinating construction phase services, and consulting with clients. Much of her work experience consists of identifying soil properties, developing criteria for design of foundations, and determining an appropriate foundation to support the structure under consideration.

In 2017, Mrs. Sanders served as Program Advisor for the Deep Foundations Institute's 42nd annual conference. She has twice been named one of the 50 Women of the Year by New Orleans CityBusiness, first in 2017 and again in 2021. In 2022, she was recognized as the Outstanding Civil Engineer of the Year by both the New Orleans Branch and Louisiana Section of the American Society of Civil Engineers (ASCE). She is currently serving as an associate member of the ASCE Standards Committee for the Design of Foundations. She has a keen eye for detail and is a stickler for quality. Her work ethic, combined with her communication skills, translate to Mrs. Sanders' ability to deliver successful geotechnical engineering projects to her clients.

K. List the professional in charge, key persons, specialists, and individual consultants anticipated for this Project and provide their relevant information below. If necessary, please attach additional documentation (i.e., resume) that demonstrates the employment history and experience of the Firm's key persons that may assist in the completion of this Project. Please attach additional pages if necessary.

PROFESSIONAL IN CHARGE OF PROJECT:

Name & Title:

Gwendolyn P. Sanders, P.E. / President

Over the years, Mrs. Sanders has been involved with more than 2,800 projects in some capacity, including the following contained within this submittal:

- Jefferson Parish Sheriff's Office – First District Station, 3620 Hessmer Avenue, Metairie, Louisiana
- Jefferson Parish Sheriff's Office – Lafitte Rathburn Tower, Lafitte, Louisiana
- Jefferson Parish – Marrero Wastewater Treatment Plant, Proposed Electrical Building, Marrero, Louisiana
- Jefferson Parish – Fire Station No. 18, Veterans Boulevard Near Causeway Boulevard, Jefferson Parish, Louisiana
- Plaquemines Parish Government – Animal Shelter Repair Evaluation, 479 F. Edward Hebert Boulevard, Belle Chasse, Louisiana
- U.S. Navy – Naval Construction Battalion Center, Military Working Dog Kennel, Gulfport, Mississippi

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Benjamin M. Cody, P.E. / Principal Engineer

Project Assignment:

Project Manager

Name of Firm with which Associated:

Eustis Engineering L.L.C.

Years' Experience with This Firm:

21

Education: Degree(s)/Year/Specialization:

Master of Science / 1999 / Civil Engineering
Bachelor of Science / 1996 / Civil Engineering

Active Registration: Year First Registered/Discipline:

Louisiana: 2002 / Civil Engineering
Mississippi: 2007 / Engineering
Texas: 2014 / Civil Engineering
Florida: 2001 / Engineering
Alabama: 2003 / Engineering
Arkansas: 2014 / Engineering

Other Experience and Qualifications Relevant to the Proposed Project:

From 1993 to 1994, Mr. Cody first worked with Eustis Engineering as a part-time laboratory soil technician while obtaining his undergraduate degree. After leaving Eustis Engineering in 1994, Mr. Cody worked as an engineering technician with the Sewerage & Water Board of New Orleans and as a student laboratory coordinator at Tulane University's Department of Civil Engineering. Mr. Cody also assisted in teaching the introductory soil mechanics laboratory sessions. For more than a year, he then worked as a graduate research assistant at Tulane University while pursuing his master's degree. At that time, he was responsible for the design, construction, and implementation of bench scale testing system in contaminated soil remediation.

From 1998 until 2001, Mr. Cody worked for engineering firms in Florida. He performed such duties as soil evaluation and engineering recommendations for projects of varying sizes including multi-story structures, bridges, and roadways. He performed Phase I environmental site assessments as well as geotechnical sensor installation.

In 2001, he returned to the New Orleans area and to Eustis Engineering as a Project Engineer. He now serves as a Principal Engineer with the firm. Since his return, Mr. Cody has performed a wide variety of engineering services including geotechnical project management, engineering design, engineering during construction, and dynamic pile testing. Private sector projects have varied from small private and commercial structures to multi-story high-rise structures, storage tanks, and other industrial facilities. Public projects have included roads and bridges, port facilities, government buildings and facilities, schools, and hurricane protection system improvements.

Some of Mr. Cody's project experience, shown in this submittal, includes the following:

- Jefferson Parish Public School System – Young Audiences Charter School, 1000 Burmaster Street, Gretna, Louisiana
- Jefferson Parish – West Bank Central Warehouse Facility, LA Highway 18, Bridge City, Louisiana

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:
Name & Title:
Benjamin M. Cody, P.E. / Principal Engineer
• Jefferson Parish School System – Granville T. Woods Elementary School, New Six-Classroom Building, Kenner, Louisiana • Plaquemines Parish Government – Animal Shelter Repair Evaluation, 479 F. Edward Hebert Boulevard, Belle Chasse, Louisiana • New Orleans City Park – Light Poles for Rugby Field, Zachary Taylor Drive at the Dog Park, New Orleans, Louisiana

TEC Professional Services Questionnaire

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)

Project Assignment:

Project Manager

Name of Firm with which Associated:

Eustis Engineering L.L.C.

Years' Experience with This Firm:

10

Education: Degree(s)/Year/Specialization:

Master of Science / 2010 / Civil Engineering
Bachelor of Science / 2007 / Civil Engineering

Active Registration: Year First Registered/Discipline:

Louisiana: 2013 / Civil Engineering

Other Experience and Qualifications Relevant to the Proposed Project:

For his first five years after graduation, Sean G. Walsh, P.E., was a Project Engineer on numerous projects in the New York and New Orleans metropolitan areas where he gained experience in civil, geotechnical, and geo-environmental engineering projects for a variety of public and private clients.

Since joining Eustis Engineering in 2012 as a Project Engineer, Mr. Walsh has been responsible for developing and managing engineering package preparations (e.g., engineering design and analysis, development of construction and permit drawings, contract specifications, cost estimates, and design reporting) for a diverse range of design and analysis projects, including deep foundations, excavation support systems, utility foundations, slope stabilization, solid waste closure systems, levee inspection/safety, and seepage modeling.

Mr. Walsh was promoted to Project Manager in 2017. Mr. Walsh is also a graduate of the 2017 New Orleans Regional Leadership Institute (NORLI), a one-year training program designed to help shape community leaders.

During his employment with Eustis Engineering, Mr. Walsh has provided engineering services on more than 400 projects. Mr. Walsh has risen to the level of Vice President and Engineering Manager, in which he is responsible for personnel resource allocation, the overall engineering schedule, and execution of engineering services. Mr. Walsh also functions as a mentor to the engineering staff.

A large portion of Mr. Walsh's experience, before and after joining Eustis Engineering, involved development of design and construction recommendations associated with flood protection systems in southeastern Louisiana. Mr. Walsh has served as the project engineer and project manager responsible for the development and implementation of geotechnical exploration programs; development of soil testing laboratory programs; and interpretation of the results to evaluate strength, compressibility, and general soil characterization. Mr. Walsh used these data for geotechnical designs comprising pile capacity curves; bearing capacity analyses; cantilever retaining analyses; anchored retaining wall analyses; temporary retaining structure design; time-settlement projections for earthen levees with lift schedules; soil pressure profiles; structural and earthen levee under seepage analyses; levee and bank stability by the Spencer's Method and the Method of Planes; reinforced embankment design; stability analyses of flood protection walls (e.g., T-wall, I-wall, L-wall, and braced 'A-Frame' walls); downdrag and settlement analyses; settlement induced bending moments (SIBM) in foundation piles; piping analyses; uplift analyses; heave analyses; three-dimensional modeling of fill and structural load placements for predictions of time-rate settlements of foundation systems; and numerical

KEY PERSON, SPECIALIST, OR INDIVIDUAL CONSULTANT:

Name & Title:

Sean G. Walsh, P.E. / Engineering Manager and Vice President (Engineering)

modeling of soil-structure-interaction (SSI) of flood protection structures by the finite element method (FEM).

Mr. Walsh has also worked on many local government projects in towns and cities including New Orleans, Golden Meadow, and Kentwood; numerous projects in Jefferson, Orleans, St. Bernard, St. Charles, and Plaquemines Parishes; several Port Commissions (e.g. Baton Rouge, New Orleans, South Louisiana); the Sewerage & Water Board of New Orleans; etc.

Regardless of the types of projects engineered for these agencies, his responsibilities have remained the same, namely defining the project philosophy; developing and maintaining the schedule; providing status reports to clients; controlling expenditures; overseeing project personnel; and reviewing the project design for compliance with engineering principles, company standards, and owner/client requirements. He is hands-on in coordinating activities concerned with technical developments and in resolving engineering design/test problems.

Mr. Walsh's skills over the past nine years have developed exponentially with the variety of projects that have crossed his desk. With regard to this submittal, Mr. Walsh has been directly involved with the following projects:

- Jefferson Parish – Fire Station No. 18, Veterans Boulevard Near Causeway Boulevard, Jefferson Parish, Louisiana
- Plaquemines Parish Government – Animal Shelter Repair Evaluation, 479 F. Edward Hebert Boulevard, Belle Chasse, Louisiana
- New Orleans City Park – Light Poles for Rugby Field, Zachary Taylor Drive at the Dog Park, New Orleans, Louisiana

PROJECT NO. 01	
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**
Jefferson Parish Public School System **Young Audiences Charter School** **1000 Burmaster Street** **Gretna, Louisiana** **Eustis Engineering Project No. 24021** **Owner's Contact Information:** Young Audiences Charter Association 1407 Virgil Street Gretna, Louisiana 70053 Edna R. Moore @ 504-304-6332	At the time of our investigation, the site consisted of an existing one-story masonry warehouse surrounded by concrete and asphalt. That warehouse would be converted in the new school at 1000 Burmaster Street. The existing building had approximate plan dimensions of 700' x 250'. Much of the building would remain in place with partitioning and relocation of interior columns to develop the existing building into facilities needed for the school. The structural engineer for the project planned to use a pile foundation to support appurtenant features outside of the building. Appurtenant features would include transformers and mechanical pads raised 3 feet above grade. The existing parking lot would be utilized for the school, and new pavements would be constructed as necessary. The final parking area would accommodate 90 personal vehicles. Portions of the existing parking lot would be refurbished with a mill and overlay pavement. A new driveway south of the existing building would accommodate large vehicles, including bus traffic. New light-duty and heavy-duty pavements would be required at other areas around the existing building. Our field exploration included the drilling of four 100-ft undisturbed sample type soil test borings from the exterior of the existing building to determine subsoil conditions and stratification, and to obtain samples of the various strata encountered. The borings were supplemented with cone penetration tests (CPTs) to further evaluate the subsurface conditions inside the building. The CPTs extended to depths of 100 feet below the bottom of the concrete slab. Soil mechanics laboratory tests, performed on samples obtained from the borings, were used to evaluate the physical properties of the various substrata. Testing included natural water content, unit weight, unconfined compression shear, and unconsolidated undrained triaxial compression shear. Additional testing included the percent passing the U.S. Standard No. 200 sieve and Atterberg limits determinations to aid in classification and provide an indication of each material's relative compressibility. In conjunction with the soil borings, CPTs, and laboratory test results, engineering analyses were made to determine recommendations for: • water management during and after construction; • site preparation on the interior of the building; • inspection and monitoring of the existing building; • site preparation for the existing building's exterior;

PROJECT NO. 01		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
	• Seismic Site Classification in accordance with the International Building Code; • allowable vertical load capacities, in compression and tension, for various sizes and embedments of treated ASTM D25 quality timber, timber composite, single-piece and segmented open-end steel pipe, and augercast concrete piles; • pile installation recommendations; • both flexible and rigid pavements; and • general foundation construction procedures.	
Completion Date (Actual or Estimated)	**Estimated Cost:**	
	Entire Project:	**Work for Which Firm Was Responsible:**
02/2019 (A)	Unknown	$17,600

PROJECT NO. 02	
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**
Jefferson Parish **West Bank Central Warehouse Facility** **LA Highway 18** **Bridge City, Louisiana** **Eustis Engineering Project Nos. 22720.00, .01** Jefferson Parish Through ECM Consultants, Inc. Suite 200 4409 Utica Street Metairie, Louisiana 70006 Chris Maniscalco @ 504-885-4080	As part of our geotechnical exploration, Eustis Engineering provided foundation analyses and recommendations for the proposed West Bank Central Warehouse Facility to be located north of LA Highway 18 in Bridge City, Louisiana. The project was to consist of two major structures: a warehouse and a poles/fixtures building, along with 21 parking spaces. The warehouse would have plan dimensions of 168' x 216'. The poles/fixtures building would have approximate plan dimensions of 50' x 110'. Approximately 3 feet of structural fill was anticipated to raise the site's grade to construction levels beneath the proposed structures. As an alternative to the structural fill, expanded polystyrene foam (EPS) blocks were being considered to raise the grade of the building footprints. Other project components included a new fenced laydown yard, parking areas and driveways, a loading dock on the northeastern corner of the warehouse, and underground drainage pipes (a maximum of 24 inches in diameter with an estimated maximum bearing depth of 4 feet). At the time of our field activities, the site was observed to be a generally level, open lot with an existing fence, fuel storage tanks, a fueling island, and minimal vegetation. Eustis Engineering drilled three undisturbed sample type soil test borings to depths of 60 to 100 feet and two auger borings to depths of 10 feet. Subsoil samples were obtained in the field using a 3-in. diameter thinwall Shelby tube sampling barrel. The samples were then tested in our laboratory to evaluate subsurface conditions and stratifications. Soil mechanics laboratory tests consisted of natural water content, unit weight, unconfined compression shear, and Atterberg liquid and plastic limits tests. Our engineering analyses and recommendations included: • site preparation recommendations addressing the need for adequate drainage during and after construction; • appropriate clearing and stripping operations complying with Louisiana Standard Specifications; • subgrade preparation; • recommended structural fill and its compaction; • estimated fill settlement; • areal subsidence; • excavation bracing requirements in accordance with OSHA; • lateral earth pressure on buried structures and at the truck wells associated with the loading dock; • recommendations for the installation of new 6-in. to 24-in. diameter sewer and drain lines including bedding materials, the use of geotextile separation fabric, and backfill materials;

<table>
<tr><th colspan="3">PROJECT NO. 02</th></tr>
<tr><th>Project Name, Location, and Owner's Contact Information:</th><th colspan="2">Nature of Firm's Responsibility:</th></tr>
<tr><td></td><td colspan="2">• allowable load capacities, in compression and tension, for various sizes of treated timber piles, timber composite piles, and square, precast concrete piles;
• estimated settlement due to structural loads;
• estimated settlement of piles due to fill placement;
• recommendations for flexible and rigid pavements; and
• recommended truck well designs and construction at the loading dock.

As the geotechnical engineer of record, we provided recommendations in response to the contractor's RFI regarding the test pile program. Our recommendations centered on the reaction piles and prepunching/predrilling operations. We also reviewed the test pile program for the consulting engineer on the project providing our conclusions and professional opinions regarding the results.</td></tr>
<tr><th rowspan="2">Completion Date (Actual or Estimated)</th><th colspan="2">Estimated Cost:</th></tr>
<tr><th>Entire Project:</th><th>Work for Which Firm Was Responsible:</th></tr>
<tr><td>05/2015 (A)</td><td>Unknown</td><td>$11,500</td></tr>
</table>

<table>
<tr><th colspan="3">PROJECT NO. 03</th></tr>
<tr><th>Project Name, Location, and Owner's Contact Information:</th><th colspan="2">Nature of Firm's Responsibility:</th></tr>
<tr><td>Jefferson Parish School System
Granville T. Woods Elementary School
New Six-Classroom Building
1037 31st Street
Kenner, Louisiana
JPPS Work Order No. CC-1212
Eustis Engineering Project No. 23488

Contact Information:
Jefferson Parish Public School System
4600 River Road
Marrero, Louisiana 70072
Scott Adams @ 504-349-7600</td><td colspan="2">Eustis Engineering was solicited to complete the geotechnical explorations at Granville T. Woods Elementary School for a new six-classroom building for the Jefferson Parish Public School System. The building was planned as a single-story structure with a footprint of approximately 8,950 square feet.

The exploration included the drilling of one undisturbed sample type soil test boring and two auger sample type soil test borings to determine subsoil conditions and stratification, and to obtain samples of the various strata encountered.

One undisturbed boring was drilled to a depth of 75 feet below the existing ground surface in an area of the proposed building addition. Two auger borings were each drilled to a depth of 10 feet below the existing ground surface in the proposed pavement areas. All three borings were made using a truck-mounted rotary-type drill rig.

Soil mechanics laboratory tests were performed in our accredited laboratory on samples obtained from the borings. The test results were used to evaluate the physical properties of the various substrata and as the basis of selected soil design parameters. These tests consisted of visual classification, natural water content, unit weight, unconfined compression shear, and unconsolidated undrained triaxial compression shear.

Engineering analyses, based on the soil borings and laboratory test results, were made by our design team to determine recommendations regarding site preparation, estimates of allowable pile load capacities, estimates of settlement, and general foundation construction procedures.</td></tr>
<tr><th rowspan="2">Completion Date (Actual or Estimated)</th><th colspan="2">Estimated Cost:</th></tr>
<tr><th>Entire Project:</th><th>Work for Which Firm Was Responsible:</th></tr>
<tr><td>03/2017 (A)</td><td>Unknown</td><td>$5,350</td></tr>
</table>

PROJECT NO. 04		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Jefferson Parish Sheriff's Office **First District Station** **3620 Hessmer Avenue** **Metairie, Louisiana** **Eustis Engineering Project No. 23114** **Owner's Contact Information:** Jefferson Parish Sheriff's Office Through N-Y Associates, Inc. 2750 Lake Villa Drive, Suite 100 Metairie, Louisiana 70002 Jonathan O'Rear, AIA RCARB, LEED @ 504-885-0500	The Jefferson Parish Sheriff's Office (JPSO) planned to build a new station on Hessmer Avenue in Metairie, Louisiana. The station would be approximately 7,000 square feet of main floor space which would include an entrance lobby, retail space, and storage space. The second floor would also be approximately 7,000 square feet in plan size. This would serve as the JPSO's First District office. The main floor and pavements would be constructed between existing grade up to an elevation of 4 feet. Based on our knowledge of the project details and the subsoils in the area, Eustis Engineering drilled one soil boring to a depth of 100 feet below the existing ground surface. The boring depth was required to identify the surface of the Pleistocene formation and to evaluate settlement and downdrag due to the placement of 4 feet of fill. Eustis Engineering also drilled five auger borings to depths of 10 feet for the pavement areas. After completing the field investigation, our laboratory personnel performed a variety of soil mechanics laboratory tests including natural water content, unit weight, unconfined compression shear, and unconsolidated undrained triaxial compression shear. These tests were used to classify the soils, determine their shear strength, and determine their relative compressibility. Our engineering staff performed engineering analyses for the project. These analyses included: • recommendations for site preparation; • recommendations for placement and compaction of fill; • estimates of allowable pile load capacities; • effects of downdrag on piles due to the placement of 4 feet of fill; • estimates of settlement; • components and thicknesses for rigid and flexible pavements; and • general foundation construction procedures. In 2017, Eustis Engineering provided supplemental design services associated with a preload/surcharge program being considered to reduce post-construction settlements on the site paving and pile foundations. In 2018, Eustis Engineering was engaged during the construction phase to assist with responding to contractor RFIs regarding pile installation difficulties and conflicts identified during pile driving operations. As a result of the RFIs, our geotechnical engineer of record was also engaged to review pile driving records and the results of a test pile program. Additional pile testing was conducted and observed to provide modifications to the installation criteria, reduce pile damage, and address the existing pile conflicts while still meeting the design requirements.	
Completion Date (Actual or Estimated)	**Estimated Cost:**	
	Entire Project:	**Work for Which Firm Was Responsible:**
05/2018 (A)	Unknown	$11,400

PROJECT NO. 05		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Jefferson Parish Sheriff's Office **Lafitte Rathburn Tower** **Lafitte, Louisiana** **Eustis Engineering Project No. L0415** Jefferson Parish Sheriff's Office Through M S Benbow and Associates Professional Engineering Corporation Suite 400 2450 Severn Avenue Metairie, Louisiana 70001 Pete Bastien @ 504-836-8925	A communications tower and associated guyed wire supports were to be constructed for the Jefferson Parish Sheriff's Office. Steel H-piles were proposed for support of the tower and guyed wires. The specific tower dimensions and anticipated loads were not available for the exploration. The site was located approximately 2,000 feet east of the intersection of LA Highway 3257 and Forges Street in Lafitte, Louisiana. The tower location was in a generally level lot with existing vegetation and a limestone driveway. Extensive standing water was observed at the site during our drilling operations. One soil boring was made at the site to a depth of 125 with an all-terrain mounted, rotary-type drill rig. This was to evaluate subsoil conditions and stratification, and to obtain samples of the various substrata. The soil samples were transported to our accredited laboratory in Metairie for testing. The design team assigned soil mechanics laboratory tests to evaluate the physical properties of the subsoils. The tests performed included natural water content, unit weight, and either unconfined compression shear or unconsolidated undrained triaxial compression shear. In addition, Atterberg liquid and plastic limits tests were performed on selected representative samples to aid in classification and assess relative compressibility. The design team used these test results to develop the site-specific soil design parameters. Engineering analyses were made by the design team to provide recommendations regarding site preparation and general construction requirements. Their design report also included estimates of allowable vertical load capacities for steel H-piles and, settlement of these piles due to structural loads.	
Completion Date (Actual or Estimated)	**Estimated Cost:**	
	Entire Project:	**Work for Which Firm Was Responsible:**
06/2015 (A)	Unknown	$8,600

<table>
<tr><th colspan="3">PROJECT NO. 06</th></tr>
<tr><th>Project Name, Location, and Owner's Contact Information:</th><th colspan="2">Nature of Firm's Responsibility:</th></tr>
<tr><td>Jefferson Parish
Marrero Wastewater Treatment Plant
Proposed Electrical Building
Marrero, Louisiana
Eustis Engineering Project No. 22525

Contact Information:
Jefferson Parish Through
Hartman Engineering, Inc.
Suite 300
527 West Esplanade Avenue
Kenner, Louisiana 70065
Ryan Foster, P.E. @ 504-466-5667</td><td colspan="2">Over the years, as far back as 1987, Eustis Engineering has performed both geotechnical and construction materials testing services at the Marrero Wastewater Treatment Plant. Work at the site by our firm has been for effluent force mains and various expansion projects.

When Eustis Engineering Eustis Engineering was contracted to perform analyses for a proposed electrical building at this same plant, we knew we would be able to use data developed for these previous studies. From the start of the project, information furnished by the project's engineer indicated the new addition would be supported on deep foundations consisting of timber piles.

Our engineering analyses were used to develop recommendations regarding:

• site preparation including drainage, clearing and stripping, demolition, and placement and compaction of structural fill;
• estimates of allowable pile load capacities, in compression and tension, for treated ASTM D 25 timber piles;
• estimated settlement due to structural loads; and
• installation of driven piles including quality control, hammers, predrilling, and alternate methods.</td></tr>
<tr><th rowspan="2">Completion Date (Actual or Estimated)</th><th colspan="2">Estimated Cost:</th></tr>
<tr><th>Entire Project:</th><th>Work for Which Firm Was Responsible:</th></tr>
<tr><td>05/2014 (A)</td><td>Unknown</td><td>$750</td></tr>
</table>

PROJECT NO. 07		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Jefferson Parish **Fire Station No. 18** **Veterans Boulevard** **Near Causeway Boulevard** **Jefferson Parish, Louisiana** **Eustis Engineering Project No. 22395** **Owner's Contact Information:** Jefferson Parish Through N-Y Associates, Inc. 2750 Lake Villa Drive Metairie, Louisiana 70002 Jonathan O'Rear @ 504-885-0500	Eustis Engineering performed a geotechnical exploration for the proposed fire station to be located near the intersection of Veterans Memorial Boulevard and Causeway Boulevard in Jefferson Parish, Louisiana. The proposed single-story fire station would comprise 10,000 to 12,000 square feet of living space and workspace with two truck bays and living quarters. A raised generator platform would be located at the southwestern corner of the lot. Fourteen parking spaces would surround the proposed building. Eustis Engineering drilled two undisturbed sample type soil test borings to depths of 80 feet below the existing ground surface to determine subsoil conditions and stratification and to obtain samples of the various strata encountered. We selected the number and depth of borings based on our knowledge of the local geology and on the proposed building dimensions. The borings were drilled with a truck-mounted rotary-type drill rig dispatched from our main office in Metairie near the project site. Upon completion of drilling operations, the undisturbed borings were grouted with cement-bentonite grout mix in accordance with current regulatory requirements. Soil mechanics laboratory tests were performed on samples obtained from the borings in our certified laboratory in Metairie. The test results were used by our engineering team to evaluate the physical properties of the various substrata and select the soil design parameters. The lab tests consisted of visual classification, natural water content, unit weight, unconsolidated undrained triaxial compression shear, and unconfined compression shear. Grain size analyses were also performed to determine the particle size distribution of selected cohesionless samples. These index and shear tests aid in defining the stress history, geology, and design properties of the subsoils encountered. Engineering analyses were made to estimate allowable pile load capacities, pavement recommendations, settlement, and to determine a site classification in accordance with the 2009 International Building Code. Eustis Engineering also provided recommendations for site preparation and general foundation construction procedures.	
Completion Date (Actual or Estimated)	**Estimated Cost:**	
	Entire Project:	**Work for Which Firm Was Responsible:**
05/2014 (A)	Unknown	$6,200

PROJECT NO. 08		
Project Name, Location, and Owner's Contact Information:	**Nature of Firm's Responsibility:**	
Plaquemines Parish Government **Animal Shelter Repair Evaluation** **479 F. Edward Hebert Boulevard** **Belle Chasse, Louisiana** **Eustis Engineering Project Nos. 23571.00-.02** **Contact Information:** Deutsch Kerrigan, L.L.P. 755 Magazine Street New Orleans, Louisiana 70130 Kelly E. Theard @ 504-593-0667	The Plaquemines Animal Welfare Society (PAWS) structure in Belle Chasse Louisiana was built in 2010 and experienced differential settlement resulting in distress since its construction. Eustis Engineering conducted a forensic subsurface exploration at the project site in 2017 comprising one soil boring drilled to the 125-ft depth and two cone penetration tests (CPTs) also to 125-ft depths below the existing ground surface. The boring, CPTs, and laboratory tests from Eustis Engineering's exploration and the furnished exploration data developed by Ardaman & Associates, Inc. for the original construction were used along with furnished construction documents and forensic reports to evaluate the present amount of settlement and to estimate how much settlement could potentially still occur. General recommendations were then developed for possible remedial foundation repairs for the structure. In 2020, additional data collected by Newell Engineering became available for review. This new information required Eustis Engineering review the previous analyses relative to the latest data and provide additional consulting services as required. These recommendations were compiled into "working copy" presentation graphics used for discussion alongside the remediation design team. A final scope of service for Eustis Engineering was determined in 2021. Deutsch Kerrigan requested our updated analyses and the modified recommendations be incorporated into a formal, updated geotechnical report. In addition, Eustis Engineering agreed to provide ongoing consultation services to refine recommendations for remediation measures with the remediation design team and to present those findings to the project owner. We also agreed to provide additional consultation and expert opinions if other export reports were furnished for review.	
Completion Date (Actual or Estimated)	**Estimated Cost:**	
	Entire Project:	**Work for Which Firm Was Responsible:**
05/2022 (A)	Unknown	$113,500

<table>
<tr><th colspan="3">PROJECT NO. 09</th></tr>
<tr><th>Project Name, Location, and Owner's Contact Information:</th><th colspan="2">Nature of Firm's Responsibility:</th></tr>
<tr><td>U.S. Navy
Naval Construction Battalion Center
Military Working Dog Kennel
Gulfport, Mississippi
Eustis Engineering Project No. G0299

Contact Information:
U.S. Navy Through
Drace Construction Corporation
Post Office Box 1797
Gulfport, Mississippi 39502
Jason Fayard @ 228-596-5252</td><td colspan="2">The proposed kennel would be a single-story structure set on a slab-on-grade. The kennel had a total plan area of approximately 1,710 square feet comprised of approximately 1,232 square feet of enclosed space and 478 square feet of outside runs. At the time of investigation, it was estimated up to 2 feet of fill would be required to reach finished grade.

Our field investigation included the advancement of two soil borings to depths of 15 feet below the existing ground surface at the eastern and western corners of the proposed kennel. A third boring extended to a depth of 30 feet below the existing ground surface at the center of the proposed kennel. GPS coordinates were obtained at the boring locations using a handheld device.

Once in our laboratory, samples collected in the field were subjected to soil mechanics laboratory tests including natural water content and Atterberg limits determinations. Percent passing the U.S. Standard No. 200 mesh sieve tests were performed on selected cohesionless and semi-cohesive subsoils to aid in classification. Grain size analyses were also performed on selected samples of cohesionless subsoils to determine their particle distribution.

Our engineering staff summarized the findings of our field and laboratory programs, then presented these results in our geotechnical report. The report included:

• a seismic Site Classification in general accordance with the 2012 International Building Code;
• site preparation recommendations including removal of existing pavements and structures, as well as drainage recommendations both during and after construction;
• subgrade preparation encompassing recommended structural fills and their compaction; and
• allowable soil bearing values for continuous strip footing foundations and isolated square footing foundations as well as settlement estimates.</td></tr>
<tr><th rowspan="2">Completion Date (Actual or Estimated)</th><th colspan="2">Estimated Cost:</th></tr>
<tr><th>Entire Project:</th><th>Work for Which Firm Was Responsible:</th></tr>
<tr><td>12/2015 (A)</td><td>Unknown</td><td>$4,400</td></tr>
</table>

<table>
<tr><th colspan="3">PROJECT NO. 10</th></tr>
<tr><th>Project Name, Location, and Owner's Contact Information:</th><th colspan="2">Nature of Firm's Responsibility:</th></tr>
<tr><td>New Orleans City Park
Light Poles for Rugby Field
Zachary Taylor Drive at the Dog Park
New Orleans, Louisiana
Eustis Engineering Project Nos. 23900.00, .01

Contact Information:
New Orleans City Park
1 Palm Drive
New Orleans, Louisiana 70124
Robert DeViney @ 504-482-4888</td><td colspan="2">Four prestressed concrete light poles were planned to be installed at the rugby field in New Orleans City Park. Eustis Engineering previously performed three geotechnical explorations nearby the project site. These previous explorations included one boring at the Tennis Center, two borings at the Dog Park, and two borings at the Henry Thomas Drive Underpass. The five borings showed a variation in depth and density of the underlying beach ridge sand deposits.

Based on our review of the local variations in soil conditions, Eustis Engineering drilled two undisturbed sample type soil test borings to define subsoil conditions and stratification at the boring location sites and to obtain samples of the various strata encountered. Soil mechanics laboratory tests were conducted and engineering analyses were performed to develop estimates of ultimate pile load capacity for direct embedment poles, recommendations for factors of safety and load tests, and installation recommendations for casings, poles, and backfill.

Eustis Engineering was then asked to perform supplemental geotechnical services including:

• a discussion of pile-head fixity;
• lateral load analyses of a 21-in. diameter embedded pole assuming free-head fixity;
• estimates of shear force and bending moment within the pole foundation when subjected to the furnished loading criteria; and
• output reports in a .TXT format, including our design assumptions.</td></tr>
<tr><th rowspan="2">Completion Date
(Actual or Estimated)</th><th colspan="2">Estimated Cost:</th></tr>
<tr><th>Entire Project:</th><th>Work for Which Firm Was Responsible:</th></tr>
<tr><td>08/2018</td><td>Unknown</td><td>$5,750</td></tr>
</table>

TEC Professional Services Questionnaire

M. List all prior and/or on-going litigation between Firm and Jefferson Parish. Please attach additional pages if necessary.

Parties:		Status/Result of Case:
Plaintiff:	**Defendant:**	
1. None at this time.		
2.		
3.		
4.		

N. Use this space to provide any additional information or description of resources supporting Firm's qualifications for the proposed project.

When Eustis Engineering opened its first office in Vicksburg, Mississippi, in 1946, it housed its entire operation in less than 500 square feet of space. ***Seventy-seven years later,*** our personnel and equipment occupy 40,000+ square feet of space in five locations.

Eustis Engineering is the third oldest, continually operating geotechnical firm in the United States. From a single two-man office to approximately 115 individuals in five offices, the firm has grown to house accounting, administrative, quality control, safety, drilling, engineering, laboratory, and construction materials testing departments. These departments work together to provide our clients with the quality work desired in a cost efficient and timely manner.

Eustis Engineering is headquartered in Metairie, Louisiana, with branch offices in Baton Rouge and Lafayette. We also operate branch offices in Gulfport, Mississippi and Houston, Texas. Our offices and staff collaborate seamlessly using Microsoft Teams and other virtual platforms.

Eustis Engineering's services encompass many disciplines including the performance of:

- subsurface exploration (drilling of soil borings, cone penetration testing, downhole vane, and Geoprobe®);
- soil mechanics laboratory tests;
- field instrumentation and monitoring;
- non-destructive testing of piles and shafts including dynamic pile testing, crosshole sonic logging, single-hole sonic logging, low strain pile integrity testing, and thermal integrity profiling;
- geotechnical engineering design; and
- construction quality control and materials testing services.

Eustis Engineering L.L.C. Important Numbers	
Item	**Number**
Unique Entity Identifier (UEI)	R83MG9NLTMS4
CAGE Code	4MOP2
Firm License - Louisiana	EF.0003558
Firm License - Mississippi	2078
Firm Registration – Texas	13895

Eustis Engineering has worked on over 28,000 projects since its inception. This work history gives our engineering staff unparalleled familiarity with the foundation conditions in the Gulf Coast. ***Included in this experience is over 800 projects performed for the Jefferson Parish Government and over 2,650 projects within Jefferson Parish for other owners/clients on both the east and west banks of the parish.***

ENGINEERING SERVICES

Eustis Engineering has engineering capabilities to fulfill the requirements of nearly any project, including development of new sites and retrofits of existing sites. We have developed pile capacity and bearing capacity analyses for projects throughout the coastal areas of the United States. Eustis Engineering's evaluation of piles includes estimates of vertical capacity for groups. We also perform lateral analyses of individual piles and pile groups using LPILE® and GROUP® software.

We perform settlement studies including estimates of settlement and time-rate of settlement with and without wick drains to enhance consolidation. These settlement studies include estimates and recommendations for lift construction affecting a gain-in-strength of foundation soils associated with subsoil consolidation. Preload/surcharge operations are also a component of our settlement evaluations.

In our practice, Eustis Engineering has developed methodologies associated with the estimates of negative skin friction on pile foundations. The methods are the current state of practice. The extension of these methods is an evaluation of settlement induced bending moment (SIBM). Eustis Engineering is also utilizing a numerical model program, SIGMA/W, in association with the rigorous settlement program Settle3.

Engineering Staffing

Our engineering staff has 16 master's degrees in Civil Engineering, Engineering, Engineering Management, Geology, and Business Administration. Participation in post Bachelor of Science curricula, as well as continuing education and professional registration that emphasizes engineering management and technical issues, is very important to Eustis Engineering. Our engineers also regularly present at technical conferences. We encourage and fund our staff for these activities and programs.

Employee	Education	Experience	
		Years with Eustis Engineering	Total Years
Professional Engineers (P.E.)			
Benjamin M. Cody	M.S. / Civil Engineering	21	25
Brian A. Deschamp	B.S. / Civil & Environmental Engineering	11	11
	B.A. / Business Administration		
Lars A. Erickson	B.S. / Civil & Environmental Engineering	7	7
	Coastal Engineering Certificate		
James J. Hance	M.S. / Civil Engineering	19	23
	M.B.A. / Business Administration		
Chad L. Held	M.S. / Civil Engineering	32	32
Matthew K. Morales	B.S. / Civil Engineering	14	14
Tomas K. Morales	B.S. / Civil Engineering	9	9

Travis R. Richards	M.S. / Engineering M.S. / Engineering Management Coastal Engineering Certificate	17	24
Gwendolyn P. Sanders	M.S. / Engineering	30	30
Sanjay S. Shahji	M.S. / Civil Engineering	0.5	17
Shaun R. Simon	M.S. / Civil Engineering	23	23
Patrick A. Thurmond	M.S. Engineering Management M.S. / Civil Engineering Coastal Engineering Certificate	7	7
Sean G. Walsh	M.S. / Civil Engineering	10	15
James M. Williams	M.S. / Civil Engineering	5	5
Henry C. Worley	M.S. / Engineering Coastal Engineering Certificate	5	6.5
Engineering Interns (E.I.)			
Joseph P. DiGiovanni	B.S. / Civil Engineering	0	0
Patrick T. Duckworth	M.S. / Civil Engineering	2	2
Engineering Graduates			
Alvaro E. Carvajal	B.S. / Civil Engineering	.5	.5
Lesley L. Reitmeyer	B.S. / Civil Engineering	14	14
Geologists			
Matthew J. Blasini, G.I.T.	B.S. / Geology	4	5
Andrew A. Herr	B.S. / Geology	0	1
Nathan A. Quick, P.G.	M.S. / Geology	1.5	6.5
Total Years of Experience		**233.5**	**278.5**

Reviewing our table, the majority of Eustis Engineering's professional engineers have at least ten years of experience in geotechnical engineering.

Cone Penetration Testing Capabilities

Eustis Engineering owns two dedicated track-mounted Cone Penetration Testing (CPT) rigs and operates four other multi-purpose rigs capable of performing CPTs. Operators are either specifically trained engineering technicians or engineers who perform field operations utilizing the CPT equipment. Engineers with specialized knowledge and experience operating the rigs evaluate the sounds and produce the CPT logs. Five of our rigs can be placed on a cargo buggy, shallow draft barge, or airboat to access coastal marsh or open water. We have sounded to depths of 180 feet and have the ability to perform dissipation and seismic testing. Field testing is performed according to ASTM D5778 and common industry practices. Eustis Engineering has been performing CPTs and using CPT technology since the early 2000s.

A CPT can be accomplished rapidly with four or five being performed in the same time frame as a standard geotechnical boring; therefore, CPTs are typically cost-effective in providing enhanced subsurface exploration and better delineation of subsurface conditions at a project site.

Dynamic Pile Testing Capabilities

Eustis Engineering was the first private consulting firm to own and operate dynamic pile testing equipment in the States of Louisiana and Mississippi. The pile types tested include timber piles; small size pipe piles; square, precast concrete piles and large (60 to 72-in. diameter) spun-cast, prestressed concrete piles; open-end and closed-end steel pipe piles; and steel H-piles.

We often upgrade our data collectors and operate four Pile Driving Analyzers® (PDAs): one PAX unit and three PDA-8G units. These units can be battery operated and use wireless gauge transmitters to eliminate the need for a main cable to connect directly to the units. We also stock and use underwater gauges to monitor pile driving in marine environments when the pile head descends below the water surface.

To support our four PDA units, Eustis Engineering maintains an extensive inventory of calibrated gauges and accessories. To provide quality assurance and rapid responses to issues in the field, all PDAs have wireless communication, enabling our engineers direct oversight of the dynamic pile testing process in real time.

We also use this PDA equipment to maintain the calibrations of our automatic SPT hammers on our drill rigs.

Other Non-Destructive Testing Capabilities

Our engineering staff at Eustis Engineering performs other non-destructive testing services to verify the structural integrity of drilled shafts, augercast piles, and precast concrete piles. Some of these processes include crosshole/single-hole sonic logging (CSL or SSL), low strain pile integrity testing (PIT), and thermal integrity profiling (TIP™). We also perform parallel seismic testing to evaluate existing foundation depths.

INSTRUMENTATION

Eustis Engineering has installed geotechnical instrumentation for decades. Our instrumentation programs have resulted in substantial cost savings to our clients by reducing preload durations, providing refinement of geotechnical design parameters through full-scale testing, and verifying the performance of cutting-edge designs. Our services go beyond the construction phase, as long-term monitoring programs enable owners to maximize utilization of their facilities throughout the design life by verifying soil behavior is within acceptable limits.

Eustis Engineering provides the following instrumentation services.

- Vibrating wire devices including piezometers, extensometers, settlement gauges, and strain gauges
- Data loggers to enable periodic collection of data for vibrating wire devices
- Data links for remote web access to loggers in near real time
- Settlement plates
- Conventional slope inclinometers or MEM sensor array inclinometers
- Monitoring services of all instrumentation devices with geotechnical interpretation

Instrumentation is a natural complement to our design services, providing data to verify or modify recommendations based on the observational method. Ongoing monitoring enables us to provide continuing services from project inception to the end of a project's design life.

DRILLING/FIELD EXPLORATION

Eustis Engineering possesses licenses and credentials to perform geotechnical drilling in Louisiana and Mississippi (no license is needed in Texas). With our licenses and credentials, Eustis Engineering drills soil borings and performs sampling operations for our clients' projects in all types of environments including land, marsh, swamp, and marine. Our personnel have the capability and experience to provide these services from trucks, barges, pontoons, and swamp or marsh buggies. We also have portable units that can be used inside structures planned for retrofit/renovations.

Field Exploration Personnel

We can provide up to eight drillers and drill rigs capable of obtaining standard 3-in. diameter Shelby tube samples and 5-in. diameter fixed piston samples, sounding CPT, advancing Geoprobe samplers, and installing geotechnical instrumentation on land, in water, and in marsh environments as indicated in the following table.

Capabilities of Eustis Engineering's Field Exploration Staff	Scott Bombard	James Cordes	Rene Davidson	Eric Held	James Lubben	George Reitmeyer	Lawrence Rome	Michael Whipkey
Hand Auger Borings	X	X	X	X	X	X	X	X
General Type (3-in. Diameter Borings)	X	X	X	X	X		X	X
General Type (3-in. Diameter Borings) in Hard Access Locations (Marsh, Swamp, Heavily Forested)	X	X	X	X	X		X	
Undisturbed Type (5-in. Diameter Borings)	X	X	X	X	X		X	X
Undisturbed Type (5-in. Diameter Borings) in Hard Access Locations (Marsh, Swamp, Heavily Forested)		X	X	X	X		X	
Location Information (Latitude, Longitude)		X	X	X	X		X	X
Set Permanent Benchmarks		X	X	X	X		X	
Install Instrumentation		X	X	X	X		X	
Cone Penetration Tests				X		X		
Geoprobe Sampling	X	X		X	X		X	X

Field Exploration Equipment

Eustis Engineering owns and operates six wet rotary drill rigs, both truck-mounted and skid-mounted. This equipment includes one Diedrich truck-mounted D-50 turbo drill rig (with an automatic SPT hammer); one Failing skid only rig (with an automatic SPT hammer); one truck-mounted CME-55 rig; one track-mounted CME-850X rig with an automatic hammer; one track-mounted CME-850XR rig with an automatic hammer; and one truck-mounted CME-55 rig with a detachable CME-55 skid unit and automatic hammer. We also own two track-mounted cone penetrometer systems capable of providing up to 15 tons of reaction. Our CME track rigs provide low ground pressure and are designed to traverse soft ground surfaces, steep slopes, and lightly wooded areas.

Eustis Engineering also owns four direct push Geoprobe units: two 3230DTs, the 6620DT, and the 540M. Eustis Engineering's 6620DT/3230DT Geoprobe with their 12-in. tracks allow this equipment to be used on pavement as well as off road and in rugged terrain. The 6620DT and 3230DT rigs also can be placed on specialized equipment. This includes a jack-up barge and a cargo buggy for operations over marsh/water. These units can install shallow monitoring wells and other instrumentation. We also have the capability to perform CPTs and downhole vanes using the 3230DT rigs.

Our 540M Geoprobe can fit into confined spaces as narrow as 32 inches. The 540M can also be utilized on an airboat for coastal terrains.

Other Specialized Soil Sampling Equipment

In addition to our drill rigs, Eustis Engineering owns and operates a vibracore that can be attached to small equipment to access remote locations. We also have hand augers to obtain samples at various depths for use in classification and stratification of soil deposits. This equipment can be used in association with handheld piston samplers to obtain small diameter samples. Finally, we operate a dynamic cone penetrometer (DCPT) to assess the in-situ strength of undisturbed soils and compacted materials in accordance with ASTM D 6951.

Drone Capabilities

Eustis Engineering utilizes small Unmanned Aerial Systems (sUAS), more commonly known as "drones," to enhance our services. We use drones to perform site inspections, field reconnaissance, pre/post-construction condition surveys, construction inspections, and other forms of visual monitoring. We currently operate a DJI Mavic Air 2S Drone piloted by a Part 107 Certified Remote Pilot.

LABORATORY SERVICES

Eustis Engineering's laboratories are constantly evolving with the purchase of new equipment on a yearly basis. Our gINT® data management software from Bentley allows for maximum efficiency in the production of boring logs and data entry.

Eustis Engineering has also acquired OpenGround®, Bentley's Cloud platform, which interfaces with a collection of geotechnical applications. OpenGround provides a comprehensive solution for collecting, reporting, managing, visualizing, analyzing, and accessing data. Its advanced digital workflows combine both subsurface and surface data into one cohesive design. This software provides Eustis Engineering's team members access to a data source via connected applications or a web portal, increasing collaboration and

efficiency. The improved access and reliability will save time and money in the planning, design, analysis, construction, and operation of infrastructure projects.

Eustis Engineering has also acquired KeyLAB® from Bentley. KeyLAB is the leading laboratory management system built specifically for geotechnical and construction materials testing laboratories. It improves our laboratory efficiency at every stage of the geotechnical and construction testing process, including sample and storeroom management, as well as electronic scheduling, testing, and reporting. It integrates with Microsoft Excel® allowing for the efficient development of customized worksheets and reports.

Technical testing common to our laboratories includes ASTM, ACI, LaDOTD, AASHTO, FAA, and USACE. Our laboratories hold accreditations from AASHTO, LaDOTD, and the USACE.

Laboratory Staffing

Eustis Engineering currently has qualified technicians to sample construction materials and perform soil mechanics laboratory testing. These technicians are versed in the latest standards from ASTM, LaDOTD, MDOT, AASHTO, FAA, and the USACE. Many of our technicians have earned certifications with the National Institute for Certification in Engineering Technologies (NICET) in the area of geotechnical engineering technology and in the subfields of construction, exploration, generalist, and laboratory.

Laboratory Quality Control

In our effort to ensure the quality of our laboratory and materials testing, our programs are regularly inspected by outside agencies such as the U.S. Army Corps of Engineers, the AMRL Group of the American Association of State Highway and Transportation Officials, and the CCRL Group of AASHTO. Eustis Engineering is also accredited by the Mississippi Department of Transportation.

Eustis Engineering has three soil mechanics laboratories where our laboratory practices and quality management system meet the requirements of AASHTO R 18 and ASTM E329. These offices are located in Metairie, Baton Rouge, and Gulfport. Individual offices may comply with ASTM quality system specifications including ASTM C1077, ASTM D366, and ASTM D3740. Accreditations in the various areas are shown below.

Metairie	Baton Rouge	Gulfport
Aggregate	Aggregate	Aggregate
Asphalt	Soil	Asphalt
Concrete	Concrete	Concrete
Masonry	Masonry	Soil
Soil	Spray Fire-Resistive Material	Spray Fire-Resistive Material

Our laboratory in Houston, Texas, has capabilities in the areas of Aggregate, Concrete, Masonry, and Soil and is currently pursuing accreditation through A2LA.

To further show quality is paramount to Eustis Engineering, we have two individuals in charge of maintaining quality in our testing. Travis R. Richards, P.E., is the Engineer-In-Charge. Timmy Holleman, dedicated Quality Control Manager, oversees the calibration of our equipment and maintenance of our quality system. The

biggest reward of our quality system is knowing our clients are confident our testing laboratories produce the highest quality results and conform to state and national standards.

O. To the best of my knowledge, the foregoing is an accurate statement of facts.

Signature:  **Print Name:** Gwendolyn P. Sanders, P.E.

Title: President **Date:** 22 March 2023