

8001 Baymeadows Way, Suite 1 Jacksonville, Florida 32256 P (904) 900-6494 Terracon.com

February 16, 2023

Thomas O'Brien 96135 Nassau Place Suite 2 Yulee, Florida 32097

Re: Nassau County Board of County Commissioners Request for Qualifications (RFQ) for Continuing Contract for Professional Geotechnical and Material Testing Services

Geotechnical and Materials Departments in Jacksonville, Florida Terracon Pursuit No. PEQ235005

Dear Mr. O'Brien,

Terracon Consultants, Inc. (Terracon) appreciates the opportunity to submit this proposal to provide geotechnical and material services for the above-referenced project. The purpose of this study is to provide Professional Geological and Material Testing Services in Nassau County on an as-needed basis. This proposal outlines our qualifications, and understanding of the project and scope, and provides a cost proposal for our services.

By selecting Terracon, you will benefit from our ability to deliver technical expertise in real-time, while working to anticipate and resolve challenges that arise. Terracon has the patented tools, resources, and processes to deliver the end product.

We appreciate the opportunity to provide this response and look forward to working with you.

Sincerely, Terracon Consultants, Inc.

John P. O'Donnell

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John O'Donnell,P.E. Geotechnical Department Manager Shane Whittier, P.E. Material Testing Department Manager Cover Letter
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Image by RockTenn Mill via Google

RockTenn Mill - Fernandina Beach, FL Materials Testing Services Terracon Consultants, Inc.

NLAMM

3.Company Overview Team Organization, Experience and Qualifications

Company Background and Experience



Wherever you are on your project journey, Terracon's employee-owners are ready to meet you where you are and help you reach your goal. Since our founding in 1965, Terracon has grown and evolved to become a thriving, employee-owned, multi discipline engineering consulting firm. Our more than 5,500 curious minds include engineers, scientists, architects, facilities experts, and field professionals focused on solving engineering and technical challenges from more than 175 locations nationwide. On-time and real-time data driven insights, provided by our talented employee owners, create an unmatched client experience that spans the life cycle of any project from earth-to-sky.

Terracon consistently ranks as a top 25 design firm by Engineering News-Record. Our successful growth has included organic expansion and innovation as well as the acquisition of more than 60 firms with specialized capabilities. A focused and uncompromising dedication to safety has been integral to how we support our employees, clients, and communities.

Throughout the life of your project, we won't just point the way – we'll go with you. From site selection, to the design and construction, to maintaining the life of the structure, we'll help you achieve success through engineering and scientific expertise, a passion for problem-solving, and a drive to explore.

We're ready when - and where - you are. Explore with us!











LOCATIONS

Alabama Birmingham Huntsville Mobile

Arizona Avondale Phoenix

Tucson

Arkansas Little Rock Rogers

California

Colton East Bay Lodi Los Angeles Monterey-Burleson Orange County Sacramento Sonoma County

Colorado

Colorado Springs Denver Fort Collins Greeley Longmont

Connecticut Hartford Florida Brevard Ft. Lauderdale Jacksonville Miami Pensacola Port St. Lucie Sarasota Tallahassee Tampa West Palm Beach Winter Park

Georgia Athens Atlanta Atlanta North Columbus

LaGrange Macon Savannah

Boise Illinois

Chicago Downers Grove Glendale Heights Hartford Lombard

Indiana Indianapolis

Iowa

Ames Bettendorf Cedar Falls Cedar Rapids Des Moines Sioux City

Kansas Garden City Kansas City Manhattan

Olathe Topeka Wichita **Kentucky**

Lexington Louisville

Baton Rouge Lake Charles New Orleans Shreveport

Maryland Baltimore Metro Germantown

Michigan Detroit Niles **Minnesota** Minneapolis Rochester St. Paul

Mississippi Biloxi Jackson

Missouri Columbia Joplin Lee's Summit Springfield St. Louis

Montana Billings Great Falls

Nebraska Lincoln Omaha

Nevada Las Vegas

New Hampshire Manchester

New Jersey Northern New Jersey Philadelphia East New Mexico Albuquerque Carlsbad Gallup Las Cruces

New York Albany-Dente Buffalo Ithaca Rochester

North Carolina Asheville Charlotte

Elizabeth City Greensboro Greenville Raleigh

North Dakota Bismarck Dickinson Fargo Grand Forks Jamestown

Ohio Cincinnati Cleveland Columbus

Oklahoma Oklahoma City Tulsa **Oregon** Portland

Pennsylvania Harrisburg Philadelphia West Pittsburgh

South Carolina

Bluffton Charleston Columbia Greenville/ Spartanburg

Tennessee Chattanooga Memphis

Nashville

Texas

Austin

Conroe

Dallas

El Paso

Freeport

Houston

Laredo

Frisco

Fort Worth

Beaumont

College Station

Corpus Christi

Myrtle Beach

Columbia Newport News Richmond Virginia Beach Williamsburg

Washington Seattle Tacoma

West Virginia Charleston

Wisconsin Milwaukee

Wyoming Cheyenne

Waco Utah Ogden Salt Lake City Virginia District of

League City

Round Rock

San Antonio

Longview

Lubbock

Midland

Lufkin

Pharr

Tyler

Company Background and Experience

LOCAL BACKGROUND

Terracon is a growing and dynamic employee-owned geotechnical, materials, facilities, and environmental consulting company. Our North Florida offices have 100 employees with 10 Professional Engineers, 2 Professional Geologists, and 3 Engineering Interns and an additional 350 employees throughout Central and South Florida. We have 5 drill rigs with 5 teams that are well equipped to handle your projects. We are 100% committed to our partnership with Nassau County and it is our strong desire to continue to serve our community as a trusted geotechnical and materials partner.

PROJECT ORGANIZATION AND MANAGEMENT

Terracon will provide you with a team of over 400 years of combined experience that can make real-time decisions in the field to support the project operations and schedule. Our consistency with the project assigned field personnel will aid in the communication at all levels and promote effective scheduling and coordination of inspections. Mr. Shane Whittier, P.E. and Mr. John O'Donnell, P.E., will be our dedicated point of contacts through the duration of the project. They will be assisted by the technicians and specialty staff assigned for the proposed testing and inspections on either a full time or as needed basis.



Company Background and Experience

SAFETY

Safety is one of Terracon's core values and our commitment to an Incident and Injury-Free™ (IIF™) philosophy is one of the pillars of our culture. Successful execution and delivery includes the need to work safely and keep our employees and the public safe every day. Terracon is very much a safety-oriented company. We have built health and safety into all aspects of our business and into the thinking of our employees. The culture is continued further in our everyday work culture, with all meetings beginning with an IIF moment and safety discussion.

WHAT IS INCIDENT AND INJURY-FREE (IIF)?

IIF is about care and concern for people. It is our personal and organizational commitment at all levels of the company to everyone going home safe to their family every day. IIF is safety as a core value as well as an operational priority. Working safely is an inseparable part of working correctly, just as much as other operational priorities, specifically, quality, budget, and schedule. IIF is our commitment to our people, whom we value for who they are and what they do.

Conducting our work safely means conducting our work in the only acceptable way. Incidents, injuries and accidents will not be viewed as problems to make go away, but as opportunities to strengthen IIF. It is about developing a mindset intolerant of any incidents or injuries no matter how minor or infrequent.

OUR RULES TO LIVE BY

IIF is about Our Rules to Live By which are at the foundation of Terracon's IIF culture. These rules give employees clear, specific ways to stay safe on the job, covering essential aspects of safety including personal protective equipment (PPE), equipment and tools, working at heights and depths, motorized vehicle safety, and reporting of injuries. We regularly follow and discuss Our Rules to Live By in our offices and on job sites to ensure everyone is following these fundamental rules. Our focus on pre-task planning also serves to reinforce this message every day.

Terracon's safety program incorporates the IIF[™] Incident and Injury-Free[™] approach to safety trademarked and provided by JMJ Associates.

We cannot just tell someone to "be safe." We can request of our employees to follow Our Rules to Live By. These rules include pre-task planning for each task every day, as well as follow the safe work practices they have been trained to follow to complete work at a task level. Our Rules to Live By have made a measurable difference in keeping our employees safe and in helping us preserve the trust and business with our clients.



Terracon's TRIR* has decreased more than 80 percent in our safety journey. This is accompanying an increase of more than 2,000 employees, demonstrating Terracon's unwavering commitment to build safety and wellbeing into all aspects of our business. Our clients can be assured Terracon employees have a high level of safety awareness extending to every single project and jobsite, so it is safe for your staff, property owners, innocent bystanders, and our staff. *Terracon uses the standard TRIR calculation of number of OSHA-recordable incidents x 200,000 divided by total employee hours worked.



Terracon Team John B. Kimberly IV, P.E. Vice President

PROFESSIONAL EXPERIENCE

John has over 30 years of experience as a geotechnical and materials engineer, including 26 of those years as a consultant to Florida Department of Transportation (FDOT). His expertise includes shallow and deep foundation design, analysis, testing, and inspection. As Lead Geotechnical Engineer on numerous public and private projects, he has been responsible for the entire geotechnical process, including planning, direction, and supervision of drilling, laboratory testing, analysis, and reporting. This experience has been carried forward through construction on numerous design-build (D/B) and traditional bid-build projects.

PROJECT EXPERIENCE

SR 15 (Kings Road) Mast Arms Project - Jacksonville, FL

Principal Geotechnical Engineer. Coordinated and supervised subsurface exploration and geotechnical engineering evaluation for new foundations.

SR 105 over Myrtle Creek - Duval County, FL

Principal Geotechnical Engineer responsible for the geotechnical exploration for a replacement bridge on Heckscher Drive over Myrtle Creek in Duval County.

SR 105 over Simpson Creek - Duval County, FL

Principal Geotechnical Engineer responsible for the geotechnical exploration for a replacement bridge on Heckscher Drive over Myrtle Creek in Duval County.

CR 326 over Wacasassa River - Levy County, FL

Principal Geotechnical Engineer responsible for coordinating and supervising the geotechnical exploration for this bridge replacement project along a rural com roadway in Levy County. The exploration included deep borings utilizing rock P (850) 692-7193 coring and standard penetration test (SPT) borings for the bridge and approaches.

Dillon Road over McGirts Creek - Duval County, FL

Principal Geotechnical Engineer responsible for coordinating and supervising subsurface investigation for the bridge replacement in a rural area of Jacksonville. Driven pile capacity analysis was required for the bridge replacement.

SR 152 (Baymeadows Road) from Freedom Commerce Parkway to Country Day School Drive - Duval County, FL

Principal Geotechnical Engineer for the roadway widening, stormwater treatment, and miscellaneous structure upgrades associated with this project in the Southside area.

SR 10 Atlantic Boulevard from Arlington Expressway to Monument Road - Duval County, FL

Principal Geotechnical Engineer for the roadway widening, stormwater treatment, and miscellaneous structure upgrades associated with this project in the Regency area.



EDUCATION

Bachelor of Science in Civil Engineering, North Carolina State University, 1990

REGISTRATIONS

Registered Professional Engineer, #49866, Florida

YEARS OF EXPERIENCE 30 years

APPROVED INSTRUCTOR CTQP Drilled Shaft

CTQP Pile Driving

CONTACT INFORMATION

john.kimberly@terracon.

Terracon Team Chris L. McIntyre, P.E.

PROFESSIONAL EXPERIENCE

Chris is a Geotechnical Engineer based in Terracon Consultants, Inc.'s Jacksonville office. Chris has over 14 years of field, laboratory, and geotechnical analysis experience. He manages field investigations, conducts engineering analysis, and prepares geotechnical engineering reports for public and private projects throughout North Florida. Chris has managed the entire geotechnical process for numerous Florida Department of Transportation (FDOT) projects both Design-Build and Bid-Build.

PROJECT EXPERIENCE

Proposed Discount Tire Store, Palm Coast, Flagler County, Florida

Engineer of record responsible for geotechnical scope on proposed 8,000 square foot store. Scope included earthwork and the design and construction of foundations for solar panels and ancillary structures.

First Coast Expressway, Clay County, Florida

Project Manager responsible for coordinating the geotechnical exploration for this 46-mile new expressway currently under design in Clay and St. Johns County. The exploration includes more than 900 borings, utilizing seven drill rigs simultaneously for the proposed roadways, stormwater treatment, walls, bridges, and miscellaneous structures in Clay and St. Johns Counties, Florida.

SR 10 from CR 99 to SR 297 Design-Build, Escambia County, Florida

Project Manager and Geotechnical Engineer responsible for geotechnical exploration, testing, analysis, and reporting. The total project length is about four miles and includes roadway widening, as well as draining and bridge structures. Driven pile capacity analysis was required for the bridge replacements.

CR65A Juniper Creek Road Over Juniper Creek, Gadsden County, Florida

Project Manager and Geotechnical Engineer responsible for coordinating the subsurface exploration and geotechnical engineering evaluation for the design of the proposed bridge replacement. Driven pile capacity analysis was required for the bridge replacement.

I-95 from International Golf Parkway to the Duval County Line, St John County, Florida

Project Manager and Geotechnical Engineer for the geotechnical exploration, testing, analysis, and reporting for approximately 9.5 miles of roadway widening of Interstate 95 and stormwater management.

Shipyards Development, Gator Bowl Boulevard, Jacksonville, Duval County, Florida

Principal Geotechnical Engineer for a 12-story hotel and 7-story office building with swimming pools, water features, pavement areas and retention pond areas. The geotechnical scope included recommendations relative to deep foundation design and construction, floor slab requirements, lateral earth pressures, pavement subgrade preparation, dewatering considerations, earthwork, excavation considerations, and support of pavements, pool, and water features.



EDUCATION

Bachelor of Science in Civil Engineering, Florida State University, 2008

Masters of Engineering, George Mason University, 2014

REGISTRATIONS

Registered Professional Engineer, #79171, Florida Also licensed in VA, DC, GA

YEARS OF EXPERIENCE 14 years

CONTACT INFORMATION

chris.mcintyre@terracon. com P (904) 549-7366

John O'Donnell, P.E. Geotechnical Department Manger

PROFESSIONAL EXPERIENCE

Mr. O'Donnell has over 8 years of experience as a Geotechnical Engineer. His expertise includes shallow and deep foundation design, analysis, testing, and inspection. As Lead Geotechnical Engineer on numerous public and private projects, he has been responsible for the entire Geotechnical Process, including planning, direction, and supervision of drilling, laboratory testing, analysis, and reporting. This experience has been carried forward through construction on numerous Design-Build and traditional Bid-Build projects.

PROJECT EXPERIENCE

Rayonier Mill Digester Expansion, Nassau County, Florida

Project Manager responsible for coordinating field exploration and geotechnical engineering in Nassau County, Florida.

Dome HSE Yulee, Yulee, Florida

Department Manager and support to Project Manager responsible for coordinating field exploration and geotechnical engineering in Nassau County, Florida.

Amelia Island Parkway (4 parts), Amelia Island, Florida

Project Manager and Geotechnical Department Manager responsible for coordinating field exploration and geotechnical engineering in Nassau County, Florida.

Chase Bank, Yulee, Florida

Department Manager and support to Project Manager responsible for coordinating field exploration and geotechnical engineering in Nassau County, Florida.

WildLight Development, Yulee, Florida

Department Manager and support to Project Manager responsible for coordinating field exploration and geotechnical engineering in Nassau County, Florida.

UF Health Lift Station, Yulee, Florida

Project Manager and Geotechnical Department Manager responsible for coordinating field exploration and geotechnical engineering in Nassau County, Florida.

First Coast Expressway, Clay County, Florida

Project Manager responsible for coordinating the geotechnical exploration for this 20-mile new expressway proposed for the Jacksonville area. The exploration includes more than 900 borings, utilizing up to 10 drill rigs simultaneously for the proposed bridges, ponds and roadway in Clay County, Florida.

Juniper Creek Road Over Juniper Creek, Gadsden County, Florida

Project Manager and Geotechnical Engineer responsible for coordinating the subsurface exploration and geotechnical engineering evaluation for the design of the proposed bridge replacement.



EDUCATION Bachelor of Science in Civil Engineering, University of Central Florida, 2013

REGISTRATIONS

Registered Professional Engineer, #36435, Florida

YEARS OF EXPERIENCE 8 years

CONTACT INFORMATION

jpodonnell@terracon.com P (904) 549-7376

Terracon Team Shane Whittier, P.E. Materials Testing Department Manger

PROFESSIONAL EXPERIENCE

Shane is a Department Manager for Materials and a Geotechnical Engineer based in Terracon Consultants, Inc.'s Jacksonville office. Shane has over 16 years of experience in materials testing, geotechnical engineering and project management. He provides geotechnical analysis, supervision of engineering staff, and oversight for quality control (QC) testing and engineering inspection services. Shane's experience includes projects for federal, state and local government agencies along with commercial and residential projects.

PROJECT EXPERIENCE

Nassau County Pavement Management Program (PMP) - Nassau County, FL

Served as Project Manager for 5 years which included over 420 miles of paved roadways. Scope included pavement coring and survey/evaluation, existing pavement condition inspection, identifying various types of asphalt and base, providing support and reports on various pavement failures, providing milling recommendations, developing and maintaining the pavement inventory database, analyzing data for project planning, design improvements for specific projects and in-house construction engineering inspection (asphalt plant, asphalt field and earthwork testing). Over 50 miles of roadways were improved under the PMP.

Blackrock Road Widening and Reconstruction Phases 1 and 2 - Yulee, FL

Served as the Project Manager for the design and construction improvements to Blackrock Road. Project Scope included analysis of existing pavement condition, design of roadway improvements including widening and cold-in-place recycling (CIR), resurfacing, signage, and striping.

RockTenn Mill, Fernandina Beach, Florida

Department Manager and support to Project Manager responsible for coordinating laboratory needs and material testing engineering in Nassau County, Florida.

ALDI, Yulee, Florida

Department Manager and support to Project Manager responsible for coordinating laboratory needs and material testing engineering in Nassau County, Florida.

Creekside Christian Church, St. Johns County, FL

Department Manager and Materials Testing Engineer for the CQC testing including soil compaction, concrete testing, threshold inspections and asphalt paving inspections.

Jacksonville Regional Transportation Center - Jacksonville, FL

Materials Testing Engineer and Project Manager responsible for coordinating QC testing for the construction of bus terminals, parking areas, driveways, subsurface fuel tank, pedestrian bridge, and a multi-story administration building. Construction included steel erection, cast in place concrete, concrete paving, asphalt paving, drainage infrastructure, deep foundations, sidewalks and utilities.



EDUCATION Bachelor of Science in Civil Engineering, University of North Florida, 2007

REGISTRATIONS Registered Professional Engineer, #75525, Florida

YEARS OF EXPERIENCE 16 years

CONTACT INFORMATION shane.whittier@terracon. com P (904) 479-7417

Chris R. Martin, Sr.

Laboratory Manager

PROFESSIONAL EXPERIENCE

Mr. Martin has over 36 years of experience with the field and laboratory testing of concrete, aggregates, soils and asphalt. Mr. Martin has experience with material evaluations of concrete, aggregates, soils, and structural steel. He has been involved with construction quality control and quality assurance testing and monitoring including field soils testing and inspection including proof rolling, density testing, penetrometer testing, visual soil classifications (AASHTO/USCS), footing inspections, pile driving, concrete evaluation, and reinforcing steel inspection. Mr. Martin has supervised construction materials and geotechnical laboratories for 30 years and is responsible for obtaining and maintaining certifications, accreditations, validations with such agencies as CCRL, AMRL, AASHTO AAP, USACE, and the FDOT. Has set up and implemented of calibration and reference sample programs in several laboratories.

PROJECT EXPERIENCE

FDOT District II Districtwide Materials Testing Contract

Project and laboratory manager for the laboratory verification testing (VT) including soils, concrete, and asphalt plant testing. Three parts of this contract are in Nassau County.

FDOT District III, IV, and V Miscellaneous Geotechnical Contracts

Project and laboratory manager for the verification testing (VT) including asphalt plant testing.

Jacksonville International Airport Terminal Expansion

Project manager for the materials testing and inspections including soils, concrete, asphalt pavements, and structural steel.

Jacksonville International Airport Centralized Security Checkpoint

Project manager for the materials testing and inspections including soils, concrete, asphalt pavements, and structural steel.

Florida Air National Guard Fuel Complex

Project manager for the materials testing and inspections including soils, concrete, asphalt pavements, and structural steel.

WTP Kings Bay Naval Base

Project manager for the materials testing and inspections including soils, concrete, asphalt pavements, and structural steel.

FLETC Intermodal Training Facility Brunswick Georgia

Project manager for the materials testing and inspections including soils, concrete, asphalt pavements, and structural steel.

Port Operations Waterfront Facility, Blount Island MCSF

Project manager for the materials testing and inspections including soils, concrete, asphalt pavements, and structural steel.



CERTIFICATIONS

NICET Level IV Concrete, Soils, and Asphalt Nuclear Density Gauge Certification Quality Geotechnical Lab Course, University of Missouri at Rolla ACI Laboratory Testing Technician ACI Aggregate Field-Testing Technician ACI Aggregate Laboratory Testing Technician Level 1 ACI Concrete Laboratory Testing Technician Level 1 **CTQP LBR Technician CTQP** Qualified Sampler CTQP Concrete Lab Technician Level 1 **CTQP** Aggregate Testing Technician **CTQP** Aggregate Base **Testing Technician**

YEARS OF EXPERIENCE 41 years

CONTACT INFORMATION

chris.martin@terracon.com P (904) 900-6494

Erik J. Bluemke

Drilling Manager

PROFESSIONAL EXPERIENCE

Mr. Bluemke has 25 years of geotechnical and environmental drilling experience. He manages the Winter Park Exploration team of employees responsible for exploration services. His management responsibilities includes executing the initiatives of exploration services including development of drilling safety practices/initiatives, drill rig inspection programs and compliance. He oversee and ensure consistent operations and practices of exploration teams by providing training, drill rig safety inspections, and monitoring/balancing workload [employees, rigs and projects]. He monitors the performance of the local teams through site visits, safety incident and near miss investigations, quality audits and metrics. Mr. Bluemke provides leadership and direction on drilling practices and rig utilization/fleet management to local offices and partners with other Exploration Managers to develop and deliver coordinated and consistent exploration services across all regions.

Mr Bluemke assist local offices with marketing/proposal activities related to exploration services including pricing, planning and drill methods. This includes developing, understanding and being aware of project-related risk. Communicates safety initiatives, rules and guidelines for Office or Region. Holds Managers and Employees accountable for following safety rules and guidelines. Promote continuous quality monitoring and improvement on projects. Ensure best practices are being followed and hold employees accountable for quality control standards.

He participates and provides input in the recruitment, interview and selection process for drillers.

PROJECT EXPERIENCE

Overland Bridge, Jacksonville, Florida

Master Diller to provide extensive rock coring to depths greater than 100'. Responsible to provide coring slurry walls and doing RQD testing for the Overland Bridge Replacement project, which extends from approximately 1,500 feet north of Palm Avenue to approximately 2,200 feet south of San Diego Road in Duval County, south of Downtown Jacksonville. The planned construction includes associated MSE walls, ramps, roadway re-alignments, stormwater treatment facilities, and miscellaneous structures.

Herbert Hoover Dike Rehabilitation Project South Florida

Master Driller to provide QA/QC drilling and inspection services to Bauer Construction for Reach 1 - Task Orders E and F of the Herbert Hoover Dike Seepage Cut-off Wall. This rehabilitation project is one of the largest and most complex dike restoration projects in the Nation. Responsible for providing coring slurry wall and inclinometer testing for the rehabilitation of the dike's most vulnerable section, the 22-mile section between Port Mayaca and Belle Glade

Duke Energy

Extensive rock coring to depths greater than 100'. Coring slurry walls and doing RQD testing.

EDUCATION

Associates Degree in Applied Science, State University of New York, 1987

CERTIFICATIONS

Florida Chauffeur's Driver's License (CDLA)

8-Hour Hazardous Substance Annual Recertification Course

40-Hour Hazardous Substance Health and Safety Training Course for Site Workers

Department of Environmental Conservation Licenses - 7A (pesticides), 7C (termidicides) and Nuisance Wildlife Control

State of New York/New York City Asbestos Handler License

YEARS OF EXPERIENCE 25 years

CONTACT INFORMATION erik.bluemke@terracon. com

Terracon Team Mingu Kim, Ph.D., P.E. Geotechnical Regional Services

PROFESSIONAL EXPERIENCE

Dr. Kim has over 18 years of civil and geotechnical engineering. His expertise includes Dynamic Load Testing using Pile Driving Analyzer (PDA) and Embedded Data Collector (EDC), CAPWAP and GRLWEAP analyses, pile length and driving criteria recommendations, pile installation plan (PIP) review and hammer suitability/driveability evaluation, review of other deep foundation testing such as Cross Hole Sonic Logging (CSL), Pile Integrity Tester (PIT), Thermal Integrity Profiler (TIP) and Static Load Testing (SLT).

REGISTRATIONS

Registered Professional Engineer, Florida #64456 (May 2006) S. Carolina #37173 (Sep 2019) N. Carolina #049881 (Jan 2020)

CERTIFICATIONS

PDCA/PDI Certificate- PDA Master Level FDOT CTQP Pile Driving Instructor

Lee Jiang, Ph.D., P.E. Geotechnical Engineer

PROFESSIONAL EXPERIENCE

Dr. Jiang is a Geotechnical Engineer based in Terracon Consultants, Inc.'s Jacksonville office. Dr. Jiang has 8 years of field, laboratory, and geotechnical analysis and design experience. He has been the project manager and assistant project manager on field investigations, conducts engineering analyses, and prepares geotechnical engineering reports for public and private projects throughout North Florida.

REGISTRATIONS

Registered Professional Engineer, Florida #82280

CAPABILITIES

Shallow Foundation Analysis and Design Deep Foundation Analysis and Design Retaining Wall Analysis and Design Settlement Analysis and Monitoring Slope Stability Analysis and Monitoring Ground Improvement Seismic wave-based Site Characterization Finite Element Analysis

Kirk A. McIntosh, P.E., D.GE Geotechnical Engineer

Geolechnical Engineer

PROFESSIONAL EXPERIENCE

Mr. McIntosh has been involved in geotechnical explorations for several FDOT projects during his career. Projects have been performed in Districts 2, 3, 4, and 5. These projects have involved both driven pile and drilled shaft foundations, and load testing using static (bi-directional), dynamic (PDA), and rapid (Statnamic) testing methods. Mr. McIntosh has 41 years of experience.

REGISTRATIONS

Professional Engineer, Civil: Florida No. 33703, Georgia No. 15087 Diplomate of Geotechnical Engineering, 2011

CAPABILITIES

High-capacity deep foundation design Driven and cast-in-place pile design and installation Static load testing of deep foundations Dynamic load testing of deep foundations

Tom E. Selfridge, P.E.

Geotechnical Engineer

PROFESSIONAL EXPERIENCE

Tom has over 37 years of experience as a geotechnical engineer and has managed thousands of geotechnical exploration projects at sites throughout Florida, Georgia, South Carolina, North Carolina and the Caribbean. He has extensive expertise in geotechnical explorations and evaluations for mid to high-rise office buildings, parking garages, roadways, bridges, schools, shopping centers, mixed-use facilities, residential subdivisions, utility pipelines, cellular communication towers, wastewater treatment facilities, airports and distressed/damaged existing structures.

REGISTRATIONS

Registered Professional Engineer, Florida #41199, 1989

CAPABILITIES

Geotechnical and Materials Engineering Design-Build and Deep Foundation Design Consultation Pile and Drilled Shaft Capacity Evaluation

Terracon Team Casyn M. Meek, P.E. Materials Testing Project Engineer

PROFESSIONAL EXPERIENCE

Mr. Meek is a Project Manager and Project Engineer with 6 years of experience. Casyn is a member of Terracon's Deep Foundation's Team where he is involved in the Dynamic Load Testing of piles using PDA (Pile Driving Analyzer), and drilled shaft testing including CSL (Cross-Hole Sonic Logging) and TIP (Thermal Integrity Profiling). Casyn is also a Project Manager and Materials Testing Engineer on a multitude of CMET (Construction Materials and Engineering Testing) projects.

REGISTRATIONS

Registered Professional Engineer, Florida No. 94310, 2022

CERTIFICATIONS

PDA Certification No. 2892 FDOT CTQP Pile Inspector FDOT CTQP Drilled Shaft Inspector PTI Unbounded Post Tension Installation Certification ACI Concrete Strength Testing

Steven Weatherford, E.I.

Geotechnical Senior Staff Engineer

PROFESSIONAL EXPERIENCE

Steven is a geotechnical engineer in Terracon's Jacksonville, FL office. Steven graduated from the University of North Florida where he received his Bachelor of Science in Civil Engineering. Steven's primary role is a geotechnical project manager. Mr. Weatherford has also gained experience from other firms in the areas of construction materials testing, transportation and drainage design for FDOT projects, as well as surveying for civil construction.

REGISTRATIONS

Engineering Intern: No. 1100024362 01/2021

CERTIFICATIONS

ACI Concrete Strength Testing Technician ACI Aggregate Base Testing Technician

Matthew Drysdale, E.I. Materials Testing Senior Staff Engineer

PROFESSIONAL EXPERIENCE

Mr. Drysdale is a Senior Staff Engineer with three years of experience in Terracon Consultants, Inc.'s Jacksonville, FL office. Matthew graduated from the University of North Florida where he received his Bachelor of Science in Civil Engineering. Matthew's primary role is a CMET (Construction Materials and Engineering Testing) project manager, but he has also assisted other offices across the country (Denver, Nashville, Tampa, Pensacola) with drilling oversight and working as a technician.

REGISTRATIONS

Engineering Intern: No. 1100022692 6/2019

CERTIFICATIONS

CTOP Drilled Shaft Inspector (Pending) CTQP Pile Driving Inspector (Pending) ACI Concrete Field-Testing Technician – Level 1 CTQP Earthwork Construction Inspection – Level 1 CTQP Concrete Field-Testing Technician – Level 1

Chris R Martin, Jr.

Materials Testing Project Manager

PROFESSIONAL EXPERIENCE

Mr. Martin has over 20 years of experience with the field and laboratory testing of concrete, aggregates, soils and asphalt. Mr. Martin has experience with material evaluations of concrete, aggregates, and soils. He has been involved with construction quality control and quality assurance testing and monitoring including field soils testing and inspection including proof rolling, density testing, visual soil classifications (AASHTO/USCS), concrete evaluation, and reinforcing steel inspection.

CERTIFICATIONS

- ACI Aggregate BaseTesting Technician
- ACI Aggregate Laboratory Testing Technician Level 1
- ACI Concrete Field Testing Technician Grade 1
- ACI Concrete Laboratory Testing Technician Level 1
- ACI Concrete Strength Technician
- **CTQP LBR Technician**
- **CTQP** Qualified Sampler
- CTQP Concrete Lab Technician Level 1
- CTQP Aggregate Testing Technician
- CTQP Aggregate Base Testing Technician
- CTQP Asphalt Plant Technician Level 1

Billy Harpster Geotechnical Exploration/Drilling Assistant Manager

PROFESSIONAL EXPERIENCE

Billy has worked as a Engineering Technician for more than 3 years performing geotechnical drilling oversite, field supervision and laboratory testing. He currently works in Terracon's Jacksonville office as an Engineering Technician and is responsible for assisting project management, review and implementation of safety and exploration plans, visual and laboratory classification of soil, and drilling oversite.

CAPABILITIES

Shallow Foundation Analysis **Deep Foundation Analysis Retaining Wall Analysis** Settlement Analysis and Monitoring Slope Stability Analysis and Monitoring Ground Improvement Seismic wave-based Site Characterization **Finite Element Analysis**

Peter J. Craig

Geotechnical CADD Designer

PROFESSIONAL EXPERIENCE

Peter has worked in the geotechnical and material testing industry for more than 15 years. His experience includes plan sheet and exhibit CAD design, planning/direction/supervision of drilling services, public and private geotechnical and environmental project management, laboratory and field soils testing, concrete inspection and testing, and asbestos and lead paint inspection. He currently serves as the Jacksonville CAD Designer for Geotechnical Services and is responsible for plan sheet and exhibit production for public and private projects.

CAPABILITIES

Plan Sheets **Exhibit Production**

Matt Darden

Geotechnical Staff Engineer

PROFESSIONAL EXPERIENCE

Matthew has worked as a Engineering Technician for more than 5 years performing geotechnical drilling oversite, field supervision and laboratory testing. He currently works in Terracon's Jacksonville office as a Field Engineer and is responsible for review and implementation of safety and exploration plans, visual and laboratory classification of soil, and drilling oversite.

CAPABILITIES

Shallow Foundation Analysis and Design Deep Foundation Analysis and Design Retaining Wall Analysis and Design Settlement Analysis and Monitoring Slope Stability Analysis and Monitoring Ground Improvement Seismic wave-based Site Characterization Finite Element Analysis

Tom Hallahan

Geotechnical Field Engineer

PROFESSIONAL EXPERIENCE

Thomas is a Geotechnical Field Engineer based in Terracon Consultants, Inc.'s Jacksonville office. Thomas has approximately 16 years of field, laboratory, and geotechnical analysis experience on public and private projects throughout Central and North Florida. Thomas has experience with Dynamic Load Testing of piles using PDA (Pile Driving Analyzer) and EDC (Embedded Data Collector) and CAPWAP and WEAP analysis. He is also a certified Pile Driving Inspector for the installation of production piles and drilled shafts.

APPROVED INSTRUCTOR

PDCA - PDA/CAPWAP **CTOP** Drilled Shaft Inspection **CTOP** Pile Driving Inspection ACI – Aggregate Base Testing

Justin Patino

Exploration/ Driller

PROFESSIONAL EXPERIENCE

Justin has been in the industry for 5 years now. His responsibilities include oil changes, greasing the rig, inventory checks, pressure washing equipment and mobilizing equipment to the job site.

CAPABILITIES

Shallow Foundation Analysis Deep Foundation Analysis **Retaining Wall Analysis** Slope Stability Analysis and Monitoring Ground Improvement Finite Element Analysis

Fred Sieligowski

Exploration/ Driller

PROFESSIONAL EXPERIENCE

Fred's responsibilities include oil changes, greasing the rig, inventory checks, pressure washing equipment and mobilizing equipment to the job site.

CAPABILITIES

Shallow Foundation Analysis **Deep Foundation Analysis** Retaining Wall Analysis Slope Stability Analysis and Monitoring Ground Improvement Finite Element Analysis

Mike Waller

Exploration/ Driller

PROFESSIONAL EXPERIENCE

Mike's responsibilities include oil changes, greasing the rig, inventory checks, pressure washing equipment and mobilizing equipment to the job site.

CAPABILITIES

Shallow Foundation Analysis **Deep Foundation Analysis** Retaining Wall Analysis Slope Stability Analysis and Monitoring Ground Improvement **Finite Element Analysis**

Tyler Cozart

PROFESSIONAL EXPERIENCE

Tyler's responsibilities include oil changes, greasing the rig, inventory checks, pressure washing equipment and mobilizing equipment to the job site.

CAPABILITIES

Shallow Foundation Analysis **Deep Foundation Analysis** Retaining Wall Analysis Slope Stability Analysis and Monitoring Ground Improvement Finite Element Analysis

Chris Rabon

Materials Testing Senior Inspector

PROFESSIONAL EXPERIENCE

Mr. Rabon has over 12 years' structural steel testing and inspection experience in both heavy industrial and commercial construction projects.

CERTIFICATIONS

American Welding Society - Certified Welding Inspection ASNT Ultrasonic Testing Inspector Level II ASNT Magnetic Particle Testing Inspector Level II

Todd Taylor Materials Testing Senior Inspector

PROFESSIONAL EXPERIENCE

Mr. Taylor has over 34 years' structural steel testing and inspection experience in both heavy industrial and commercial construction projects.

CERTIFICATIONS

American Welding Society – Certified Welding Inspection ICC Structural Steel Inspector ICC Structural Welding Special Inspector

ICC Structural Bolting Certification

ICC Spray Applied Fireproofing Inspector

Chase Bonham

Materials Testing Engineering Technician

PROFESSIONAL EXPERIENCE

Mr. Bonham has approximately 10 months of experience as an engineering technician. His experience includes field testing and inspection of construction materials including soils, concrete, and asphalt.

CERTIFICATIONS

Nuclear Density Gauge Safety

Tony Counts

Materials Testing Field Technician

PROFESSIONAL EXPERIENCE

Mr. Counts has worked as a Technician and an Inspector for over 20 years. He has tested concrete, soils and asphalt as well as overseen construction on FDOT projects.

CERTIFICATIONS

CTOP Earthwork Construction Inspection-Level 1 CTQP Earthwork Construction Inspection-Level 2

Thiago Faria

Materials Testing Engineering Technician

PROFESSIONAL EXPERIENCE

Thiago is based in our Jacksonville, Florida office as an assistant project manager for materials. He has less than a year experience with Terracon.

EDUCATION

Bachelor's degree in Industrial Engineering, Universidade Vega de Almeida, Brazil

Asmer Dominguez Materials Testing Engineering Technician

PROFESSIONAL EXPERIENCE

Mr. Dominguez has approximately 4 years of experience as an engineering technician. His experience includes field and laboratory testing and inspection of construction materials including soils, concrete, asphalt, and steel.

CERTIFICATIONS

Radiation Safety Training Course CTOP Earthwork Construction Inspection – Level 1 ACI Field Testing Technician I ACI Concrete Strength Testing Technician

Chase Waltrip

Materials Testing Engineering Technician

PROFESSIONAL EXPERIENCE

Mr. Bonham has approximately 1 year of experience as an engineering technician. His experience includes field testing and inspection of construction materials including soils, concrete, and asphalt.

CERTIFICATIONS

Radiation Safety Training Course CTQP Earthwork Construction Inspection – Level 1 ACI Field Testing Technician I

Sean Olds

Materials Testing Engineering Technician

PROFESSIONAL EXPERIENCE

Mr. Olds has approximately 4 years of experience as an engineering technician. His experience includes field and laboratory testing and inspection of construction materials including soils, concrete, asphalt, and steel.

CERTIFICATIONS

Radiation Safety Training Course CTQP Earthwork Construction Inspection – Level 1 CTQP Earthwork Construction Inspection – Level 2 ACI Field Testing Technician I CTOP Concrete Field Inspector I

Michael Crawford

Materials Testing Engineering Technician

PROFESSIONAL EXPERIENCE

Mr. Crawford has approximately 15 years of experience as an engineering technician. His experience includes field and laboratory testing and inspection of construction materials including soils, concrete, asphalt, and steel.

CERTIFICATIONS

Radiation Safety Training Course CTQP Earthwork Construction Inspection - Level 1 CTQP Earthwork Construction Inspection - Level 2 ACI Field Testing Technician I CTQP Concrete Field Inspector I

Shannon Burgess

Materials Testing Senior Inspector

PROFESSIONAL EXPERIENCE

Mr. Burgess has over 10 years' experience in material evaluations of concrete, structural steel, and high-performance protective coating. Construction Quality Control and Quality Assurance Testing and Monitoring, Non-destructive Testing utilizing the Ultrasonic, Magnetic Particle, and Liquid Penetrant methods. Served five years as a corrosion assessment and prevention consultant for the Alaska Department of Transportation.

CERTIFICATIONS

NACE Senior Coating Inspector Level III. SSPC Protective Coating Specialist. American Welding Society – Certified Welding Inspector. ASNT SNT-TC-1A Level II UT/MT ICC Master Special Inspector

Shane Watson

Materials Testing Field Technician

PROFESSIONAL EXPERIENCE

Shane has over 18 years extensive training and experience in the full spectrum of construction materials testing and special inspection tasks associated with commercial, institutional, industrial, retail and parking and transportation related structures. From soils and aggregate earthwork activities to cast-in-place concrete, masonry, post-tensioning, reinforcing steel, asphalt and other specialty inspections, Mr. Watson has acted as lead field technician performing the full complement of required inspections, thus limiting the number of additional technicians needed at a project site. He olds certifications in Concrete, Soils and OSHA 30 Hour Safety, and continues his education through on-site hands-on training conducted by in-house Senior Geotechnical and Environmental Principals.

CERTIFICATIONS ACI Level I

Philip Harbison Materials Testing Senior Engineering Technician

PROFESSIONAL EXPERIENCE

Mr. Harbison has over 11 years of experience as an engineering technician. His experience includes field and laboratory testing and inspection of construction materials including soil, concrete, and asphalt for commercial and transportation projects.

CERTIFICATIONS

CTQP - LBR Technician CTQP - Asphalt Plant 1 CTQP – Asphalt Plant 2 CTOP – Qualified Sampler CTQP - Concrete Lab Technician Level 1 CTQP – Aggregate Testing Technician CTQP – Base Testing Technician TIN - H61267882

Travis Paquette

Materials Testing Asphalt Plant Inspector

PROFESSIONAL EXPERIENCE

Travis is an Engineering Technician for Materials and has been internally vetted and based at the Terracon Consultants, Inc.'s Jacksonville office. He has over 5 years of experience in asphalt and concrete operations. His experience includes field and laboratory testing and inspection of construction materials, including soil, concrete, and asphalt for commercial, federal, and transportation projects.

CERTIFICATIONS

CTQP Asphalt Plant Inspector Level I CTQP Asphalt Plant Inspector Level 2 ACI Concrete Field-Testing Technician ACI Concrete Strength Testing Technician U.S. Army Corps of Engineers Construction Quality Management for Contractors MAC ID: S0152048

Ron Raulerson

Materials Testing Senior Inspector

PROFESSIONAL EXPERIENCE

Mr. Raulerson has over 35 years' experience in Material Evaluations of Concrete, Aggregates, Soils, and Structural steel. Construction Quality Control and Quality Assurance Testing and Monitoring, Field Soils Testing and Inspection including Proofrolling, Density Testing, Penetrometer Testing, Visual Soil Classifications (USCS), Footing Inspections, Pile Driving, Concrete Evaluation and Rebar Inspection, Cathodic protection installation inspection and Evaluation, and Structural Steel Testing and Inspection.

CERTIFICATIONS

Threshold Inspector BN 5457-Florida Post Tension Institute - Installer /Inspector Level 1 and 2 American Welding Society – Certified Welding Inspection

Greg Scott Senior GIS Analyst

PROFESSIONAL EXPERIENCE

Mr. Scott is a GIS Analyst with over 24 years of experience in our Jacksonville, FL office. His private sector experience includes direct support of civil engineering, environmental, forestry and facility/land planning and design companies. He specializes in large dataset acquisition/creation and management, cartographic/thematic mapping, environmental/ specialized analysis, mobile GPS technologies, technical design, client coordination and report writing.

CERTIFICATIONS

GISP Certification, 2014, No. 83420

Kerry Olds Secretary/Clerical

PROFESSIONAL EXPERIENCE

Kerry has been with Terracon for 19 years and has 35 years of experience in the engineering field. Under the direction of a Division Manager or Office Manager, Manage the operational and fiscal activities of an administrative department. Plan and develop systems and procedures to improve the operating quality and efficiency of the department. Supervises clerical staff and administrative (non-technical). With limited supervision from the office manager, regularly exercises independent judgment in administration duties of a confidential nature and performs more responsible department level administrative functions. She is also proficient in computer programs such as Consultant Invoice Transmittal System "CITS", Equal Opportunity Compliance System "EOC" and Project Cost Redistribution "PRC" all are FDOT data entry programs.

Terracon has assembled a highly skilled team experienced in all services requested in the RFP/RFQ. These services will be performed in house with local resources. Our team will keep your project on schedule and costs in line with the project goals.

The Terracon Team has the ability to partner with Meskel & Associates Engineering, NicNevol Engineering Services, Inc. and STV, Inc. to provide field and laboratory support, when needed. Meskel and NicNevol are local Disadvantaged Business Enterprises (DBE). Meskel and NicNevol provide Construction and Engineering Inspection, Geotechnical and Material Testing services for many projects in the Jacksonville area and will be a great addition to our team.

MESKEL & ASSOCIATES ENGINEERING

Meskel & Associates Engineering Geotechnical r Environmental r Inspection r Testing

Meskel & Associates Engineering core business is providing high quality geotechnical services (engineering, drilling and laboratory testing) and construction materials testing (field and laboratory) services. MAE is a certified Disadvantaged Business Enterprise (DBE), woman-owned small business

established in Jacksonville, Florida in 2008 that is licensed in the State of Florida to practice Professional Engineering and Geology. Our staff of 39 includes engineers, geologists, CAD operators, field and laboratory technicians and inspectors, and administrative support staff. MAE can provide the engineering expertise needed to assess construction and long-term performance risks associated with subsurface conditions to develop innovative, practical, and cost-effective foundation recommendations for your project design team, and can provide certified and experienced field and laboratory technicians to provide the necessary construction materials tests in the field and in our accredited laboratory.

Our expertise includes performing subsurface investigations, laboratory and field testing of soils and construction materials, and preparation of recommendations for design and construction. We are prepared to support the team's technical needs from your project's preliminary phase through all construction phases, as needed. On every project, we strive to provide quality, safe, and responsive services. MAE has the resources and availability to meet the requirements of your projects, and we look forward to being a trusted partner to your design team.

NICNEVOL ENGINEERING SERVICES, INC.



NicNevol Engineering Services, Inc. (NicNevol) is a multi-disciplinary firm which specializes in geotechnical engineering, construction materials testing (CMT), and construction engineering inspection (CEI). We aim to provide the services needed to complete all contract work on time and within budget.

Our team of experienced staff is trained to provide practical solutions to complex problems. This is accomplished through our understanding of industry practices, quality leadership skills and local expertise, we strive to reach our goal of delivering a successful project to our clients.

NicNevol is a premier provider of delivering successful projects to both public and private clients across Florida with office locations in Jacksonville and Gainesville. NicNevol has more than 15 employees and over 40 years of combined experience of working in Florida.

NicNevol has provided all our services—geotechnical, construction materials testing and inspection on federal, state, and local funded projects. We are well versed and experienced with testing procedures and contract requirements. NicNevol has also worked on multiple roadways, bridges and drainage projects throughout Northeast Florida.

STV, INC.



For over 100 years, STV Inc. is a multi-disciplinary firm providing architectural, engineering planning, environmental, program and construction management services for infrastructure and transportation systems. This also includes rail, mass transit, highways and bridges, water, healthcare infrastructure, education and justice. STV, Inc. has over 2,200 people and contribute our success to be client-focused and quality- driven.

Terracon Team P. Rodney Mank, P.E.

PROFESSIONAL EXPERIENCE

Mr. Mank is a licensed Professional Engineer in Florida and Georgia with more than 35 years of technical and managerial experience, including managing all levels of geotechnical engineering and material testing projects from field and laboratory personnel and resources, junior and senior level engineering staff, to serving as a technical resource to clients. Rodney's project experience includes geotechnical services for new roadway and roadway widenings, new bridge and bridge replacements, pavement design, drainage and stormwater management structures and ponds, intersection improvements including lighting and signal structures, and multiuse/purpose trail and recreational facilities construction.

PROJECT EXPERIENCE

Nassau County Westside Park, Nassau County, FL

Principal Engineer. This project will consist of a 110-acre regional park located near Hilliard. Park structures will include a community building, amphitheater, Airnasium, and overlook and picnic pavilions. Amenities will include 11,000 linear feet of paved trails including elevated boardwalks, 6 athletic fields, fishing ponds and 90,000 square feet of amphitheater lawn area. Track and ATV-mounted drilling rigs were mobilized to the site to drill 54 SPT and 65 auger borings and explore the site subsurface conditions. Prior to mobilization, access paths were cleared due to the dense vegetation. Our geotechnical engineering recommendations included shallow foundations and slabs-on-grade for all structures, timber piling to support the boardwalks through wetland areas, and a flexible pavement section for the 7,300 linear-foot 2-lane access roadway. Future work will include modeling the drawdown of wetland areas adjacent to the stormwater ponds once the final pond layout and design water levels are determined. Any adverse impacts will be mitigated through the construction of vertical groundwater cutoff walls along the pond berm or the installation of an impervious liner along the pond bottom and sides.

JEA Nassau WRF Phase 2 Expansion, Nassau County, FL

Principal Engineer The Water Reclamation Facility (WRF) is located on Amelia Concourse south of SR 200 in Yulee, FL. The project included a significant expansion of the capabilities of the WRF and included an Oxidation Ditch, Headworks, Reclaimed Water Storage Tank, Sludge Holding Tank, effluent and non-potable water pump stations, Operations and Maintenance Buildings, and several smaller structures and grade-supported slabs holding process equipment. Much of the new construction was to occur within 2 existing Rapid Infiltration Basins (RIB) that were being abandoned. Our field exploration encountered predominately sandy soils that allowed for shallow foundation design for the planned structures and new pavements for access roads. However, tight settlement tolerances for the Oxidation Ditch and Sludge Holding Tank required a ground improvement program consisting of stone columns (Vibro-Replacement) to densify the foundation soils. Our geotechnical report provided the results of our field and laboratory testing programs, our evaluation of the encountered subsurface conditions, and our recommendations for foundation design and construction.





EDUCATION MBA – University of South Florida, 1996

BSCE – University of Florida, 1984

Graduate Courses, Civil Engineering – University of Central Florida, Florida International University, 1986-1988

REGISTRATIONS

Florida Professional Engineer No. 41986

Georgia Professional Engineer No. 033805

YEARS OF EXPERIENCE 39 years

CONTACT INFORMATION

Rodney@meskelengineering.com

P (904) 519-6990

3728 Philips Highway, Suite 208 Jacksonville, Florida 32207

Terracon Team Brett Harbison, P.E. Geotechnical Services Director/Senior Geotechnical Engineer

PROFESSIONAL EXPERIENCE

Brett has 16 years of field, laboratory, and geotechnical analysis experience on public and private projects throughout Florida. As Geotechnical Services Director, he manages all personnel and geotechnical processes for every project, including planning and proposal preparation, supervision of field and laboratory testing, and preparation and oversight of engineering analysis and reporting. Brett is the Contract and Project manager for MAE's Florida Department of Transportation work. He has provided dynamic load testing services using the Smartpile EDC System on numerous pre-stressed, pre-cast concrete driven piles on bridge foundation construction projects throughout Florida.

PROJECT EXPERIENCE

Nassau County Westside Park, Phase 1, Nassau County, Florida Senior Geotechnical Engineer, Project includes the development and construction of a regional-scale park facility to include community building and restrooms, a prefabricated amphitheater and other metal buildings, playfields, picnic pavilions, playground and shade structures, elevated boardwalks, access roadways and a trail system. MAE's scope of work includes performing field explorations and laboratory testing and providing engineering recommendations for design and construction of shallow and deep foundations, flexible pavement sections, and stormwater management facilities.

William Burgess Blvd to Police Road 16-in RWM, Nassau County

Senior Geotechnical Engineer, Project included the design and construction of Certified SmartPile a 16-inch reclaimed water main (RWM) for approximately 15,300 feet along SR200 between Tributary Dr and William Burgess Blvd. MAE's scope of work included performing Standard Penetration Test (SPT) borings along the pipeline alignment which included Jack-and-Bore and Horizontal Directional Drill (HDD) crossings. An engineering report was provided that included recommendations for design of pipeline support, and HDD and Jack-and-Bore drilling, and construction recommendations including groundwater control, preparation of bedding soils, excavation protection and roadway reconstruction.

US Highway 1 & CR 210 Mast Arm Foundation Structures, St. Johns **County**, Florida

Geotechnical Engineer. The locations of the two-mast arm signal pole structures were on the northeast and southwest corners of US1 and CR 210 intersection. MAE services included Standard Penetration Test (SPT) borings to obtain soil samples and measure groundwater levels encountered at the boring locations, soil classification and laboratory testing and engineering analysis. MAE provided soil parameters for design of the drilled shaft structures.

City of Jacksonville Mayport Docks Redevelopment, Jacksonville

Senior Geotechnical Engineer responsible for the geotechnical exploration, laboratory testing, and engineering analysis and reporting for the proposed fixed and floating docks to be located along the south bank of the St. Johns River approximately 1,000 feet south of the east dock of the Mayport Ferry. Proposed dock lengths total approximately 1,320 linear feet (South dock is 670 LF, Ocearch dock is 285 LF, and the North dock is 365 LF).





EDUCATION BSCE – Florida State University, 2007

REGISTRATIONS Florida Professional Engineer No.74679

EDC System (User ID #020FL0029-13)

YEARS OF EXPERIENCE 16 years

CONTACT INFORMATION

BHarbison@meskelengineering.com

P (904) 519-6990

3728 Philips Highway, Suite 208 Jacksonville, Florida 32207

Terracon Team Bensa Nukunya, P.E.



Mr. Nukunya is a licensed professional engineer with over 22 years of experience in managing construction engineering inspection and materials testing projects. He has worked as a project engineer and project manager for a wide variety of projects for FDOT, city, state and federal government levels, as well as commercial. Projects have included roadways and bridges, water treatment plants, sewer and water supply lines, commercial and residential structures, port/coastal facilities, recreational facilities/parks, wetland restoration projects, and canal dredging. Mr. Nukunya has strong technical background in geotechnical and foundations engineering. Bensa's expertise also includes providing Quality Control Project Management services on various materials testing and inspection projects and FDOT's CQC programs, as well as providing laboratory testing services for Jacksonville Aviation Authority, City of Jacksonville, FDOT Districts 2, 4 and 6, Florida's Turnpike, and SFWMD. He has performed QA/QC services for roads, bridges, fire stations, levees, dikes, pump stations, and parks. He is an expert in soils, concrete, asphalt, aggregates, soil-cement design, and trouble soils.

PROJECT EXPERIENCE

FDOT, Verification Quality Control Contract, District 2, 4, 6 & Turnpike Project Manager/Engineer. Responsible for material testing and inspection services on a task by task bases, that encompass various construction contracts throughout the District. Projects included bridges, box culverts, minor and major roadways and highways, mast arms, retaining walls and various miscellaneous projects. Managed and scheduled all inspection and technician personnel to assure soil, concrete and asphalt materials where inspected and testing in accordance with standards and procedures.

FDOT, Districtwide 4 & 6 Geotechnical Engineering & Testing Contract

Project Manager/Engineer. Responsible for technical direction of field and laboratory services for the projects under the contract. Also responsible for geotechnical analysis and evaluation of field and laboratory data and geotechnical engineering evaluation and recommendations for design and construction of roadway and foundations, recommending site preparation, and earthwork construction.

SR 19 Mill & Resurface Project, FDOT District 2, Putnam County

Project Manager/Senior Project Engineer. Work consisted of mill and resurfacing, base work, shoulder treatment, drainage improvements, highway signing, guardrail, bridge works, and other incidental construction.

JTA, Atlantic/Kernan Intersection Improvements, Duval County, FL

Senior Geotechnical Engineer. Responsible for designing drilled shafts and driven piles foundations for the bridge structures. Analyses on this bridge consisted of evaluation of site stratigraphy, development of profiles for drilled shaft and piles design, selection and assignment of soil parameters/properties for each layer or stratum, determination of ultimate skin friction, end bearing, and total capacity, development of curves of pile capacity vs. depth for various size shafts, application of appropriate resistance factors, estimating settlement, preparation of pile data tables, preparation of reports describing the design efforts, and drilled shaft construction recommendations.



EDUCATION

PhD, Civil Engineering (Materials & Pavement) University of Florida, 2001

MS, Civil Engineering (Geo-Environmental) University of Toledo, 1998

BS, Civil Engineering, University of Science & Technology/Ghana, 1993

REGISTRATIONS PE, Florida, #59440 PE

Louisiana, #34144 PE

Georgia, #37309

YEARS OF EXPERIENCE 22 years

CONTACT INFORMATION bnukunya@nicnevol.com

3728 Philips Highway, Suite 11A Jacksonville, Florida 32207

Terracon Team Webert Lovencin, P.E.



Mr. Lovencin has over 20 years of experience in roadway and bridge construction. He started working at the Florida Department of Transportation (FDOT) as a Professional Engineering (PE) Trainee. He spent two years as a PE Trainee undergoing a comprehensive training program that introduced graduate engineers to all facets of engineering within the Department. This included design, materials, construction, maintenance, and administration. He worked for FDOT District 2 Construction serving as Construction Project Engineer, Project Administrator, and Project Manager. He now works for this firm serving in multitude roles such as CEI project engineer, contract support specialist, project manager, etc. Mr. Lovencin has experience in the inspection of drainage inlets and pipe installation, pipe lining, roadway base and asphalt (mill & resurface), excavation, embankment, concrete sidewalk, curb & gutter, signalized intersection improvements, ITS, landscaping, water and sewer utility replacement and bridge and structure repair/rehabilitation. In addition, Mr. Lovencin has experience in the inspection of pile driving, drilled shaft installation and mat foundation.

PROJECT EXPERIENCE

SR 49 (US 129) - Mill & Resurface, From End of Curb and Gutter to Hilliard Avenue, FDOT District 2, Gilchrist Co., FL

CEI Project Engineer. Work consisted of mill and resurfacing, base work, shoulder treatment, highway signing, and other incidental construction.

SR 500 (US 27A) - Mill & Resurface, From NE 8th Street to CR 124, FDOT District 2, Levy Co., FL

CEI Project Engineer. Work consisted of mill and resurfacing, base work, shoulder treatment, drainage improvements, highway signing, and other incidental construction.

SR 5 (US 1) - Mill & Resurface, From Flagler County Line to SR 206, FDOT District 2, St. Johns Co., FL

CEI Project Engineer. Work consisted of mill and resurfacing, base work, shoulder treatment, drainage improvements, highway signing, guardrail, bridges, placement of a stress absorbing membrane (SAM) layer and other incidental construction.

Jacksonville Transportation Authority - FCF BRT Fiber Optic, Jacksonville, FL

CEI Project Engineer. Responsibilities included coordination of inspection personnel, invoicing and contract management. Work included MOT, ITS equipment installation, utility relocation, erosion control, directional bores, bridge mounted conduit, fiber optic cable, traffic controller units, cabinet connections, and signals.

SR 126 (Emerson Street) - Mill & Resurface, FDOT District 2,

Jacksonville, FL Contract Support Specialist. Work consisted of mill and resurfacing of parabolic crown roadway, curb and gutter, sidewalk, signal improvements. Project also included a JPA with JEA to install a new 12-inch water main from Spring Park Road to Sharon Terrace.



EDUCATION

PhD, Civil Engineering/ University of Florida, 2007

MS, Civil Engineering/ University of Florida, 1999

BS, Civil Engineering/ University of Florida, 1997

REGISTRATIONS

Professional Engineer, Florida, 77976, 2014

Professional Engineer, Alabama, 34394, 2014

YEARS OF EXPERIENCE 20 years

CONTACT INFORMATION wlovencin@nicnevol.com

3728 Philips Highway, Suite 11A Jacksonville, Florida 32207

Terracon Team Ragui W. Fahmy, Ph.D., P.E. Geotechnical/ Tunneling Engineering Chief

PROFESSIONAL EXPERIENCE

Ragui is a geotechnical engineer with more than 30 years of experience providing design and inspection of the geotechnical and structural elements of transportation projects, including tunnels, bridges, and roadways. He is familiar with all aspects of geotechnical engineering including the development of site investigation programs, evaluation of soil parameters using laboratory and field testing, and design and construction of various transportation and environmental structures. Ragui has extensive experience in the design and inspection of foundations, embankments, soil improvement methods, dams, and earth support systems. In addition, he is among the vanguard of his peers in adapting the leading geotechnical computer programs to analyze field conditions and develop effective approaches to construction challenges, including modifications to slope stability software to account for geosynthetics. A Ph.D. in Geotechnical Engineering, Ragui is a valued mentor to young engineers mastering such tools as finite element analysis as well as the FWHA, Winkler, and conventional rigid methods of analysis.

PROJECT EXPERIENCE

NYSDOT Van Wyck Expressway Capacity and Access to JFK Airport Improvements Design-Build

Supporting structural design for the New York State Department of Transportation (NYSDOT) design-build project to upgrade mobility and access on the Van Wyck Expressway (VWE) to and from JFK Airport in South Queens, NY. The \$880 million project will improve the operations and geometry of the ramps, modify or add new bridges to smooth traffic flow, and address structural deficiencies of the bridges within the project limits. Ragui is providing structural design and analysis of the foundation and retaining walls associated with the improvements. He is also preparing geotechnical reports.

NJDOT I-295/I-76/Route 42 Direct Connection

Established and evaluated the structural design of wall and bridge foundation alternatives for ramps C and D of the I-295/I-76/Route 42 Direct Connection project in Camden County, NJ, for the New Jersey Department of Transportation (NJDOT). Three support wall systems were considered as viable options to construct the ramp: secant pile walls, slurry walls, and a king pile/sheeting steel combined wall system. Interlocking king pipe piles were selected for one segment of the walls and secant pile walls were selected for all other segments.

NJTA Garden State Parkway Mainline Widening

Led geotechnical services for the widening and improvement of the northbound and southbound lanes of the Garden State Parkway between MP 83.5 and 88.5 in Ocean County, NJ, for the New Jersey Turnpike Authority (NJTA). The project widened the existing roadway's six lanes from 11 to 12 feet and expanded its 5-feet right and 2-feet left shoulders to 12-feet each. Ragui performed the geotechnical work for the replacement of eight mainline bridges, lengthening of two culverts, and construction of a retaining wall associated with the widening. The scope of the structural work also included wrap-around mechanically stabilized earth (MSE) walls for the integral bridge abutments and 13 new sign structures.



EDUCATION

Doctor of Philosophy (Ph.D.), Geotechnical Engineering; Strathclyde University, Scotland (1982)

Bachelor of Science, Civil Engineering; Cairo University, Egypt (1974)

REGISTRATIONS

Professional Engineer: New Jersey (2003/ #GE04435200/ exp. 4/30/2024)

Pennsylvania (1997/#PE-052298-E/exp. 9/30/2023)

YEARS OF EXPERIENCE 30 years

CONTACT INFORMATION Ragui.Fahmy@stvinc.com

5200 Belfort Pkwy #400 Jacksonville, Florida 32256

Terracon GIS Capabilities

Terracon uses the most advanced GIS software applications and database management tools in the industry to help us effectively manage, analyze, and visualize site data. We leverage the ArcGIS platform to provide a wide range of project solutions from creation of traditional map cartography products to web applications enabling efficient and sub-meter accurate data collection in the field. We are adept at developing complex relational database schemas to handle large amounts of information and integrating datasets from various sources. We use 3D geographic modeling applications, such as ESRI's Spatial Analysis extension, for complex sites requiring advanced data analysis and visualization. If needed, our staff can produce customized application solutions and is well versed in a variety of programming tools and languages including Python, C#, JavaScript, VB.NET, ArcGIS Server, ArcObjects, and XML. Regardless of the project scope, Terracon will strive to deliver intuitive and high quality technological products communicating project data to our client and other project stakeholders.



Geophysical Methods

When it comes to geophysical surveys, Terracon's non-intrusive methods complement our traditional methods, greatly improving site characterization and the opportunity for clients to save time and money.

Geophysical surveys can provide valuable subsurface information in remote and inaccessible areas, allowing our engineers to correlate subsurface data between borings. These methods can help reduce the risk of unknown and unexpected features on a project site before and during site operations. Our highly-qualified geophysicists routinely work with a broad spectrum of clients to provide necessary geophysical information for the exploration, planning, design, locating, and evaluation of a wide variety of project sites.

Terracon's primary geophysical methods (among others) include:

- Ground Penetrating Radar (GPR)
- Seismic (MASW, ReMi, refraction, reflection)
- Electrical Resistivity (2D/3D/4D tomography, Wenner, fall of potential)
- Electromagnetic Induction (EMI)
- · Borehole and Marine Geophysics
- Deep Foundation Testing (PDA, CSL, PIT, TIP)

Clients can quickly receive subsurface data safely and with little to no site disturbance using Terracon's extensive non-intrusive methods.

Some applications include:

- · Vital Infrastructure (pipelines, roadways, bridges, dams)
- Geotechnical Characterization (sinkholes, landslides, bedrock topography, seismic analysis, rippability)
- Buried Objects (utilities, storage tanks, debris, foundations)
- Non-Destructive Evaluations (concrete, voids, columns, beams)
- · Geological (faults, groundwater, karst)



Initial borings located shallow bedrock but a geophysical seismic refraction survey indicated a karst layer with open voids below thin cap-rock. Follow-up drilling confirmed the geophysical findings and the construction program was adjusted to account for unexpected voids beneath the planned building. Terracon's ability to identify the karts features ahead of time saved our client design and construction delays. These geophysical findings enabled us to help our client to mitigate future major ground settlement that would have damaged their new building.

Terracon's State & Local Procedures

Terracon has been performing special inspections and construction materials testing in the Jacksonville, Florida are for nearly 32 years. During that time, our firm has earned a reputation of providing quality work and experienced inspectors to all types of projects.

We have spent many years concentrating on special inspections and materials testing that require knowledge of local agency codes, as well as soil and asphalt inspection. We are fully certified (field and laboratory) and we perform all tests in accordance with local and national standards. Our laboratory is regularly audited and approved by FDOT, AASHTO, AMRL, CCRL and the U.S. Army Corps of Engineers. We have long-standing relationships with many cities and counties (listed below) and we have successfully worked on many of their state- and federally-funded projects.

- Nassau, County
- · Jacksonville, Florida
- Gainesville, Florida
- · Lake City, Florida
- St. Augustine, Florida
- Duval County
- Baker County
- Clay County
- St. Johns County
- Putnam County





Our local staff is dedicated to understanding state and federal prevailing wage laws to implement payroll and reporting procedures. Our local staff is also supported by a government compliance team and a legal support department at our corporate office, which ensures our employees are paid according to the law, certified payroll is followed, notice is provided, internal audits are performed, and procedures are followed. These resource teams are led by Monica Curls, our government compliance manager, who has more than 20 years of experience handling governmental aspects of our contracts and is in close contact with our office. She deals with regulatory compliance, program management, budgets, and finance.

Terracon's laboratory department manager, Chris Martin, Sr. develops and manages our in-house quality assurance program that aligns with local agency guidelines. We have developed a comprehensive quality control procedure manual to ensure the quality of our construction observation, materials testing, and engineering services.

Terracon's Jacksonville, Florida laboratory is fully accredited by Florida Department of Transportation and AASHTO to perform testing on HMA, aggregates, and concrete according to AASHTO testing standards. The laboratory is staffed with certified technicians with more than 30 years of combined experience in materials testing. Our testing capabilities include: HMA testing per Superpave, Hveem, and Marshall mix design methods; R-value of soils and aggregate base; aggregate quality testing for gradation, sand equivalency, cleanness value and durability; and compressive strength of concrete, mortar, and grout.



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4. Project Approach Project Understanding and Methodology

Project Approach

UNDERSTANDING THE SCOPE

Terracon reviewed and thoroughly understands the Scope of Services that may be assigned under the Continuing Contract for Professional Geotechnical and Materials Testing Services contract. We expect the workload and type of geotechnical task orders will be a function of Nassau County's needs and may vary through the duration of the contract. Based on our staff's experience with similar contracts, we anticipate the projects will commonly consist of pavement condition surveys, miscellaneous roadway improvements including signals and turn lanes, municipal county buildings, and site preparation/compaction/stability studies. Furthermore, our staff is prepared to assist Nassau County with project management and design consulting for on-going construction projects.

All work will be performed in accordance with current industry standards, including the most recent edition of the Florida Department of Transportation's Soils and Foundation Handbook, FHWA Checklist and Guidelines for Review of Geotechnical Reports, current edition of the Florida Building Code, as well as other applicable directives. Laboratory testing is to be performed in accordance with the applicable Florida Method, AASHTO, or ASTM standard.

Terracon is committed to being responsive, ensuring our employees go home safe every day, delivering quality services, effectively communicating and coordinating with Nassau County, ensuring that disruption to the public is minimized, meeting budgets and schedules, and avoiding conflicts of interest.

GEOTECHNICAL PROJECT APPROACH

This is a Task Work Order driven contract. Once we receive a project assignment, Terracon will review the assignment and consult Nassau County as needed on the scope and geotechnical challenges. Upon agreement and understanding of project objectives, Terracon will provide a written description of the work effort, including estimate of field and laboratory testing effort, staff hour estimates, and schedule.



Once the Task Work Order is authorized, we will update our proprietary GeoReport Compass Website with relevant scope, schedule, and project data. Compass is an online web portal which will include a list of all active contract assignments and schedules, as well as an archive of all completed tasks and Final Reports for easy access by all team members. As the

project progresses, we will update Compass with a schedule of activities, an interactive map of boring locations, test data, and plan sheets as they are developed.

Terracon begins each task by utilizing our unique, formal Pre-Task Planning procedure. During our Pre-Task Planning, Terracon utilizes client involved kickoff meetings to address any anticipated risks or challenges of the specific tasks involved with the project, recognizing that each project is unique. The Pre-Task Planning begins with safety and further addresses scheduling, site access, utility notifications, MOT, project milestones, and report turnaround. Upon completion of each assignment, draft reports will be submitted for comment and discussion prior to submitting the final report. Copies of draft and final reports will be maintained on Compass.

MATERIAL TESTING PROJECT APPROACH



To improve communication, efficiency and turnaround time of materials testing, we will utilize Terracon's state-of-the-art Construction Materials Engineering and Laboratory Management System (CMELMS). CMELMS was developed by Terracon software experts and material engineers to create a completely electronic program for every aspect of a materials testing project. This program allows us to establish lines of communication, create daily dispatch task orders for our technicians, track lab samples and results, submit sample results immediately when the tests are

performed, prevent calculation errors and re-writes, allow multiple levels of data and report reviews and distribute the sealed reports in real time to all parties. The system also helps create invoices based on time charged, established rates, and quantity of tests.

Project Approach

Once we have received the task order, we will incorporate it as a project into CMELMS. At this time, we will establish the Terracon Project Manager and Approved Project Reviewer, then the Construction Engineering Inspection (CEI) firm field contact, project administrator, Nassau County project manager, and any other materials and construction staff involved with the project. This allows any of our staff working on the project to have instant access to the contact information for each project.

When Nassau County or the CEI firm requires materials testing, they will contact our 24-hour dispatch hotline to schedule. The CMELMS dispatch tool will ensure the selected technician is immediately available and qualified to perform the testing and will instantly inform the technician via email of the task. This gives Terracon the ability to plan accordingly, increasing our availability and responsiveness, and potentially reducing time spent on a task.

Terracon recently developed a proprietary program to for live test results in the field called Device Magic. Device Magic is a mobile phone application that allows the technician to enter results in a standardized electronic form, capture GIS locations and photographs as well. The GIS locations will be overlayed onto the plans along with the location of the photographs in the final report. The data is transferred to CMELMS to be tracked and processed by the Terracon Project Manager.

CMELMS has a special laboratory management tool for concrete samples that can track any number of specimens and sets across multiple projects with any concrete break schedule required. Each day, the logged cylinders that are due for testing are included on the daily testing list. Terracon will review the cylinder list the day before and prioritize the Nassau County samples while ensuring the technician is available. Having all the cylinders on an accessible list with required strengths and other important information immediately available will reduce turnaround time. For earthworks and asphalt samples, CMELMS works similarly and will also allow us to plan accordingly, saving the same amount of time.

Once the sample testing is complete, our technicians will immediately log the data into CMELMS to ensure the calculations are correct and electronically mark it as 'finalized' for review by the Project Manager and APR. Both reviewers will have immediate access to the finalized report and will sign the report electronically. All CEI and Nassau County project members will then receive an email with the signed report immediately. This electronic system provides for multiple levels of review while removing the requirement for paperwork.

EMERGENCY APPROACH

For "Emergency" work (e.g. Sinkhole collapse), Terracon will provide a single call phone number that will be answered 24/7. Our direct number will connect to the on-call Terracon representative. Once the County contacts Terracon's representative and describes what the issue(s) and needs are, Terracon will begin mobilizing the appropriate personnel and equipment/tools to the site.

As a real life example our emergency response ability: The FDOT sent an email to all geotechnical/ materials continuing contracts for help with a sinkhole at 1:34 p.m. on a Monday. A depression had formed in a busy state road connecting residents to I-75. Terracon responded within 6 minutes to assist with a CPT rig and crew on site within 3.5 hours of the FDOT's initial request. Then, Terracon prepared/ coordinated an exploration package, emergency utility tickets, and provided the client with site coordination services.

In less than 5 hours, Terracon drillers pushed 3 cones to depths ranging from 56 to 66 feet (which included 2 hours of down time for lane closures). The FDOT's District Geotechnical Engineer worked with our crew during the investigation to determine if the roadway needed to be officially closed for safety reasons and repair. Then the last sounding was sent to our CADD Manager shortly after 10:00 p.m. and all logs were converted and provided to FDOT in less than 30 minutes. Finally, we responded the following day with additional rig support because of the FDOT's own equipment failures and we were able to provide support for the grouting operations as well.

Project Approach

PRICING TOOL

Prior to submitting a cost estimate for each project, Terracon utilizes our proprietary "Pricing Tool" to help create a budget. Pricing Tool is constantly updated with the most up-to-date rates for each contract and allows us to create a "real-time" fee estimate. Pricing Tool also uses a task-based system to calculate how much time each project will take to deliver and helps ensure that each project is delivered on-budget.









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ALDI - Yulee, FL Materials Testing Services Terracon Consultants, Inc. FOOD MAR

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5. References

References Amelia Island Parkway

Nassau County, Florida

The project consisted of a geotechnical investigation to obtain information about the subsurface conditions along the project alignment and provided geotechincal engineering recommendations for design and construction of the proposed trail.

CLIENT:

STV, Inc. 5200 Belfort Pkwy #400 Jacksonville, FL 32256

CONTACT:

Keith Jackson (904) 265-7724 keith.jackson@stvinc.com

SERVICES: Geotechnical

Geotechnica

FEE: \$23,000

DATE: 2020-2022

Clay County Animal Shelter

Clay County, Florida

The project consisted of a geotechnical investigation to obtain information about the subsurface conditions along the project alignment and provided geotechincal engineering recommendations for design and construction of the proposed animal shelter.

CLIENT:

MLM- Martin Architects, Inc. 668 Orlando Avenue #107 Maitland, Florida 32751

CONTACT: Brenda Nalley (407) 897-6764 bnalley@mlm-martin.com

SERVICES: Geotechnical

FEE: \$13,000

DATE: 6/2022-8/2022





References Clay County Fire Station No. 24

Clay County, Florida

The project consisted of a geotechnical investigation to obtain information about the subsurface conditions along the project alignment and provided geotechincal engineering recommendations for design and construction of the proposed Fire Station.

CLIENT:

Dasher Hurst Architects 1022 Park Street #208 Jacksonville, Florida 32204

CONTACT:

Tom Hurst (904) 425-1189 Thurst@dasherhurst.com

SERVICES:

Geotechnical

FEE: \$12,500

DATE: 11/2022-Current

FDOT District Wide Material Testing

District 2, Florida

The past four and three current continuing contracts includes laboratory testing, asphalt plant inspections and deep foundation services for the FDOT in Northeast Florida. Testing includes proctors, LBRs, sieve analysis, organics, corrosives, Atterberg limits, concrete compressive strength and specialty soils testing for the laboratory. Deep foundations services include pile dynamic analysis (PDA), cross-hole section logging and pile integrity testing.

CLIENT:

Florida Department of Transportation 1109 S Marion Ave Lake City, Florida 32025

CONTACT:

Sally Morgan (386) 961-7764 sally.morgan@dot.state.fl.us

SERVICES: Materials

FEE: \$11,500,000

DATE: 8/2022-Current



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References New River Regional Landfill

Union County, Florida

The two projects included the closure of several completed cells and the expansion of a new landfill cell for the municipal landfill. Testing included field nuclear density test, gradations for rock and soils, permeability testing, soil contamination tests, concrete and asphalt testing.

CLIENT:

New River Solid waste Association NE 157th Street Raiford, Florida 32083

CONTACT:

Parry Kent (386) 431-1000 pkent@nrswa.org

SERVICES: Materials

FEE: \$58,000

DATE: 2019-2021



Police Station and EOC Facility

Duval County, Florida

The project included the construction of a two-story police facility consisting of CMU walls, driven pile foundations, asphalt and concrete paving, stormwater structures, utilities, and steel joists. Testing included proctors, LBRs, sieves analysis, pile driving analysis (PDA), gradations, field densities, concrete testing, asphalt testing, welding inspections, reinforcing steel inspections, masonry inspections and grout testing.

CLIENT:

The Clement Group 923 South Perry Street Montgomery, Alabama 36104

CONTACT: Frank Spirato (904) 253-0958 frank.spirato@construction-mail.com

SERVICES: Materials

FEE: \$133,500

DATE: 2021-1/2023



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Publix Canopy- Yulee, FL Materials Testing Services Terracon Consultants, Inc.

FOOD & PHARMACY

6. Current Workload

Current Workload

| NAME | PRIME OR SUB? | COMPLETION |
|---|---------------|------------|
| CSX Nahunta Connection- Nahunta, GA | Subconsultant | 4/2023 |
| Radiant (Santa Fe Power Plant) | Subconsultant | 7/2023 |
| State Fishery Building- Welaka, FL | Subconsultant | 9/2023 |
| IKEA Jacksonville Canopy | Prime | 3/2023 |
| Love's Travel Stop - Brunswick, GA | Subconsultant | 3/2023 |
| Chick-fil-A, Butler Point | Prime | 3/2023 |
| Whataburger, Southside Blvd | Prime | 5/2023 |
| FEMA Berms Indian Pass | Subconsultant | 7/2023 |
| Mr. Clean Car Wash- Orange Park, FL | Subconsultant | 6/2023 |
| Chick-fil-A - Gainesville, FL | Prime | 5/2023 |
| Four Seasons Hotel and Corporate Headquarters (Shipyards) | Prime | 5/2026 |
| Target - Jacksonville, FL | Prime | 5/2023 |
| Whataburger- Jacksonville, FL | Prime | 5/2023 |
| Whaterburger- St. Augustine, FL | Prime | 5/2023 |
| FDOT CAA19- SR312 from SR207 | Prime | 7/2023 |
| One Riverside Apartments, Threshold | Prime | 5/2024 |
| One Riverside Apartments, Material Testing | Prime | 5/2024 |
| Walmart | Subconsultant | 3/2023 |
| FP&L Hayfield Substation | Subconsultant | 8/2023 |
| Wellington Way Apartment | Subconsultant | 8/2023 |
| Duke, Ft. White to Perry | Subconsultant | 4/2023 |
| FDOT CAA19- SR200 from Stratton Road | Prime | 9/2023 |
| SR312 Extension from SR207 to SR16 | Subconsultant | 12/2024 |
| Flagler College Dormitory Evaluation | Subconsultant | 4/2023 |
| Loves Travel Stop- Jacksonville, FL | Subconsultant | 3/2023 |
| HCA Middleburg FSER | Subconsultant | 3/2023 |
| FDOT CAA19- SR5 at Oyster Creek Bridge | Prime | 11/2023 |
| WM SUP 1090-245- Jacksonville, FL | Prime | 4/2023 |
| Jacksonville Jaguars New Training Center | Prime | 5/2023 |
| FDOT CAA19- SR134 from I-295 to SR21 | Prime | 8/2023 |
| FDOT CAA19- SR A1A | Prime | 11/2023 |
| NAS JAX, Training Building | Subconsultant | 5/2023 |
| FDOT CAA19- SR103 from SR208 to SR228 | Prime | 9/2023 |
| Amelia Island Pkwy | Subconsultant | 3/2023 |
| Police Station & EOC Facility- Blount Island, FL | Subconsultant | 3/2023 |
| Targeting and Surveillance Facility | Subconsultant | 3/2023 |
| Kings Bay Dry Dock | Subconsultant | 5/2024 |
| WestRock - Fernandina Beach, FL | Subconsultant | 4/2023 |
| Eagle LNG Plant | Subconsultant | 7/2023 |
| Kinlaw Tie | Subconsultant | 6/2023 |
| Laboratory Testing Services | Subconsultant | 9/2023 |
| Newberry- Trenton, FL | Subconsultant | 5/2023 |

Current Workload

| NAME | PRIME OR SUB? | COMPLETION |
|--|---------------|------------|
| Chick-fil-A - Oakleaf Town Center, FL | Prime | 3/2023 |
| Broson Solar Transmission Line | Subconsultant | 4/2023 |
| GE Unison Nitrogen Tank | Subconsultant | 2/2023 |
| Episcopal High School Pile Load Testing | Subconsultant | 2/2023 |
| PDA- CR18 from SR100 to SE 36th Ave | Subconsultant | 5/2023 |
| Margaritaville Riverwalk & Marina- Melbourne, FL | Subconsultant | 5/2023 |
| Bickley Substation | Prime | 4/2023 |
| Normans Food Store- Jacksonville, FL | Subconsultant | 5/2023 |
| High Hat | Subconsultant | 6/2023 |
| Target Canopy Project | Prime | 7/2023 |
| Home Depot- Gainesville, FL | Prime | 11/2023 |
| Home Depot- Fleming Island, FL | Prime | 4/2023 |
| Home Depot- Yulee, FL | Prime | 6/2023 |
| Dome HSE- Yulee, FL | Subconsultant | 6/2023 |
| SR5 RRR Design with STV | Subconsultant | 10/2023 |
| Phillips Forest, Solar | Subconsultant | 3/2023 |
| Sundance Solar Power Project | Subconsultant | 3/2023 |
| Proposed 250-Foot Self-Support Tower | Subconsultant | 3/2023 |
| SR25 from I-75 to CR 252 RRR | Subconsultant | 2/2023 |
| SE Toyota- Blount Island, FL | Subconsultant | 3/2023 |
| North Wetland Mitigation- Kings Bay, GA | Subconsultant | 8/2023 |
| Canaveral Port Authority | Subconsultant | 6/2023 |
| USACE 2022 Oregon Inlet NC | Subconsultant | 7/2023 |
| Middleburg East Self Storage | Subconsultant | 8/2023 |
| Woodbine Job | Subconsultant | 5/2023 |



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Rayonier Headquarters- Yulee, FL Geotechnical Services Terracon Consultants, Inc.

7. Technology

Having the ability to know what is happening on your project site in real-time means you and your project team are always well-informed. Through portals and platforms, information is displayed on a visually intuitive and interactive dashboard, allowing project stakeholders to view data almost instantaneously. This insight into the project throughout each day makes it easier than ever before to resolve issues on the spot instead of having to wait for the report to be delivered at the end of the project or after the field team has left the site. With data at your fingertips, real-time delivery gives you access to information from anywhere to make decisions faster, ultimately saving you time and money.

Real-time delivery keeps your data alive. We can send and receive data through mobile devices and sensors embedded in everyday objects. These platforms take information from what used to be a verbal conversation and a field report sent days after the data was collected, to immediate access to key information including test status, progress, and outcomes from anywhere and at any time.



We have worked to seamlessly integrate real-time delivery into our systems and platforms to help streamline your projects. When information is integrated into a Terracon internal system, the information populates throughout each system and maximizes the power and accessibility of your data for smart, timely decision-making. We customize your client portal based on your priorities, risk management needs, and project scope of work. Before your portal is activated, we assemble a client kick-off meeting to engage with your team and conduct training on how they can use the portal to access and filter data, retrieve, or share reports and other information, and collaborate with our team in real-time. We provide access to whoever needs to retrieve the data and in the different formats needed.

Real-time delivery also enhances project quality control and efficiency. Our innovative and proprietary tools give you the ability to see if an area is or is not ready for construction and expose any outstanding deviations. Real-time delivery uses data to help decrease the number of design changes needed and enable more of a collaborative, decision-making approach so you make informed decisions earlier in the site development process, which leads to significant savings over the project's lifespan.

STREAMLINING SITE SELECTION

Stage1: What we know can help you make faster, more informed, site selection, preliminary design, and budget decisions.

HOW DOES REMOTE SITE INVESTIGATION WORK?

- Combines more than 55 years of Terracon's historical site data, 760+ environmental and geotechnical publicly available data sources, and the local experience from more than 450 geotechnical professionals located in more than 175 offices, allowing us to anticipate conditions.
- Draws upon our more than 10,000 Phase 1 Environmental Site Investigations completed each year and expertise operating the largest exploration fleet in the country.
- Begins your site research using our Client Portal before you even order a Stage1. When you're ready, simply select the services you need, and our team will activate your project the same day.
- Creates an interactive, map-based, easy-to-read report delivered by your dedicated client service manager, giving you a Smart Work Plan to quickly advance into project planning and preliminary designs and budgets.

WHY TERRACON'S STAGE1 SERVICE?

- Fast and affordable site considerations without requiring physical access to the site.
- Our innovative Client Portal unlocks powerful, site-specific data and anticipated subsurface conditions.
- Allows you to easily compare multiple sites.
- Establishes a partnership with your local Terracon professional, moving seamlessly into traditional due diligence and geotechnical exploration.
- Provides you a greater understanding of potential issues and ability to move forward with confidence in a team that knows how to interpret potential obstacles and overcome them.

GEOREPORT/COMPASS



Compass is Terracon's latest client interfacing tool and elevates the way we do business. Within Terracon Compass, you can access your projects and their associated data, including environmental and geotechnical projects. When you open a materials project within Compass, you will see your materials tests and observations placed on a map. This geographic

reference allows you to find your information by the "where", rather than the "when." Other features of Compass include:

- · Filters for Date Performed, Service Type and Test Result Status
- Deviation or Non-Conformance Summary: Image overlays to reference multiple plan pages to your test results
- Map layer options: Test results are inserted into Compass as soon as the report has been reviewed and distributed. It becomes easier than ever to view and close deviations with an option to display within a map while also showing them in a table format.



We're streamlining site selection into three key areas: GEOTECHNICAL
SUBSURFACE ENVIRONMENTAL
NATURAL AND CULTURAL RESOURCES*

WHAT IS SEAMLESS CONSTRUCTED DELIVERY?

Seamless Constructed Delivery is how we perform our construction materials testing and inspection services every day. We continuously apply new processes, methodologies, and techniques to solve project challenges and meet your needs. Guided by our employee owners' experience and technical capabilities, we have spent decades adapting our project delivery process, as such, Seamless Constructed Delivery, into four main components: Responsiveness, Performance, Quality, and Delivery.





RESPONSIVENESS

Before the Project

Communication

Communication is essential to successful project delivery. Our communication and coordination begin the moment we learn about the project and continues through project delivery. Expectations are established so we can anticipate needs and quickly respond, especially during critical junctures and milestones in the construction schedule.

At the proposal and project setup phase, our professionals explore the needs of a project so that all parties concur on:

- budgets,
- scope of work,
- scheduling needs,
- safety requirements,
- communication channels and frequency, and
- understanding of challenges.

By gaining a deep understanding of these items, we can anticipate the needs of the project team and proactively develop solutions which will help keep your project moving forward.

Budgeting

Developed by Terracon professionals, our Pricing enables our project managers, estimators, and subject matter experts to work together on delivering consistent pricing, improving manpower forecasting, and drive on-time project delivery of our deliverables. The pricing tool is pre-loaded with all rates and laboratory costs, allowing our project managers to develop an accurate budget via a simple schedule and quantities.

During the Project

Project Initiation

The very first and most important task is to have a kick-off meeting with all critical staff and you. At this meeting, all staff will be informed of safety concerns and mitigations, scope, schedule, available budget, and communication protocols. Safety discussions do not stop at the kick-off meeting. They continue daily through our pre-task planning discussions. Our Incident and Injury-FreeTM1 (IIF[™]) safety culture is strong and woven into all tasks we conduct inside the office, our laboratories, and on jobsites. Safety awareness and injury prevention helps keep everyone safe.

Behind the scenes, our project managers have setup the project in our proprietary project management and delivery system. Project specifications, manpower needs, budgets, and report distribution lists are setup and ready to start dispatching our field personnel to the project site with all the appropriate information and data collection reports.

Dispatching

Terracon has a robust system that only allows certified field staff to be dispatched to your jobsite for the days' testing needs. When our



dispatchers or project managers receive a call from a contractor or client, the system can automatically ensure that we are appropriately assigning certified personnel for the work to be performed. The inspector will receive a calendar invite with all the appropriate information needed to perform the task.

Subconsultant Utilization

Our priority is to build the best team internally and externally to deliver a successful project. A successful project also incorporates experienced and effective leadership. Our goal is to create a collaborative team to deliver a successful project, while leaving a positive and lasting impact on our communities and partners.

Occasionally there are times we may need to partner with outside subconsultants to meet specific project requirements. We hold our subcontractors to the same standards that we hold ourselves including safety and quality. In addition, we have an exceptional record of meeting and exceeding diverse business supplier goals on a wide variety of project sizes. We take great pride in our efforts to promote diverse business participation whenever possible. We partner with small, minority, and/or woman-owned business team members whom we know and trust.



PERFORMANCE

The day begins with our technicians and inspectors reviewing the weather forecast and confirming with several project team contacts that the day's activities are on schedule, which greatly helps to reduce unnecessary trips to project sites. Once staff members have verified all planned activities, vehicles are loaded and ready to proceed safely. Upon arriving on-site, our technicians carefully review slated activities and traffic patterns to identify safe places to park and verify that our pre-task

planning remains current. When safely parked, we notify your site representative that we are on site and ready to perform our work.

Our technicians utilize the latest technology in performing their work. We utilize one of our applications on our mobile devices to collect data from our day's activities. These enhanced and robust applications allow us to collect and enter our test and inspection data throughout the day and submit the information digitally. Beyond simplifying the data collection process, the apps offer more advantages. Our applications are tied to our phone's GPS, which references the plan set in our systems. This means our technicians can see where they are standing on the plans when on site. By utilizing our mobile device's GPS, we eliminate misplaced tests in the field and geolocate all testing and inspection data within our deliverables. This geographic information greatly enhances methods for us to deliver data to you.



Our seamless data collection apps offer the following advantages:

- · Form-based data collection no missing information or lost papers
- Safe-Right procedures embedded in the forms
- Geographic information embedded in the report
- · Pictures taken on-site are automatically tied to the report
- · Dramatically reduced report turn-around times as complete reports can be submitted in the field
- Technicians always know where they are on the plan no misplaced tests
- · Test standards embedded in the forms
- Site maps embedded in the forms



Technology is an excellent tool; however, our tools are only as good as those using them, and none so vital as our technicians' communication in the field. Our field personnel know the importance of reporting deviations and failed tests as quickly as possible to limit the amount of non-conforming material being placed. We also make it a point to coordinate with site leaders before leaving the job site for the day. In this way, we do not miss unplanned site operations that may need attention. You can count on our field personnel to be proactive in their communications with you.



QUALITY

Quality Leadership and Training

We engage and collaborate with a cross-functional matrix of management roles at the executive, senior, and operations levels as well as with service line leaders to spearhead certain aspects of our quality program. This structure provides specific quality leadership and processes to address the unique challenges of each service we provide.

Quality oversight includes the selection, vetting, approval, and ongoing evaluation of qualified Authorized Project Reviewers (APRs) who have the responsibility to oversee quality for every project. We regularly evaluate our quality program components at the company and office levels through committees staffed by both executive-level managers and service line leaders to balance operational perspectives with specific service line considerations. Each committee reviews representative project work samples associated with each individual project reviewer to assess the reviewer's effectiveness.

Through training, evaluation, and external certifications and licensing, our staff demonstrates they are qualified and experienced to perform assigned tasks in a manner consistent with applicable standards, regulations, policies, and procedures.

Role of the APRs and SMEs

Project managers and APRs, together with the necessary project management and technical expertise, collaborate to achieve quality objectives at critical project junctures. Depending on size and complexity, some projects may be subject to additional oversight and expert review.

Without exception, every project is assigned an APR who collaborates with the project manager on quality and technical objectives for the duration of the project. The APR is engaged at the proposal stage and remains on the project through execution and closeout.

The APR plays a leading role in our quality program, highlighted by the following four primary areas of project responsibility:

- Quality Oversight: The APR reviews the proposal and is involved at the kick-off meeting, and at major milestones, stages, and critical junctures providing direction and insight to guide the project to its successful completion.
- Coaching: The APR coaches and advises the project manager on various aspects of the project emphasizing quality, risk, on-time delivery, budget, scope of work, and other client expectations.
- Risk Management: The APR guides the project team to properly assess project-specific risk.



• Safety Awareness: The APR raises awareness at the project level by communicating with the team to focus attention on their own personal safety and on the safety of all project team members.

It is true that every once in a while, the technical needs of an aspect of a project can exceed the skills of our Project Manager. When this situation arises, Terracon has pre-identified and organized into categories our subject matter experts (SME). These SME's are available at a moment's notice to assist in resolving any project issue or challenge

Technical Training



Having industry-specific training is critical to providing quality services on our projects. Our field personnel include professional engineers and geologists, engineering technicians and construction inspectors who hold certifications with national agencies such as the American Concrete Institute (ACI), International Code Council (ICC), National Institute for

Certification in Engineering Technologies (NICET), American Welding Society (AWS), Post-Tensioning Institute (PTI), Occupational Safety & Health Administration (OSHA) as well as many state-specific certifications and site-specific training requirements.

In addition to external training, Terracon encourages, supports, and provides training and continuing education for all our employees. Terracon University is an internal training and education resource providing many relevant areas of study and formats for learning including live virtual sessions to recorded video training. We offer courses in safety, engineering, project delivery, industry applications, client development and marketing, as well as personal and professional development. We can track each employee's learning path as well as ensure, if job related certificates and licenses are required, they receive information about renewals in a timely manner.

Training is not just limited to technicians and inspectors though. Training is also required for our project managers. Each project manager at Terracon is required to pass a rigorous five-part training course before managing a single project. Training courses focus on budget management and projections, schedule management and proactive communications. A Terracon project manager always knows where he or she stands within the budget and the percent completion of the project. We will proactively share this information with you on a regular basis based on your preferences.



DELIVERY

On-time project and data delivery is an essential goal of Terracon's, and what we strive for on every project we undertake. Our Seamless Constructed Delivery system results from that goal and so much more. To better serve you, Terracon has developed multiple methods to get you the information you need in a timely manner. Our delivery and data systems can be combined to deliver the experience and knowledge you need to make your project successful.

Deviation Log

The deviation log is a list of non-conforming items noted by our field or laboratory personnel during an observation or test. The purpose of the log is to document the decisions made and actions taken by the contractor to address non-compliant structural components.

Our employee owners strive to help the project team identify potential deviations before they happen. If an item can be quickly addressed by the contractor, the need to add an item to the log may not be necessary. Our field personnel will communicate any discrepancies found at the time of inspection. Timely communication is key during this process.

Our proprietary project delivery system can report and track non-conforming items the same day. Items placed on the deviation log will remain open until an official resolution is agreed upon by all parties. We understand the importance of tracking and communicating these items as soon as possible so your projects can continue to move forward with minimal delay, saving you time and money.

Consulting

Although we have developed many methods for you to receive and review your information, none of these technologies and tools are as important as simply having a conversation about your test result or report. All information in the world written in a report does little good if you don't know what it means or how to utilize it, which is why we call first whenever there may be concern about a report's contents. At Terracon, we don't just report it and forget it. We strive to be your partner working together through the entire process—planning and solutions.

Email

Our automated quality system automatically submits reports to the email address of your choosing as soon as our Project Manager or Approved Project Reviewer (APR) completes their review. We know how important it is for you to have timely report availability notifications, and to have reports "in hand" as soon as possible.

TARGETID

TARGETID is our premier materials testing data delivery service. With actual CAD drawings inserted into our GIS system, you will be able to interact with your information in a way like never before.

With real-time capabilities, you see the moment the test or inspection has begun in the field, meaning that you will always have the most up-to-date information. TARGETID also offers almost unlimited flexibility with items to map, statistical tools to keep on your dashboard, and filtering by elevations in high rises and large cuts and fills. The flexibility and intuitive capabilities of TARGETID are ideal for "big data" projects and will most assuredly make your construction manager's life much simpler.



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Wildlight Development- Yulee, FL Geotechnical Services Terracon Consultants, Inc.

8. Hourly Rate Schedule

Hourly Rate Schedule

Terracon understands price cannot and will not be a determining factor in the selection of the firm. Terracon will submit a hourly rate schedule if/when requested by Nassau County.

mage by <u>UF Health via</u> G

UF Health Lift Station- Yulee, FL Geotechnical Services Terracon Consultants, Inc.

9. Attachments Administrative Information

| | NASSAU COUNTY BOARD OF COUNTY COMMISSIONI Procurement Department 96135 Nassau Place, Suite 2 | ERS |
|----------------|---|---|
| 4 OLD WE TAUST | Yulee, Florida 32097 Ph: 904-530-6040 | REMINDER: This addendum must be acknowledged, signed and returned with your proposal. Failure to comply |
| TO: | All Proposers | may result in disqualification of your |
| FROM: | Thomas O'Brien, Procurement Specialist | submittal. |
| SUBJECT: | Addendum #1 | |
| | Request For Qualification Number NC23-01 | 6 |
| | Continuing Contract for Professional Gen | otechnical and Material Testing |
| | Services | |
| DATE: | January 27, 2023 | |

This addendum is hereby incorporated into the solicitation documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to, and shall take precedence over, the original documents.

Question and Answer:

1. There is no Attachment D included in the Bid Packet. Is that something that will be added as an Addendum, or should we plan to not include it? Thank you.

Answer: See the attached Revised Table of Contents and Attachments.

2. In regard to Tab 6- Current Workload: Do you want to see all the projects we are working on in Nassau County or all the projects our office is working on as a whole? Is there a specific way you would like it shown or presented?

Answer: We would like to see total current workload to verify capacity to accommodate work as assigned if selected.

3. Regarding tab 5- References: Would you like the reference to be displayed on the form number 5. Work experience or is this form different?

Answer: Tab 5 and Attachment "G", per the attached Revised Attachments, are separate and both should be completed and submitted.

Clarification:

The Table of Contents included the Statement of No Bid as Attachment "B", this was removed, and the Attachments were re-lettered to match the Table of Contents. Please use the Revised Attachments below for submission.

The solicitation due date and opening time remains: February 16, 2023 at 10:00 AM

Attachment: Revised Table of Contents and Attachments