

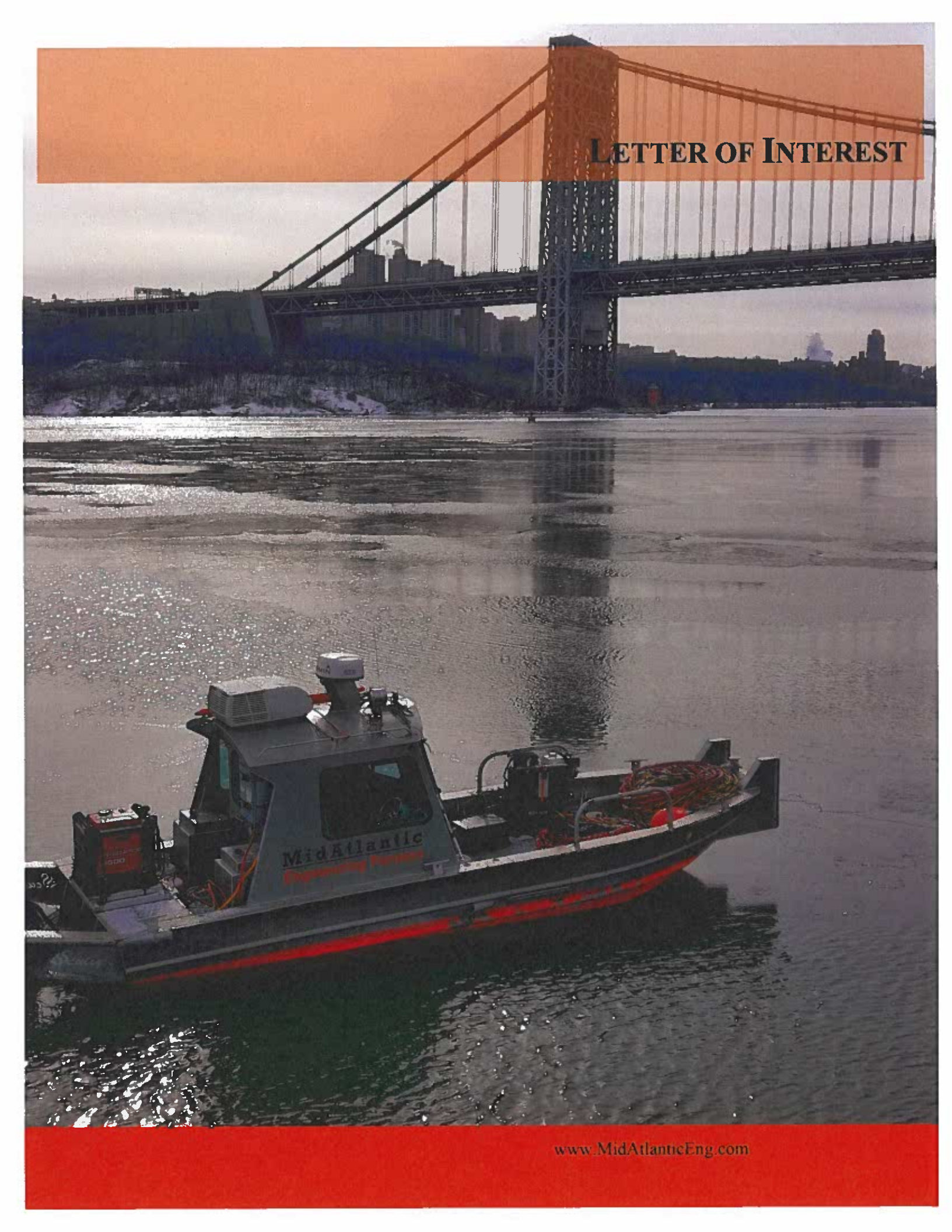
Technical Proposal for:  
Underwater Inspection of Town Pier  
Holden Beach, NC  
June 10, 2026



**MidAtlantic**  
**Engineering Partners**

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## LETTER OF INTEREST

[www.MidAtlanticEng.com](http://www.MidAtlanticEng.com)

## Executive Summary

In response to the Request for Qualification (RFQ) and the project needs, MidAtlantic Engineering Partners (MidAtlantic) has assembled a highly experienced and capable Project Team. This team has significant experience with Underwater Inspection, Waterfront Design, Rehabilitation, Waterfront Permitting, Cost Estimating and Timber Material On-Site Testing. Our team has successfully advanced projects throughout the United States and the Caribbean Islands of similar size and scope.

MidAtlantic understands that the purpose of this project is to obtain reliable information regarding the condition of the underwater timber substructure elements of the existing pier to support future repair, rehabilitation, and replacement decisions. Our team is uniquely qualified to perform this work, having completed numerous above-water and underwater inspections of timber, concrete, and steel waterfront structures, including piers, wharves, bulkheads, ferry landings, and marine terminals. Our personnel include Professional Engineer Divers trained in accordance with industry-recognized inspection procedures and experienced in performing Level I, Level II, and Level III underwater inspections of waterfront structures.

MidAtlantic understands the Town seeks an underwater inspection of ten (10) selected bents consisting of twenty (20) timber piles, including Level II inspections of all selected piles and Level III inspections of twenty percent (20%) of the water-based piles. The resulting report will provide repair recommendations, maintenance planning considerations, and planning-level opinions of probable cost to support future repair versus replacement decisions.

MidAtlantic routinely develops prioritized maintenance and capital improvement programs for waterfront facilities to assist owners in budgeting, asset management, and long-term planning efforts.

MidAtlantic offers a comprehensive suite of engineering services that can support the Town throughout future phases of the project. Our in-house capabilities include structural engineering, waterfront rehabilitation design, replacement design, environmental permitting, construction administration, and cost estimating. This integrated approach allows our team to not only identify deficiencies and assess current conditions, but also develop practical repair strategies, rehabilitation alternatives, replacement concepts, and associated cost estimates that support informed decision-making.

W. Stuart Lewis, PE  
Partner

  
MidAtlantic

## **Proven Record of Success**

Over the past eight years, MidAtlantic has successfully performed underwater inspections, engineering design, permitting, and construction support services for waterfront facilities throughout the United States.

MidAtlantic has previously performed underwater inspections of the Holden Beach Pier and is familiar with the facility's structural configuration, observed deterioration mechanisms, and site conditions. This familiarity allows our team to efficiently perform the proposed investigation and provide meaningful recommendations to support the Town's repair and replacement decision-making process.

## **Site-Civil & Waterfront Focused**

Our core service group is focused on Site-Civil Design and Waterfront Infrastructure projects. Our engineers have dedicated their careers to the inspection, evaluation, design, rehabilitation, and construction of waterfront facilities. By combining practical field experience with engineering expertise, MidAtlantic provides clients with technically sound solutions that support both immediate project needs and long-term asset management objectives.



**PROJECT DETAILS**

**MidAtlantic**  
**Engineering Partners**



## **Project Approach**

MidAtlantic understands the Town of Holden Beach is seeking to obtain reliable information regarding the condition of the existing timber pier substructure to support future repair, rehabilitation, and replacement decisions. The proposed approach combines experienced Professional Engineer Divers, proven underwater inspection methodologies, and practical waterfront engineering experience to provide the Town with a comprehensive evaluation of the underwater structural elements of the pier.

The information collected during the field investigation will be evaluated by MidAtlantic's engineering team and incorporated into a detailed inspection report documenting existing conditions, structural deficiencies, repair recommendations, and planning-level cost estimates. The resulting report will provide the Town with information necessary to make informed decisions regarding future investments in the facility.

This approach has been prepared by the key project staff who will be directly involved in the project. Therefore, our team will have the momentum to begin work immediately and get the project off to a successful start.

## **Scope Items – Pier Condition Assessment**

### **Task 1 – Project Kick-Off**

At the start of the project, MidAtlantic will conduct a kickoff meeting with representatives of the Town and any other interested parties. The purpose of this meeting is to meet all personnel involved with the project and to determine the final product desired. At this meeting our Team, along with the Project Stakeholders, will develop a project vision. This vision will help guide the project to a successful completion. Project risk factors will also be identified as will a preferred communications method between the client and MidAtlantic. All these items will help to bring the Client, MidAtlantic, and the other interested groups together to help keep the project on schedule, within budget, and in accordance with the Vision.

MidAtlantic will review available drawings, previous inspection reports, photographs, and other pertinent project documentation to develop an understanding of the structure and its known deficiencies. This review will assist the project team in planning the field investigation and identifying representative inspection locations.

Upon completion of this task, MidAtlantic will have established a clear understanding of the project objectives, available information, reporting requirements, and project schedule.



## **Task 2 – Site Investigation**

MidAtlantic is familiar with the Pier and the project site, having previously performed a topside and underwater inspection of the pier. MidAtlantic will perform a comprehensive underwater condition assessment of the selected pier substructure elements in accordance with the requirements of the RFQ. The purpose of the investigation is to document the condition of representative timber piles, identify structural deficiencies, evaluate deterioration mechanisms, and provide the Town with engineering information necessary to support future repair, rehabilitation, or replacement planning.

Primary components of the site investigation include:

- Existing Waterfront Structure Inventory and Condition Assessment
- Level II Underwater Inspection
- Level III Underwater Inspection
- Timber Resistance Drill Testing (Performed by our Sub-consultant)

### **Task 2.1 – Existing Waterfront Structure Inventory and Condition Assessment**

MidAtlantic will mobilize a 3-person Engineer-Dive inspection team to perform the work. The team will consist of a Professional Engineer Diver, Engineer Diver, and ADCI Dive Supervisor to perform the inspection using company owned surface supplied dive equipment.

The focus of the investigation will be to document and verify the existing condition of representative timber substructure elements, identify signs of deterioration and structural distress, obtain measurements and photographic documentation, and collect information necessary to support the engineering evaluation and cost estimating effort.

Following the completion of the inspection, MidAtlantic will meet with stakeholders to present a PowerPoint presentation to review the inspection findings.

The goal of this investigation is:

1. Document existing underwater structural conditions.
2. Identify visible signs of deterioration and damage.
3. Verify existing pile configurations and structural details.
4. Identify conditions affecting the serviceability of the structure.
5. Establish representative baseline conditions for engineering evaluation.

## **Task 2.2 – Level II Underwater Inspection**

MidAtlantic will perform Level II underwater inspections of ten (10) selected bents consisting of two (2) timber piles per bent, for a total of twenty (20) piles. The selected piles will be representative of the existing structure and will be chosen in accordance with the requirements of the RFQ.

The inspection will consist of visual and tactile examinations extending from the high-water mark to the mudline. Divers will systematically evaluate each pile to identify signs of deterioration and assess the overall condition of the timber substructure.

Particular attention will be given to identifying:

- Marine borer activity
- Abrasion and wear
- Section loss
- Checking and splitting
- Impact damage
- Previous repairs
- Hardware deterioration
- Other conditions affecting structural performance

Field observations will be documented through written notes, measurements, sketches, and photographic documentation, as site conditions permit. Deficiencies identified during the inspection will be referenced to their respective bent and pile locations for incorporation into the engineering evaluation and final report.

## **Task 2.3 – Level III Underwater Inspection**

As part of the underwater inspection program, MidAtlantic will perform Level III inspections on twenty percent (20%) of the water-based piles in accordance with the requirements of the RFQ.

Marine growth will be removed as necessary to facilitate detailed inspections. A ten-inch-high inspection band extending around approximately seventy-five percent (75%) of the pile circumference will be cleaned at the waterline, mid-depth, and mudline elevations.

Following cleaning operations, detailed examinations will be performed to identify timber deterioration, marine borer damage, section loss, checking, splitting, and other structural deficiencies that may not be readily apparent during routine visual inspections.

At the waterline inspection locations, additional testing will be performed utilizing an IML Resi PD-500 timber resistance drill, to evaluate internal timber conditions and identify potential areas of concealed decay. The results of the testing will be documented and incorporated into the engineering evaluation.

### **Task 3 – Engineering Evaluation and Cost Estimates**

Upon completion of the field investigation, MidAtlantic will review and evaluate the inspection findings to determine the overall condition of the inspected timber piles and identify deterioration trends, common deficiencies, and areas requiring repair or further evaluation.

The inspection findings will be assessed to determine their impact on the serviceability and long-term performance of the structure. Based upon the observed conditions, MidAtlantic will develop recommendations regarding repair priorities and future rehabilitation or replacement considerations.

MidAtlantic will prepare planning-level opinions of probable cost for recommended repairs associated with the inspected substructure elements. The cost estimates will provide the Town with information necessary to evaluate future investment strategies and assist with repair versus replacement decision-making.

Leveraging MidAtlantic's extensive experience in waterfront inspections, structural rehabilitation, permitting, and design, recommendations will be developed with consideration for constructability, service life, and future project implementation.



## **Task 4 – Inspection Report**

MidAtlantic will prepare a comprehensive underwater inspection report documenting the results of the investigation and engineering evaluation.

The report is anticipated to include:

- Purpose and Scope of Inspection
- Inspection Methodology
- Existing Conditions
- Summary of Inspection Findings
- Engineering Evaluation
- Repair Recommendations
- Opinion of Probable Cost
- Above and Below Water Photographs
- Bent Elevation Drawings Identifying Deficiencies

The final report will provide the Town with a clear understanding of the condition of the inspected timber piles and will serve as a valuable planning tool for future repair, rehabilitation, replacement, permitting, and design efforts associated with the pier facility.

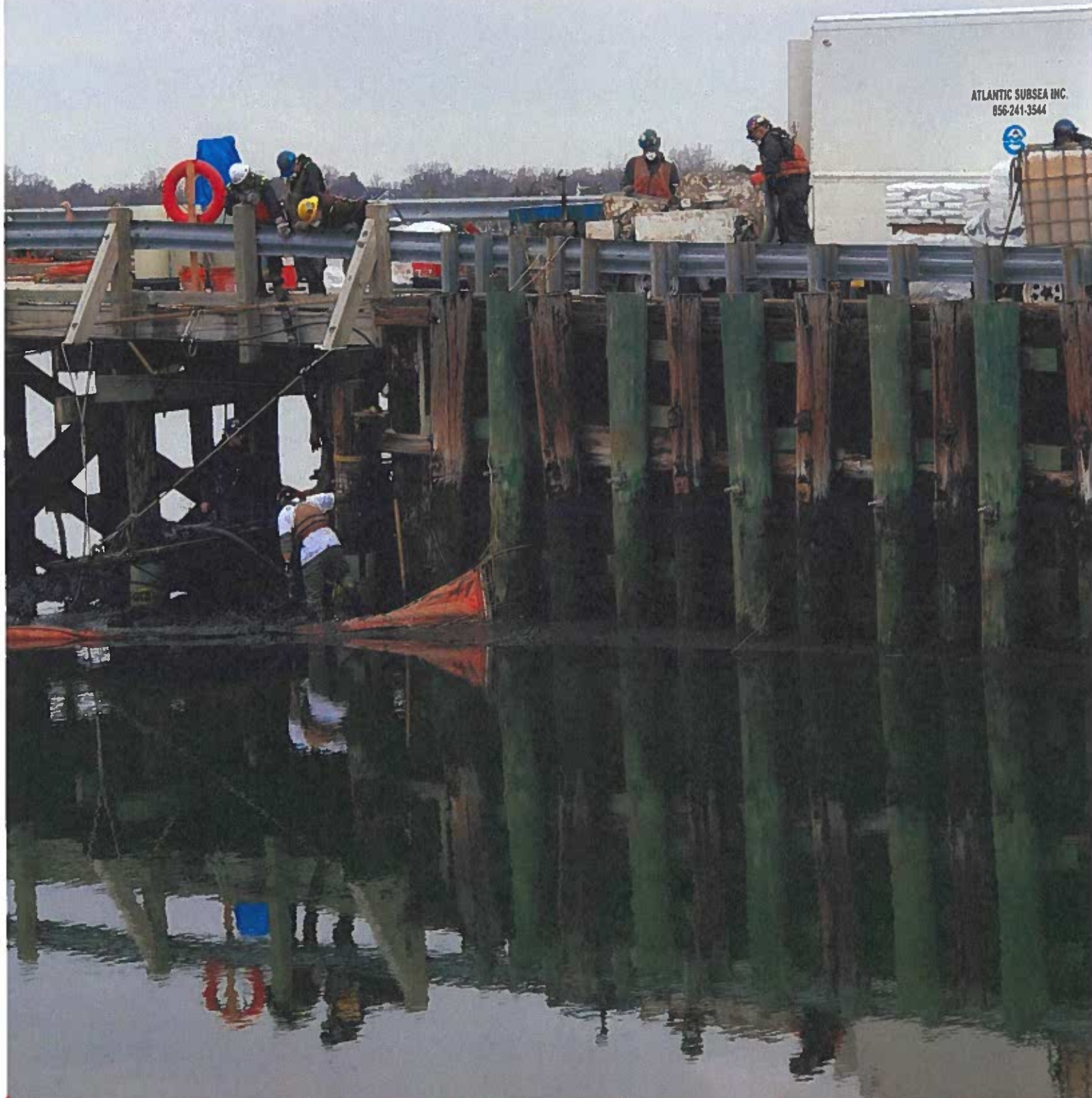


## Schedule

Our Team recognizes the importance of working closely with our clients, helping to establish and fully understand the specific needs and timing of projects. We know from experience that the key to successful project executions having a clear understanding of the root causes of potential delays and implementing proactive strategies to mitigate their effects when possible. The most common cause of schedule delays is due to breakdown in communication between project stakeholders and the design team. Recognizing this, the MidAtlantic Project Manager is fully dedicated to clearly communicating and emphasizing key decision points in the critical path schedule during the project, thus avoiding a significant cumulative delay effect. MidAtlantic anticipates completing the underwater inspection, engineering evaluation, cost estimating, and final inspection report within forty-five (45) calendar days following Notice to Proceed, subject to weather conditions and site accessibility.

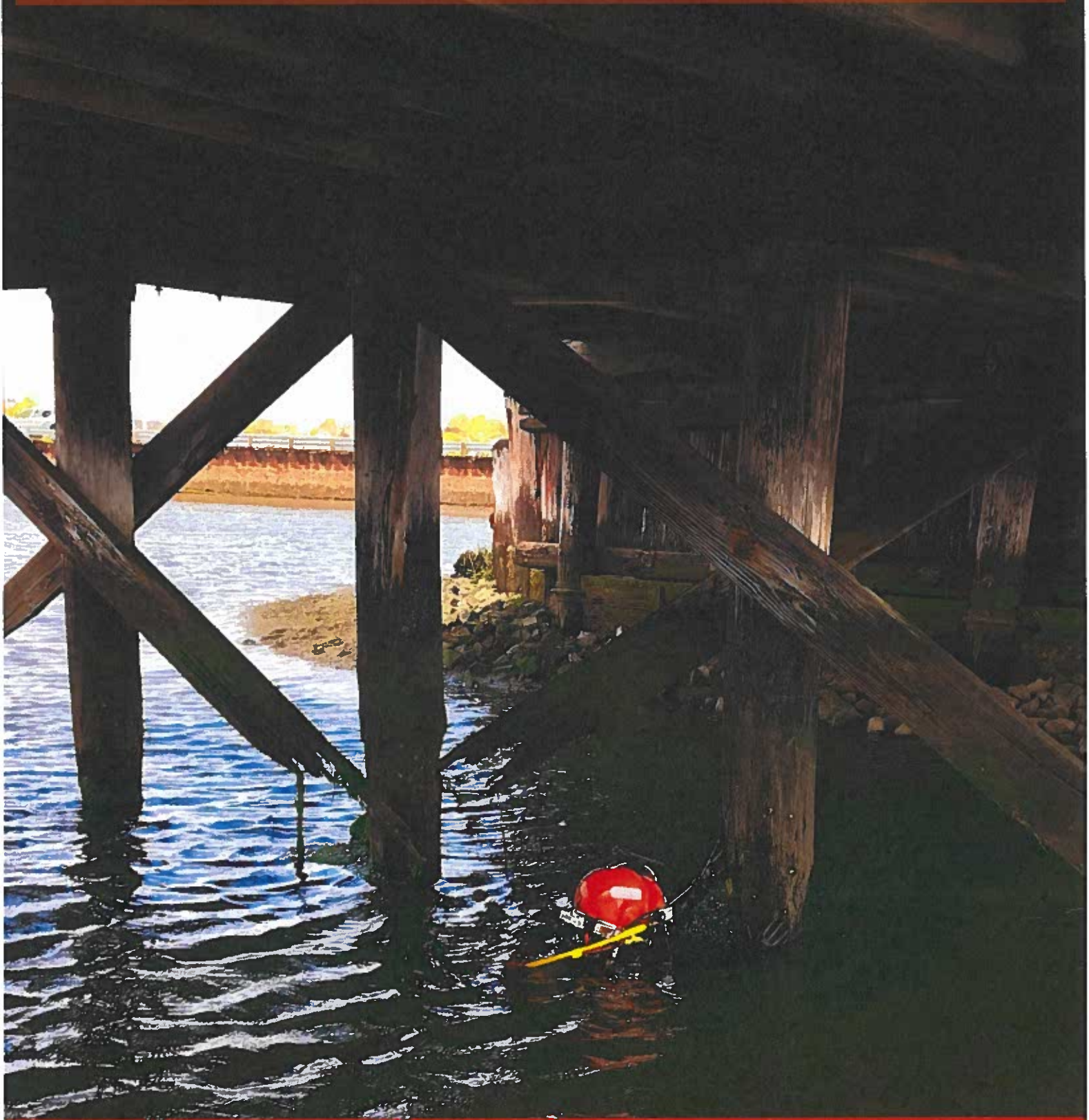


## FIRM OVERVIEW



|                               |                                                                                                    |
|-------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Firm Name</b>              | MidAtlantic Engineering Partners                                                                   |
| <b>Years in Business</b>      | 16                                                                                                 |
| <b>Core Services</b>          | Waterfront Engineering, Underwater Inspection, Structural Engineering, Permitting, Cost Estimating |
| <b>Professional Engineers</b> | 12                                                                                                 |
| <b>Engineer Divers</b>        | 5                                                                                                  |
| <b>Total Staff</b>            | 63                                                                                                 |
| <b>Office Locations</b>       | NJ, PA, NY Metro & Jersey Shore                                                                    |
| <b>Service Area</b>           | Nationwide & International                                                                         |
| <b>Relevant Experience</b>    | Waterfront Facilities, Piers, Bulkheads, Shoreline Stabilization, Marine Structures                |

## FIRM PROFILES



# Mid Atlantic

*Integrity. Expertise. Ingenuity.*

## A FULL SERVICE ENGINEERING & ARCHITECTURAL FIRM

*Providing our clients with a  
comprehensive suite of  
consulting services.*



### WHO WE ARE

Our team of professionals bring to bear experience covering an expansive breadth of consulting services over the past two decades. This knowledge covers the full spectrum of real estate uses and the land development industry with projects both small and large within areas such as healthcare, residential, mixed-use, industrial, and institutional within both urban and suburban settings. We are dedicated to providing a superior service.



### OUR PHILOSOPHY

With today's latest technology in the hands of a core group of the best professionals, we can deliver a superior product for the biggest and most challenging design, consulting, and construction programs while doing so effectively and efficiently.



### WHY PARTNER WITH US

With today's latest technology in the hands of the best professionals, we can deliver a superior product for the biggest and most challenging design, consulting, and construction programs effectively and efficiently. We believe in taking an active role in every job we touch. It is an essential aspect in ensuring the high level of support that we provide across the broad breadth of services necessary in support of engineering architecture, permitting, surveying, and construction management needs for our clients.

## OUR SERVICES



Environmental Engineering



Marine Engineering



Civil Engineering



Architecture



Survey

## CONTACT US



[midatlanticeng.com](http://midatlanticeng.com)



321 W. State Street, Media, PA 19063



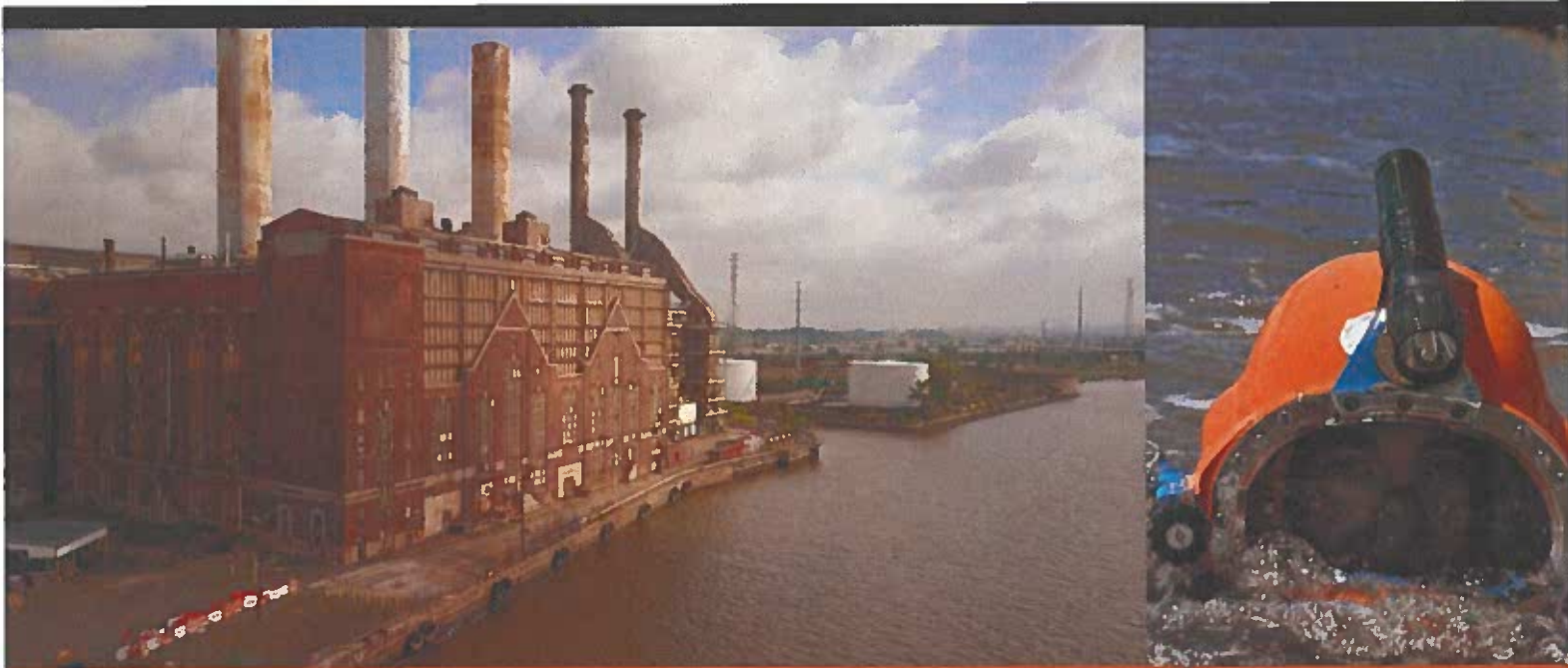
2026B Briggs Road, Suite 300, Mt. Laurel Township, NJ 08054



26 Washington Street, 3rd Floor, Morristown, NJ 07960



1971 Highway 34, Suite 201, Wall Township, NJ 07719



MidAtlantic is a specialty consulting firm providing expert port, waterfront and coastal engineering services for government, commercial, industrial and energy clients throughout the MidAtlantic Region of the United States. The firm provides unique expertise for solving complex problems in coastal and offshore environments.

Professional services include coastal engineering, engineering planning, inspection & rehabilitation of existing structures, design & planning of new marine structures, dredged material management design, environmental permitting, and construction administration.

Through a singular focus on projects in the marine environment and the maintenance of offices throughout the MidAtlantic region, we can effectively draw upon the skills and experience of our professional staff to provide successful, innovative engineering solutions to our clients.



**PE Engineer Dive Inspections**



**Waterfront Design and Permitting**



**Dredge Permitting**



**Maintenance Condition Assessment**



**Marinas**



**Army Corps Permitting**



**Structural / Integrity Assessment**



**Port Facilities / Terminals**



**Contractor Oversight**



**Shore Line Stability  
(Bulkheads/Revetment)**

## FIRM OVERVIEW

Wood Science Consulting provides expert consulting and advisory services in wood science and technology. The firm specializes in the inspection, testing, assessment, and nondestructive evaluation of wood and wood-based materials used across construction, engineering, and design. Clients benefit from authoritative, science-based guidance backed by more than 20 years of hands-on field and laboratory experience.

## PRINCIPAL

### Matthew Anderson, Wood Scientist

Matthew Anderson is the founder and principal of Wood Science Consulting. He holds a B.S. in Construction Management and Wood Products Engineering and an M.S. in Wood Science and Engineering. With over 20 years of experience, Matthew has worked on projects nationally and internationally, earning a reputation for delivering clear, reliable technical guidance on complex wood-related issues.

#### Education

M.S. Wood Science & Engineering  
B.S. Construction Management &  
Wood Products Engineering

#### Experience

20+ years, national & international

## SERVICES

### Inspection & Evaluation

Visual grading, species identification, service life assessment of lumber, timbers, glulam members, decking, poles, and pilings.

### Nondestructive Testing

Resistograph and other NDE methods for piles, utility poles, timbers, glulam members, and fire-damaged elements.

### Laboratory & Testing

Destructive testing, wood decay assessment, species determination, microbiological analyses, and preservative retention.

### Legal & Insurance

Expert witness testimony, forensic investigation, litigation support for product failures, decay claims, and structural issues.

## CLIENT TYPES

- Engineering and architectural firms
- Government agencies and public administrations
- Contractors and builders
- Homeowners and associations
- Insurance companies
- Law firms
- Utility and infrastructure owners
- Historic preservation and cultural institutions

## PROFESSIONAL AFFILIATIONS

- American Society for Testing and Materials (ASTM)
- American Wood Protection Association (AWPA)
- Forest Products Society (FPS)
- American Wood Council (AWC)
- Society of Wood Science and Technology (SWST)
- American Society of Civil Engineers (ASCE)

## SELECTED PROJECTS

- Resistograph testing, Bridge No. 1901000, MD-364 over Dividing Creek, Pocomoke City, MD
- Structural assessment of floor elements, 2162-2164 3rd Avenue, New York, NY
- Assessment of roof elements, Old Dallas High School, Dallas, TX
- Structural assessment of timber trusses, Highland Presbyterian Church, Louisville, KY
- Evaluation of Naval Research Laboratory T-Head Pier 86, Washington, D.C.
- Assessment of arch glulam beams, CBEI Building, Philadelphia, PA
- Evaluation of timber piles, Port Covington, Baltimore, MD (destructive testing and design values)
- Resistograph assessment, St. Peter's Church, Pittsburgh, PA (termite damage)
- Assessment of timber pilings, Military Ocean Terminal, Concord, CA (marine borer damage)
- Evaluation of timber cores, Consolidated Edison Hudson Avenue Generating Station
- Bowstring truss assessment, Hangar D, Westchester County Airport
- Structural assessment of timber elements, One Eleven Whiskey Row, Louisville, KY

## RELEVANT PROJECTS



HOLDEN BEACH PIER  
ASCE Routine  
Inspection

Holden, NC

# MidAtlantic Engineering Partners

## The Project

Year of Completion: September 2022

Client: Geosyntec

## Scope of Services

Underwater Inspection and Evaluation

Structural Assessments

Integrity Evaluation

## Role

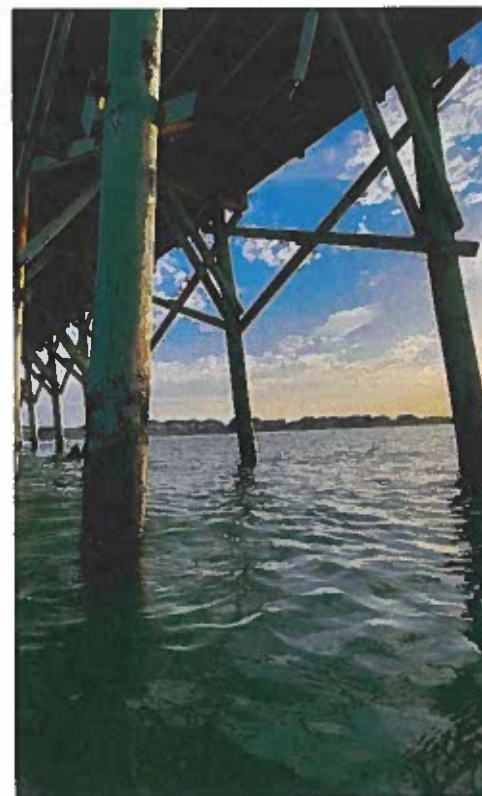
Sub-Consultant



MidAtlantic Engineering Partners conducted a comprehensive two-phase structural inspection of the Holden Beach Fishing Pier, a timber marine structure located on the Atlantic coastline of Holden Beach, North Carolina. The inspection was performed to assess the condition of the pier's timber pile foundation system and identify structural deficiencies requiring remediation.

The inspection was carried out across two field mobilizations. The initial assessment in September 2021 documented conditions at the landward bents, identifying heavy rot and section loss at several older piles. The follow-up inspection in April 2022 extended coverage through the full length of the pier to Bent 52, documenting pile splitting, fracture cracks, and non-bearing conditions in several critical elements.

Following the field investigation, MidAtlantic generated a detailed inspection report documenting element-by-element condition ratings, circumference measurements, and observed deficiencies. The report includes a summary of conditions, structural findings, and prioritized recommendations to guide the pier owner's maintenance and repair program.



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Suite 300  
Mt. Laurel Twp., NJ 08691  
609.910.4450

Jersey Shore  
1971 Highway 34  
Suite 201  
Wall Twp., NJ 07719  
732.722.5899

NY/NJ Metro  
26 Washington Street  
3rd Floor  
Morristown, NJ 07960  
973.289.1116

Pennsylvania  
321 W. State Street  
Media, PA 19063  
610.565.0020

KEARNY POINT  
SOUTH BASIN  
SHORELINE REHABILITATION

KEARNY, NJ

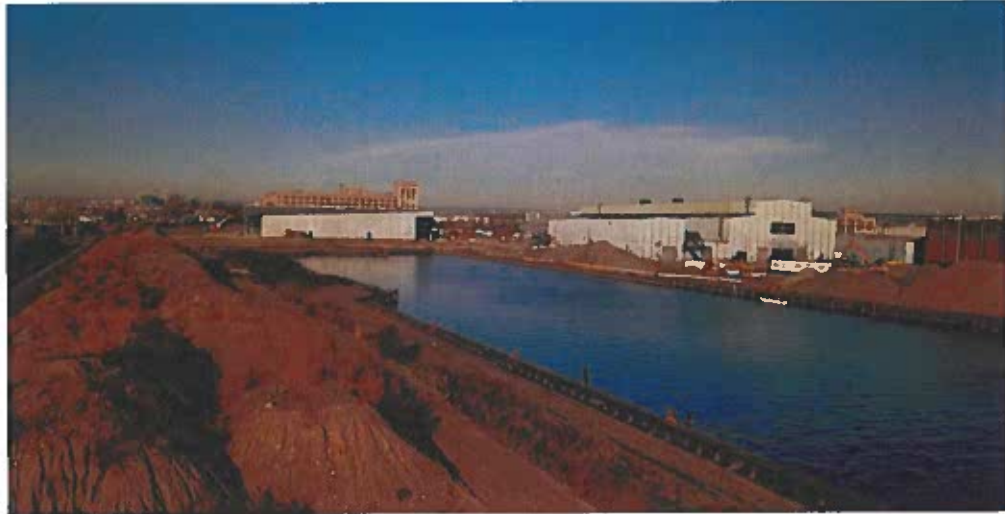
# MidAtlantic Engineering Partners

## The Project

Year of Completion: 2018  
Client: Hugo Neu Corporation

## Services

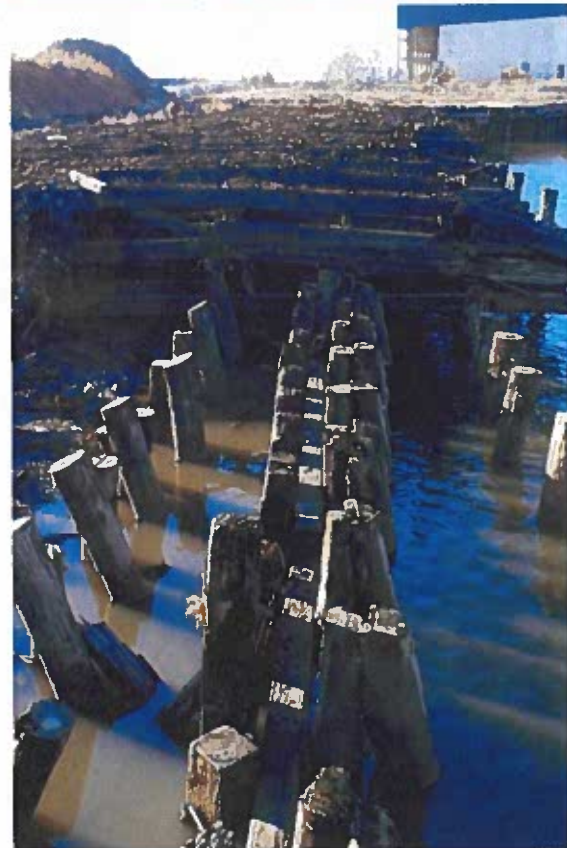
Engineering Investigation  
Repair Recommendations  
Environmental Permitting  
Shoreline Stabilization  
Coastal Engineering



MidAtlantic was responsible for performing underwater and topside inspection of the Hugo Neu facility to assess the condition of the deteriorated timber piers, wharves, bulkhead and shoreline stabilization. This included extraction of timber cores to assess deterioration within the timber piles.

Following the inspection, MidAtlantic developed a proposed repair plan entailing removal and rehabilitation of the existing structural elements to make the structures safe, with the addition of a riprap revetment to stabilize the shoreline below.

MidAtlantic worked with Hugo Neu to create a site plan that suited their project budget. MidAtlantic also prepared and submitted a CAFRA Individual Permit to the New Jersey Department of Environmental Protection. This included a Land Use Regulation Permit (LURP) and Waterfront Development Permit.



Stuart Lewis, PE  
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PSEG -  
ROUTINE INSPECTION

KEARNY, NJ  
UNDERWATER SERVICES

# MidAtlantic Engineering Partners

## The Project

Year of Completion: June 2017  
Client: Public Service Energy Group  
Engineering Cost: \$19,850

## Services

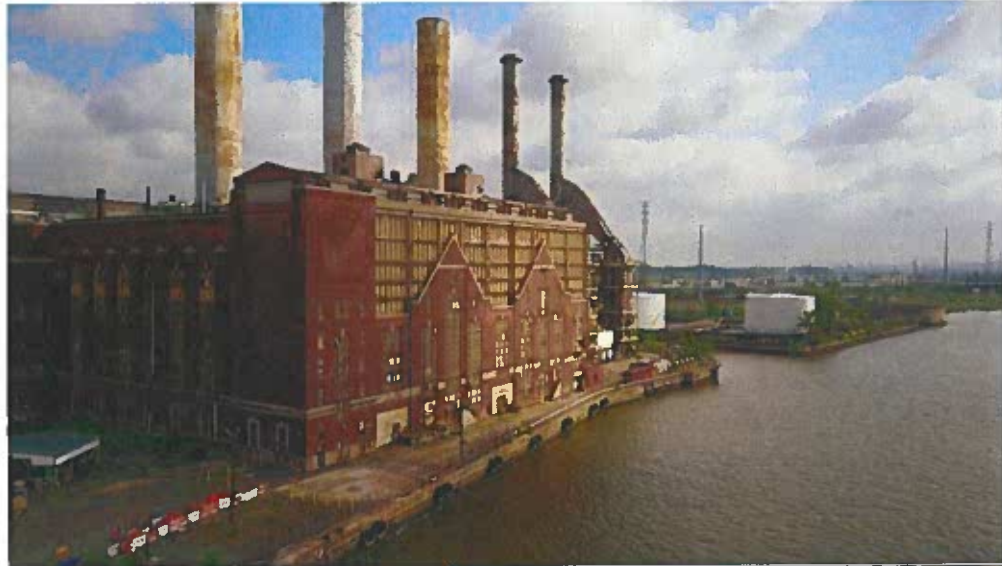
Underwater Inspection and Evaluation  
Structural Assessments  
Integrity Evaluation

## Client

Public Service Energy Group (PSEG)  
Todd W. Simo  
(908) 625-7123  
19 Stern Ave  
Weehawken, NJ 07086

## Role

Prime Consultant



MidAtlantic was contracted directly with PSEG to perform a routine level above and underwater modified routine inspection at the Kearny Sub-Station. The Project involved Level I and Level II inspection efforts on timber piles and concrete underdeck elements of a low-level relieving platform.

All diving operations was performed in accordance ADCI OSHA Regulations Standards – 29 CFR 1910 T 1910.424. Diving was staged from our self contained dive vessel.

Following completion of the field investigation, MidAtlantic generated a letter report for the facility which document the results of the field investigation. The report include a description of the structures inspected, a summary of observed conditions, conclusions and recommendations with cost estimates.

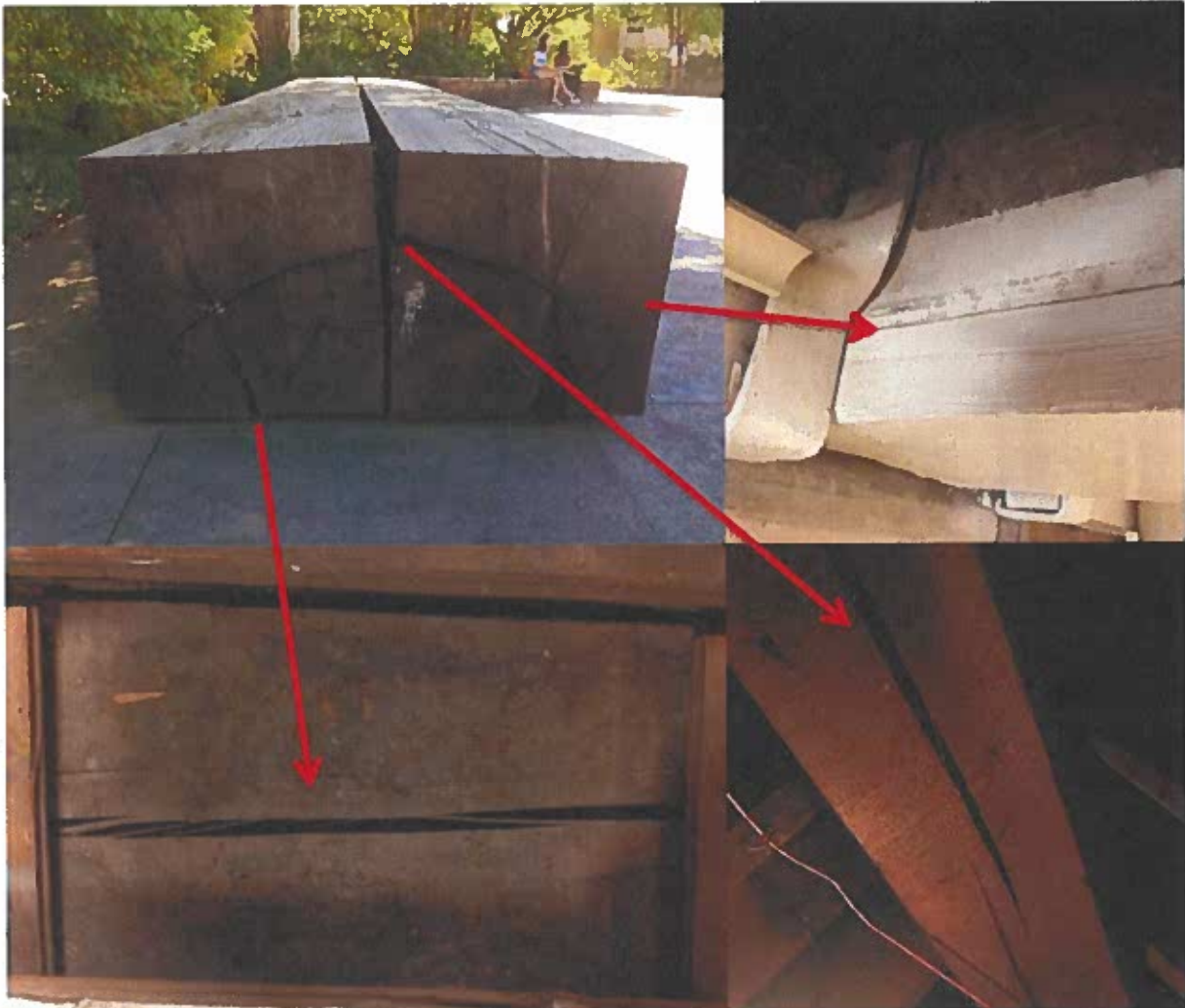


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# Checks & Splits in Lumber and Timbers

In-Situ Assessment | Structural Evaluation | Visual Grading



Timber bench ends displaying normal seasoning checks — multiple check types visible and annotated for in-situ assessment.

## OVERVIEW

Checks and splits in structural timbers are among the most frequently misunderstood observations during building assessments. Wood Science Consulting was engaged to evaluate in-situ lumber and timbers in an occupied structure where large splits and checks had raised concerns among the design team.

During the seasoning process, differential shrinkage in wood — tangential versus radial — generates internal stresses that commonly produce checks and splits. Because the weakest mechanical property in wood is tension

## PROJECT FACTS

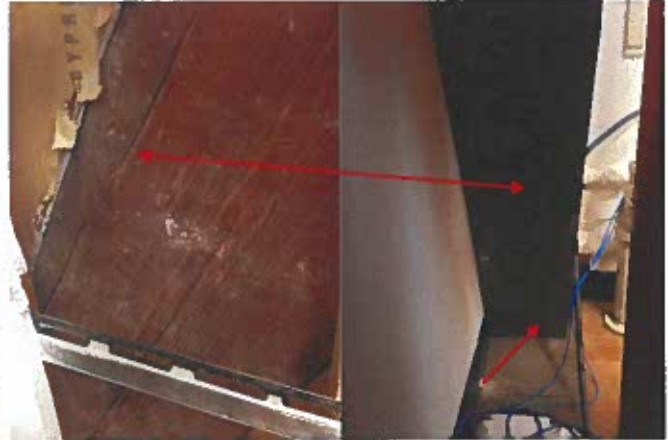
|                 |                            |
|-----------------|----------------------------|
| <b>Service</b>  | Structural Assessment      |
| <b>Scope</b>    | In-Situ Visual Grading     |
| <b>Elements</b> | Timbers & Dimension Lumber |
| <b>Method</b>   | Visual + Resistograph NDE  |
| <b>Standard</b> | ASTM / Grading Rules       |

perpendicular to the grain, drying stresses manifest as radial separations across the annual rings. These characteristics are anticipated in design: they are incorporated into the derivation of allowable design values and explicitly accounted for in NHLA, SPIB, and WCLIB grading rules.

***As wood dries, it becomes stronger — and seasoning checks are already accounted for in the derivation of allowable design values.***



*Steep slope of grain revealed by a large split — this timber was classified non-structural with a partial in-situ failure.*



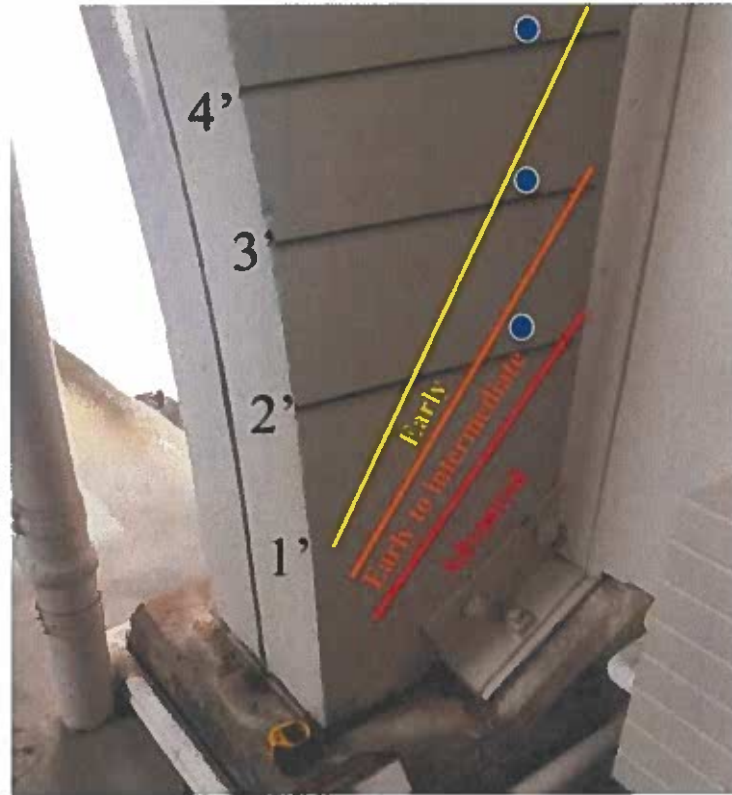
*Multi-room inspection: large checks observed from one room, smaller from adjacent — Resistograph confirmed structural adequacy.*

#### KEY FINDINGS & OUTCOMES

- ✓ Normal checks and splits confirmed present and accounted for under applicable grading rules — no reduction in design values required.
- ✓ One timber identified with steep slope of grain and partial failure — classified non-structural and flagged for remediation.
- ✓ Resistograph resistance drilling confirmed sound wood cross-sections in all load-bearing timbers despite visible surface checks.
- ✓ Engineering team provided with clear grading documentation to support structural repair decisions and owner communication.

## Glulam Arch Assessment with Microbiological Analyses

Resistograph NDE | Increment Core Extraction | Decay Mapping



Glulam arch heel showing advanced decay in the bottom 12 inches. Blue markers indicate the three increment core locations extracted for microbiological analysis at 2ft, 3ft, and 4ft heights.

### OVERVIEW

Wood Science Consulting was retained to assess the condition of glulam arch heels in a renovated historic structure with an active moisture problem. The project required precise delineation of the extent of wood decay to enable accurate engineering repair recommendations — a task demanding more than Resistograph drilling alone could provide.

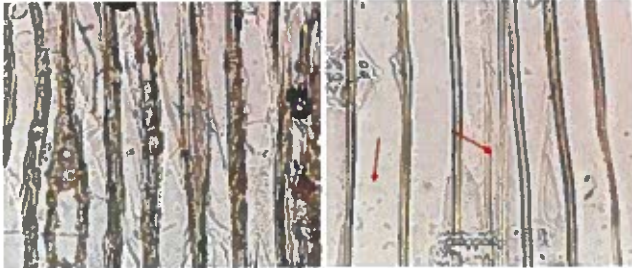
While the Resistograph PD Series is highly effective at detecting voids and intermediate-to-advanced decay, it cannot reliably detect incipient or early-stage decay. At wood weight losses as low as 2–10%, bending strength reductions of 70–75% are possible. At the 2ft height, Resistograph profiles appeared consistent with sound wood — but that conclusion was premature. Increment cores were extracted at 2ft, 3ft, and 4ft heights and subjected

### PROJECT FACTS

|                |                                           |
|----------------|-------------------------------------------|
| <b>Service</b> | NDE + Lab Analysis                        |
| <b>Element</b> | Glulam Arch Heels                         |
| <b>Issue</b>   | Active Moisture Intrusion                 |
| <b>Methods</b> | Resistograph, Increment Cores, Microscopy |
| <b>Outcome</b> | Precise Decay Mapping for Repair          |

to microbiological analysis under a light microscope.

***At only 2% wood weight loss, bending strength can be reduced by up to 75% — making microbiological verification essential alongside Resistograph data.***



*Left: Dense network of decay hyphae filling every wood cell at 2ft height. Right: Markedly reduced hyphae levels at 3ft height — critical for defining the repair boundary.*

#### ANALYTICAL APPROACH

A systematic grid was marked across each arch heel at 1ft, 2ft, 3ft, and 4ft heights. Moisture content was recorded at each grid point. Resistograph charts were collected and analyzed for amplitude consistency. Three increment cores were extracted from representative heights and microscopically sectioned along their full length.

Results at 1ft were unambiguous: high moisture content and advanced decay in all drilling charts. At 2ft, charts appeared sound — but microbiological analysis revealed a continuous network of early-stage hyphae throughout the cross-section. At 3ft, decay was incipient and limited in depth. At 4ft, no evidence of decay was found.

#### KEY FINDINGS & OUTCOMES

- ✓ Advanced decay confirmed at 1ft height in all tested arch heels — consistent with elevated moisture content readings.
- ✓ Early-to-intermediate decay detected throughout the 2ft cross-section via microscopy, despite Resistograph charts indicating apparent soundness.
- ✓ Sound wood confirmed at 4ft height — providing a reliable upper repair boundary for the structural engineer.
- ✓ Precise decay map enabled targeted engineering repair, avoiding over-removal of sound material and reducing remediation cost.

## Nondestructive Evaluation Using Resistograph Drilling

Timber Structures | Utility Poles | Marine Pilings | Foundation Elements



*Resistograph PD Series field deployment — resistance drilling of structural timber elements for relative density profiling and internal condition assessment.*

### OVERVIEW

The Resistograph, or resistance drill, is among the most effective nondestructive tools available for assessing the internal condition of structural wood. Wood Science Consulting has deployed the Resistograph for over 15 years across a wide range of structure types, including historic mill buildings, covered bridges, utility poles, marine and foundation pilings, parks and challenge course structures, and trees.

The instrument uses a 1/8-inch diameter needle advancing through the full cross-section of a member. Resistance encountered by the needle is continuously plotted as a relative density profile. Regions of reduced or absent resistance indicate hidden voids, decay, or insect attack. Consistent, high-amplitude profiles indicate sound wood. The technique leaves virtually no damage — the 1/4-inch bore hole is filled with a treated wood plug.

### PROJECT FACTS

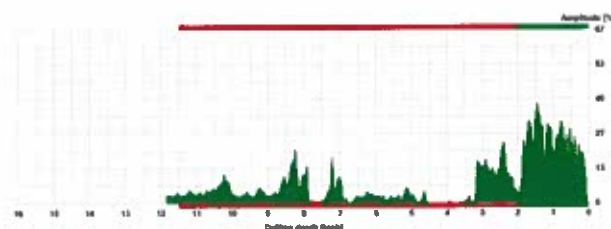
|                    |                             |
|--------------------|-----------------------------|
| <b>Service</b>     | Nondestructive Testing      |
| <b>Instrument</b>  | Resistograph PD Series      |
| <b>Elements</b>    | Timbers, Poles, Pilings     |
| <b>Deliverable</b> | Density Profiles + Report   |
| <b>Supplement</b>  | Increment Core / Microscopy |

**The Resistograph PD Series provides real-time relative density profiles, allowing a timber inspector to gather extensive field data for clients in a relatively short period of time.**



Consistent relative density profile indicating sound wood — with a detected split at 3¾ to 4 inches depth. Profile interpretation requires wood science expertise.

| Measuring / object data |             |
|-------------------------|-------------|
| Measurement no.         | 1           |
| ID number               | 0.0         |
| Drilling depth          | 11.88 m     |
| Date                    | 04/11/2015  |
| Time                    | 12:00:17    |
| Feed speed              | 80 mm/min   |
| Measuring speed         | 1000 mm/min |
| Measuring date          | —           |
| Y/N                     | all         |
| Object                  | Steel       |
| Avg. curve              | all         |
| Diameter                | 10 mm       |
| Level                   | —           |
| Direction               | —           |
| Speed                   | —           |
| Location                | —           |
| Name                    | —           |



| Assessment                                                                        |      |      |    |       |                    |
|-----------------------------------------------------------------------------------|------|------|----|-------|--------------------|
|  | From | 0.00 | to | 7.00  | Comment: PD levels |
|  | From | 2.00 | to | 11.50 | Low PD levels      |
|                                                                                   | From | 0.00 | to | 0.00  |                    |
|                                                                                   | From | 0.00 | to | 0.00  |                    |
|                                                                                   | From | 0.00 | to | 0.00  |                    |
|                                                                                   | From | 0.00 | to | 0.00  |                    |

Profile revealing hidden decay inside a masonry bearing beginning at 4¾ inches — invisible to visual inspection but clearly identified by resistance drilling.

## APPLICATIONS & STRUCTURE TYPES

- ✓ Historic mill buildings, covered bridges, and timber-framed structures — grading, decay mapping, and design value determination.
- ✓ Utility poles and transmission infrastructure — internal condition assessment to prioritize replacement and maintenance.
- ✓ Marine pilings and foundation piles — detection of marine borer damage (*Limnoria*, *Teredo*) and fungal decay at critical bearing zones.
- ✓ Parks, challenge courses, and arboricultural applications — assessment of structural wood elements and standing trees for public safety.

## LIMITATIONS & BEST PRACTICE

- ✓ Resistograph drilling is highly effective for detecting voids and intermediate-to-advanced decay; incipient decay requires supplementary microscopic analysis.
- ✓ Accurate interpretation of density profiles requires formal training in wood science and an understanding of species-specific density variation and ring patterns.
- ✓ Wood Science Consulting routinely supplements drilling data with increment core extraction and microbiological analysis to confirm sound wood boundaries for engineering repair.

# RFQ COMPLIANCE SUMMARY



## **RFQ Compliance Summary**

MidAtlantic Engineering Partners' proposed scope includes:

- Underwater inspection of ten (10) selected bents consisting of twenty (20) timber piles.
- Level II underwater inspection of all selected piles from the high-water mark to the mudline.
- Level III underwater inspection of twenty percent (20%) of water-based piles.
- Marine growth removal and detailed pile examination in accordance with RFQ requirements.
- Timber resistance drilling utilizing an IML Resi PD-500 resistance drill or equivalent.
- Documentation of marine borer activity, section loss, checking, splitting, impact damage, and other structural deficiencies.
- Photographic documentation of above-water and underwater conditions, as site conditions permit.
- Engineering evaluation of inspection findings.
- Repair and rehabilitation recommendations.
- Development of planning-level opinions of probable cost for repair alternatives.
- Bent elevation drawings identifying deficiency locations.
- Preparation of a comprehensive underwater inspection report including:
  - Purpose and Scope of Inspection
  - Inspection Methodology
  - Existing Conditions
  - Summary of Findings
  - Engineering Evaluation
  - Repair Recommendations
  - Cost Estimates
  - Photographic Documentation
  - Bent Elevation Drawings
- Team experience in underwater inspections, waterfront engineering, structural evaluation, cost estimating, and maintenance planning.
- Previous inspection experience at the Holden Beach Pier.
- Commitment to completion within forty-five (45) calendar days of Notice to Proceed, subject to weather conditions and site accessibility.
- Drug-free workplace and commitment to all RFQ requirements.

MidAtlantic Engineering Partners has reviewed the Request for Qualifications and confirms that the proposed team, approach, and deliverables satisfy the requirements outlined in the RFQ for the Development of an Underwater Inspection Report and Cost Estimates for the Holden Beach Pier.

## PROJECT TEAM



# MidAtlantic



## W. STUART LEWIS

### P.E.

Professional Engineer /  
Diver

#### Education

**New York University-School of  
Engineering**  
B.S., Civil Engineering

#### Licensure

New Jersey Licensed Professional Engineer  
New York Licensed Professional Engineer  
Connecticut Licensed Professional Engineer  
Pennsylvania Licensed Professional Engineer  
Delaware Licensed Professional Engineer

#### KEY QUALIFICATIONS

Stuart is a principal of the firm with 18 years of experience completing waterfront development and rehabilitation projects in the New York/New Jersey Harbor, and in the greater Camden/Philadelphia area. This experience includes structural inspection, designing of waterfront structures, bulkheads, platforms, hose towers, mooring structures, providing resident engineering services, developing and implementing inspection databases, or Geographic Information Systems (GIS), and Ferry landing design and logistics. He has conducted numerous above and underwater investigations of marine facilities throughout the Eastern and Western United States. He has extensive experience in recognizing biological, chemical and mechanical deteriorations in timber, concrete and steel elements.

Stuart is certified in the use of surface supplied air diving equipment and is trained to perform underwater inspections per guidelines of the American Society of Civil Engineers (ASCE) for Professional Engineer divers and inspection methods of the U.S. Navy. His duties as a manager of underwater services include: managing teams for waterfront inspections and structural analysis for structures such as relieving platforms, seawalls, bulkheads, anchorages and piers for private and public clients. Stuart is highly proficient in, preparing inspection reports, cost estimates, developing repair recommendations and generating contract drawings.

#### PROJECT EXPERIENCE - WATERFRONT ENGINEERING

##### **Perth Amboy 1160 LLC: Perth Amboy, NJ**

Engineer of records for the design, permitting, construction support and installation of 600 linear feet of a steel tie-back bulkhead for an industrial use high load capacity marine contractor facility. Engineering challenges included poor soil matrix within the top 20-feet to then a thick clay layer. Sizing of the sheet and tie-rods were critical to the successful installation of this bulkhead. Clients design life for the project was 50-years. Cathodic project was integrated into the design to protect and extend the service life of the bulkhead.

##### **Gordon Terminal Mooring Structures: Bayonne, NJ**

Engineer of Record for the design of two(2) mooring structures. The structures are designed to withstand the mooring loads from cross Atlantic oil vessels. Prior to the design a berth and mooring analysis was performed to determine the loads. Geotechnical borings were obtained.

## PROJECT EXPERIENCE - WATERFRONT ENGINEERING (Continued)

This project required deep foundation pile designs due to the poor soil and the extremely high loads imposed on the structure from the ships.

### **NYCEDC On-Call Maritime Engineering: New York, NY**

Engineer of Record responsible for the completion of multiple hydrographic, soil boring, ferry landing and vessel inspections and associated engineering investigations performed as part of this ongoing contract with NYCEDC. In 2015, hydrographic and soil boring investigations were performed at 18 various proposed ferry landing sites. In 2016, vessel inspections and resident engineering performed on Citywide ferry vessels under construction in Louisiana and Alabama.

### **NYCEDC Seaport City: New York, NY**

Engineer of Record responsible for the completion of feasibility engineering design and cost estimates for the Seaport City study. The Seaport City Feasibility Study advanced the recommendations of "A Stronger More Resilient New York". The recommendations are based on the central principles that initiatives for resilience should be ambitious but achievable. The recommendations in this report hold a multi-layered approach, seeking to: build coastal defenses, design new and retrofit existing buildings for resilience and protect critical city infrastructure and services.

### **Brooklyn Navy Yard Waterfront Rehabilitation: Brooklyn, NY**

Engineer of Record responsible for evaluation, design, and permitting for rehabilitation of the low-level relieving platforms at the Navy Yard Barge Basin; investigation of Dry Dock 4 including its adjacent upland area to determine the viability of its continued use as a dry dock and/or what improvements are necessary for its use as a wet berth; investigation of Pier C in order to determine the practicability for its continued use, and if impractical, reasonable and appropriate alternative options for maritime use; and, investigation of potential new or existing maritime businesses that will both sustain and increase the maritime industry in Wallabout Bay.

### **PSEG Marion Dock Rehabilitation: Jersey City, NJ**

Engineer of Record for the investigation, concept design, final design and construction administrative services provided to PSEG Fossil to replace a failed low level timber platform, with an engineering rip-rap shoreline and smaller high capacity loading pier. Clay soils contributed to major geotechnical challenges.

### **PSEG Sewaren Station: Sewaren, NJ**

Engineer of Record for the 3D Echo Scope Sonar investigation, concept design, final design and construction administrative services provided to PSEG Fossil to replace a failed low level timber platform, with an engineering rip-rap shoreline.

### **PSEG BHS Coal Dock Upgrade: Bridgeport, CT**

Engineer of Record performed a feasibility assessment of the existing coal unloading dock. The objective of the assessment was to evaluate if the existing dock could support product transfer from bulk liquid petroleum barges and determine what structural modifications and operational limitation may be required to facilitate these operations.

#### PROJECT EXPERIENCE - UNDERWATER INVESTIGATION (Continued)

##### **NYCEDC Brooklyn Cruise Terminal - Pier 12: Brooklyn, NY**

Inspected and provided rehabilitation design for Pier 12, located at the Brooklyn Cruise Terminal. Above and underwater inspection aided in structural analysis and refining repair criteria.

##### **NYCEDC Piers 35/36, East River: New York, NY**

Performed inspections and provided rehabilitation designs as the Project Engineer and Diver. Above water and underwater inspections were performed to properly identify, locate, and quantify defects in need of repair. A tidal eco-park was also designed and installed at the inshore portion of Pier 35. All local, state, and federal permits were prepared for rehabilitation.

##### **NYCEDC Waterfront Inspection: New York, NY**

Performed a routine investigation of NYCEDC owned waterfront properties in accordance with NYCEDC Inspection Guidelines Manual. Facilities included marinas, seawalls, bulkheads, high and low-level relieving platforms, ferry terminals, floating barges, rip-rap shorelines and piers all around New York City.

##### **PANYNJ Bridge 1,2 & 3 Rail Bridge Inspection: Elizabeth, NJ**

Senior Project Manager responsible for managing and performing an above water and underwater investigation of rail bridge footings, underdeck and structural members associated with rail bridges 1, 2 and 3, located at the marine terminal.

##### **NYCEDC Paerdegat Basin Routine Inspection: Brooklyn, NY**

Senior Project Manager responsible for the above and underwater routine inspection of multiple marinas in Paerdegat Basin. Structures included rip-rap shoreline, steel bulkheads, floating docks and timber crib structures.

##### **NYCEDC Stuyvesant Cove Park: New York, NY**

Senior Project Manager responsible for the above and underwater routine inspection of the granite and concrete seawall associated with Stuyvesant Cove Park.

##### **NYCEDC MacNeil Park: Queens, NY**

Senior Project Manager responsible for the baseline above and underwater inspection of the rip-rap shoreline at MacNeil Park.

##### **NYCEDC On-Call Maritime Engineering: New York, NY**

Project Manager responsible for the completion of multiple hydrographic, soil boring, ferry landing and vessel inspections and associated engineering investigations performed as part of this ongoing contract with NYCEDC. In 2015, hydrographic and soil boring investigations performed at 18 various proposed ferry landing sites. In 2016, vessel inspections and resident engineering performed on Citywide ferry vessels under construction in Louisiana and Alabama.

#### **PROJECT EXPERIENCE - WATERFRONT ENGINEERING (Continued)**

##### **Kinder Morgan Liquid Terminals: Staten Island, NY**

Engineer of Record responsible for the concept design, final design and obtaining all environmental permitting for rehabilitation of waterside bulkhead returns at the terminal. Provided additional construction support administration reviewing contractor submittals and request for information (RFI's).

##### **Kinder Morgan Liquid Terminals - Barge Berths A, B and C: Carteret, NJ**

Project Manager responsible for the underwater investigation, maintenance and rehabilitation of the barge berths A, B and C. Managed technical staff, CADD, geotechnical exploration program to generate a cost and logistical sensitive rehabilitation options.

##### **Kinder Morgan Liquid Terminals - Old Dock 1: Carteret, NJ**

Project Manager for the emergency design and replacement of failed timber bents along the approach walkway to the unloading dock.

##### **Kinder Morgan Liquid Terminals - Dock 3 Rehabilitation: Carteret, NJ**

Senior Project Manager responsible for overall project management, scope, fee and deliverable QA/QC of rehabilitation drawings for the approach trestle at Dock 3.

# MidAtlantic

## Engineering Partners



**JESSE A. HERRON**

### KEY QUALIFICATIONS

**P.E.**

**Professional Engineer / Diver**

#### Education

**Pennsylvania State University**

B.S., Civil Engineering

Minor in Marine Science

#### Training

New Jersey Professional Engineer

New York Professional Engineer

Pennsylvania Professional Engineer

ADCI Surface Supplied Air Diver

ADCI Surfaced Supplied Air Diving Supervisor

NHI Underwater Bridge Inspector (130091)

NHI Team Leader Certification (130056)

CRP/AED/First Aid/Bloodborne Pathogens

OSHA Confined Space Safety

OSHA 10 hr. Construction

TWIC Card

Jesse is a registered professional engineer and diver with 16 years of underwater inspection, engineering consulting, and field experience. Having worked as both a consultant and contractor for a number of rehabilitation and restoration projects in the tristate area, he has successfully met deadlines and deliverables for inspection and construction activities through proficient time management, problem solving, adapting to unforeseen field conditions, and significant knowledge of waterfront infrastructure. He is uniquely qualified to analyze both design and construction issues, and prides himself on his ability to communicate project details to clients.

### PROJECT EXPERIENCE - WATERFRONT STRUCTURAL ENGINEERING

#### **Prologic Terminal: Bayonne, NJ**

Engineer of Record from the initial feasibility design through to issued for bid documents to stabilize, fortify, and expand the project site. The investigation for the project included performing historical site research, test pits, and soil borings. The end result included the design, permitting and construction oversight of over 1,500 linear feet of new bulkhead, mooring points and access platforms.

#### **Kinder Morgan Bulkhead Replacement: Staten Island, NY**

Engineer responsible for generating plans and specifications for bid opportunity. Produced and submitted DEP and USACE joint permit application package as well as NYC Department of Small Business waterfront permit package.

#### **Kinder Morgan Guidewire Design: Carteret, NJ**

Completed hand calculations and quality control review of co-worker hand calculations of the stresses and material requirements for design of an OSHA approved elevated safety guide-wire system along a continuous 100 ft span. Using the calculated forces as a basis, contract plans were designed and drafted. Completed the construction phase of project work, including bid, submittal, and RFI review.

# MidAtlantic

## Engineering Partners

JESSE A. HERRON  
P.E.

Professional Engineer/  
Diver

### PROJECT EXPERIENCE - STRUCTURAL ENGINEERING CONT.

#### **Kinder Morgan—Dock 2 Re-Build: Carteret, NJ**

Lead design structural engineer for the demo and re-build of the South Platform and Manifold Platform at Dock 2. Design included steel framing and decking design with new pipe piles being driven to bedrock. Geotechnical analysis and design was performed using DeepFND. All framing and structural connections were designed and detailed using AISC Steel Construction Manual. Performed engineer of record duties including permitting, construction management, and inspection during construction.

#### **1900 South Ave: Staten Island, NY**

Lead design structural engineer for the inspection and design of a new high capacity pile supported platform used for marine transfer of aggregate. Design included foundation, piles, steel sheep pile, decking, shoreline, and pile rehabilitation design. Design presented challenges due to poor soil properties and shallow bedrock. Performed engineer of record duties including permitting, construction management, and inspection during construction.

#### **Mooring Structure—Gordon's Terminal: Newark, NJ**

Lead design structural engineer for the design of two new mooring structures, designed to withstand the loads from multiple shops at birth during the product offloading. Worked with the contractor and owner to develop a cost effective design while meeting all structural requirements.

#### **Mooring Structure—PBF Energy: Delaware City, DE**

Lead design structural engineer for the design of a new breasting and mooring dolphin, designed to withstand the loads from a 160,000 DWT ship at berth during the product offloading. Design was performed using 3D software to check existing and proposed geometry that may cause clearance issues during installation.

#### **NYCEDC Routine Inspection - Fresh Kills Park: Staten Island, NY**

Performed above and underwater inspection of two sites at Fresh Kills Park. Inspection activities included inspection of bulkheads, high-level deck platforms, fender screens, dolphins, and the adjacent shoreline around two former marine offload sites associated with a former landfill. Elements inspected included timber piles, timber caps, steel sheet pile, and timber components associated with decking. After inspection activities, an exit briefing, budgeting estimate for future actions, structural analysis, and inspection report were prepared.

### PROJECT EXPERIENCE - CONSTRUCTION MANAGEMENT

#### **Toys R Us Substructure Rehabilitation: Brooklyn, NY**

Performed Resident Engineer services to inspect installed contractor work for a high-level pile supported structure within the Verrazano Narrows waterfront. Repairs included chipping, shot blasting, placement of reinforcement, shotcrete application, and encasement of steel H-piles. Responsibilities included joint inspection, approval of repair for payment, progress tracking, field reports, and establishing pay quantities from field measurements.

# MidAtlantic

## Engineering Partners

JESSE A. HERRON  
P.E.

Professional Engineer/  
Diver

### PROJECT EXPERIENCE - CONSTRUCTION MANAGMENT

#### **Hunts Point Landing: Bronx, NY**

Acted as Project Manager for the General Contractor constructing a waterfront park with intertidal wetlands, kayak ramp, and high-level platform fishing pier. Primary responsibilities included, material sourcing and estimating, project team communication and coordination, change order estimation, cut and fill analysis, creating and updating a CPM schedule, pile driving as-builts, design details due to field conditions, subcontractor coordination, and assuring the project was constructed in conformance with the details set forth in the contract drawings and specifications.

### PROJECT EXPERIENCE - UNDERWATER INVESTIGATION

#### **Underwater Inspection and Rating of BIN 5521239 Cross Bay Boulevard over Jamaica Bay Metropolitan Transportation Authority (MTA & NYSDOT)**

Engineer/Diver/Supervisor performing Level III In-Depth underwater structural inspections, and fathometer surveys of BIN 5521239 comprising a total of five (5) bridges and ramps in accordance with NBIS, FHWA, NYSDOT, MTA, and OSHA standards. Responsibilities included organizing and scheduling inspections, performing the inspection, collecting field data, structural evaluations, preparing inspection reports, including CAD drawings, repair recommendations and structural condition ratings in accordance with the NYSDOT Bridge Inspection Manual 2017, Appendix F Bridge Diving Inspection Manual 1999 Rev. 2010.

#### **Underwater Inspection and Rating of BIN 5521240 Marine Parkway Bridge over Jamaica Bay Metropolitan Transportation Authority (MTA & NYSDOT)**

Engineer/Diver/Supervisor performing Level II or Level III In-Depth underwater structural inspections, and fathometer surveys of BIN 5521240 in accordance with NBIS, FHWA, NYSDOT, MTA, and OSHA standards. Responsibilities included organizing and scheduling inspections, performing the inspection, collecting field data, structural evaluations, preparing inspection reports, including CAD drawings, repair recommendations and structural condition ratings in accordance with the NYSDOT Bridge Inspection Manual 2017, Appendix F Bridge Diving Inspection Manual 1999 Rev. 2010.

#### **NYCEDC Routine Inspection - Pier 1: Staten Island, NY**

Led above and underwater inspections of five different waterfront structural systems located on the northern shoreline of Staten Island in the New York Lower Bay. The project included inspection of bulkheads, high-level deck platforms, dolphins, and gravity walls. Components inspected included, timber piles, steel and timber pile caps, and cast-in-place concrete decks. After inspection activities, an exit briefing, budgeting estimate for future actions, structural analysis, and inspection report were prepared.

#### **NYCEDC Routine Inspection - Fresh Kills Park: Staten Island, NY**

Performed above and underwater inspection of two sites at Fresh Kills Park. Inspection activities included inspection of bulkheads, high-level deck platforms, fender screens, dolphins, and the adjacent shoreline around two former marine offload sites associated with a former landfill. Elements inspected included timber piles, timber caps, steel sheet pile, and timber components associated with decking. After inspection activities, an exit briefing, budgeting estimate for future actions, structural analysis, and inspection report were prepared.

# MidAtlantic

## Engineering Partners



### ANTHONY TEDESCHI

Engineer - Dive Supervisor

#### KEY QUALIFICATIONS

Anthony has 12 years of experience in waterfront engineering and consulting, including theoretical and practical experience in the inspection of marine structures, contract document preparation, residential engineering services, and permitting. He has over 20 years of underwater diving experience and is trained as a surface-supplied air diving supervisor by the Association of Diving Contractors International (ADCI).

#### Education

##### **Florida Institute of Technology**

M.S., Ocean Engineering

B.S., Ocean Engineering

#### Licensure

ADCI Surface Supplied Dive Supervisor

DCBC Surface Supplied Diver

Kirby Morgan Dive Systems – Repair  
Technician

U.S. Merchant Marine Officer - USCG Captain

Anthony has a background in Ocean Engineering receiving both his Bachelor of Science degree and Masters of Science degree in Ocean Engineering from Florida Institute of Technology. He also performed academic research focused on underwater technologies, coastal structures, and port and harbor facilities. Anthony is responsible for managing field operations and dive safety, underwater and above water investigations, material testing, rehabilitation design, construction services and 3-D underwater imagery for MidAtlantic Engineer Partners.

#### PROJECT EXPERIENCE - UNDERWATER INVESTIGATION

##### **United States Coast Guard (USCG) Moriches Station: Moriches, NY**

Conducted above water and underwater routine investigation at the USCG Moriches Station, in Moriches, New York. The investigation was completed to document existing deterioration and provide an overall existing condition assessment of various structural components. The routine inspection was documented in a report which included structural condition assessments, recommended maintenance plans and associated opinion of probable costs.

##### **NYCDOT HBCBORERS-R FDR & Harlem River RE Underwater Inspection: New York, NY**

Operated as dive supervisor and engineer diver for the underwater inspection for the NYCDOT FDR Marine Borer contract. Responsibilities included insuring all dive equipment was operational in accordance with OSHA and ADCI standards, supervising all dive inspection work, leading pre-dive planning, and leading post dive debriefs. The dive inspections were completed to verify pay lengths and quality of repairs. Daily inspector logs were prepared documenting the result of dive inspections.

# MidAtlantic

## Engineering Partners

ANTHONY TEDESCHI  
Engineer -Dive Supervisor

### PROJECT EXPERIENCE - UNDERWATER INVESTIGATION (CONTINUED)

#### **Buckeye Partners, L.P.: Various Locations, U.S.**

Conducted underwater and above water structural inspection of the waterfront structures at terminals in Albany and Bronx, New York, Charleston, South Carolina, and Yabucoa, Puerto Rico. The purpose of these inspections was to document existing deterioration types and severity, provide an overall existing condition assessment of each structural component, and confirm as-built dimensions of the underwater structures.

#### **Consolidated Edison Energy Company, Farragut Substation: Brooklyn and Bronx, NY**

Completed underwater and above water inspections. Completed structural condition assessments, destructive testing of timber-pile-supported low-level relieving platform and concrete bulkhead. Conducted feasibility evaluation to determine capacity of the existing structure to evaluate its ability to support a concrete floodwall designed to protect the substation yard from flooding related to storm surge. Provided rehabilitation recommendations, 3D modeling of the existing structure, and conceptual rehabilitation designs.

#### **Magellan Midstream Partners, L.P.: Various Locations, U.S.**

Completed above water and underwater routine investigations at multiple terminals in TX, LA, and CT. The purpose of these investigations was to document existing deterioration types and severity and provide an overall existing condition assessment of each structural component. Prepared a routine inspection report which included structural condition assessment, recommended maintenance plan, and associated opinion of probable costs. Additionally, a berthing and mooring analysis of each facility at the terminal was performed.

#### **New York City Economic Development Corporation (NYCEDC): New York, NY**

Performed design, rapid and routine above water and underwater investigations in accordance with NYCEDC Inspection Guidelines Manual, between 2011-2016. Facilities inspected include; Battery Park Wharf, Brooklyn Army Terminal, Brooklyn Navy Yard, East River Esplanade, Fulton Fish Market, Fresh Kills Sanitation Station, Harlem River Esplanade, Homeport Pier, Manhattan Cruise Terminal, Pier 42, Red Hook Terminal, Riverside Marine Transfer Station, and Southwest Brooklyn Marine Transfer Station.

#### **Kinder Morgan: Various Locations, U.S.**

Routine above water and underwater investigation of multipole terminals located in New York, New Jersey and Texas. The purpose of the inspections was to document continuing deteriorated structural elements, recommend maintenance plans and associated opinion of probable costs (OPC), and reevaluate rehabilitated elements. Assisted with recommendations and performed QA/QC of the final reports.

### PROJECT EXPERIENCE - WATERFRONT STRUCTURES INSPECTION & DESIGN

#### **MCT Viaduct Concrete Investigation**

Extracted concrete core samples from precast pre-stressed concrete supports throughout the structure as a part of a concrete investigation. The cores were extracted for visual inspect of concrete, strength testing, chloride testing and half-cell potential of reinforcing steel to determine structural capacity and remaining service life.

# MidAtlantic

## Engineering Partners

ANTHONY TEDESCHI  
Engineer -Dive Supervisor

### PROJECT EXPERIENCE - WATERFRONT STRUCTURES INSPECTION & DESIGN (CONTINUED)

#### **Toys R Us Caesar's Bay Facility Investigation: Brooklyn, NY**

Extracted concrete core samples from the pile caps and pedestals throughout the structure as a part of a concrete investigation. The cores were extracted for visual inspection of concrete, strength testing, chloride testing and half-cell potential of reinforcing steel to determine structural capacity and remaining service life.

#### **East River Esplanade, NYC**

Served as Project Engineer/ Diver in the evaluation of multiple waterfront structures as part of the New York City Office of Management and Budget's (NYCOMB) and the Department of Park and Recreation East River Esplanade Inspection. The project involved the evaluation of multiple structures along the shores of the East River and Harlem River. Work involved cursory above water and underwater inspection, GIS location of defects and structure changes, and development of level II and III inspection recommendations.

# MidAtlantic

## Engineering Partners



### CHRISTOPHER J. CERRUTI

#### Marine Engineer/Diver UAV PILOT

##### Education

**Worcester Polytechnic Institute**  
B.S., Civil Engineering

##### Training

NHI 130091: Underwater Bridge Inspection  
OSHA: 40-hour HAZWOPER  
OSHA: 8-hour HAZWOPER Refresher  
Federal Aviation Administration: Small  
Unmanned Aircraft System Remote Pilot

##### Certifications

Association of Diving Contractors  
International: Surface-Supplied Air Diver  
Diver Certification Board of Canada:  
Restricted Surface Supplied Diver

##### KEY QUALIFICATIONS

Christopher is part of the MidAtlantic Marine Engineer-Dive Team. His project experience covers a wide variety of marine above water and underwater inspection, environmental engineering, construction and drone survey disciplines. Christopher brings expertise in marine related duties including: underwater and above water investigations, material testing, rehabilitation design, construction services inspection, hydro surveying and drone inspection. Project design experience has included preparation for both public and private marina and waterfront facilities rehabilitation, as well as dredging and waterfront development permitting. Christopher has additionally performed environmental remediation related duties including: Phase I and Phase II Environmental Investigations, Preliminary Assessments, Site Investigations, Remedial Investigations, Remedial Actions, underground and above ground storage tank management, and handling of hazardous and nonhazardous materials.

##### PROJECT EXPERIENCE - BRIDGE INSPECTION

###### **Sawmill Creek Bridge and Berry's Creek Bridge Inspections: Lyndhurst, NJ**

Performed an underwater Type III inspection of the W110.42 NJTPK Bridge over Sawmill Creek and W111.48 Bridge over Berry's Creek. The purpose of the inspection was to document existing deterioration types, the severity of the identified deterioration, and provide an overall existing condition assessment of the bridge.

###### **Amtrak Bridge 8.50 Dock Bridge: Newark, NJ**

Performed an underwater Routine Level inspection of the Amtrak Bridge 8.50 (Dock Bridge) spanning the Passaic River in Newark, New Jersey. The primary objectives of the inspection were to assess the general condition of the structures, assign a condition assessment rating to each system, and provide recommendations for repairs on an immediate, priority, or routine basis. Additionally, a hydrographic survey was performed around the bridge piers to map water depths and document any apparent scour.

###### **Marine Parkway Bridge: Queens, NY**

Engineer-Diver responsible for performing underwater inspection of bridge elements as part of a biennial bridge inspection. The purpose of the inspection was to document existing deterioration types, the severity of the identified deterioration, provide an overall existing condition assessment of the bridge, and ultimately provide repair procedure recommendations.

###### **Glimmer Glass Bridge: Manasquan, NJ**

Engineer-Diver responsible for underwater construction engineering inspection.

# MidAtlantic

## Engineering Partners

CHRISTOPHER J.  
CERRUTI

Marine Engineer/  
Diver  
UAV PILOT

### PROJECT EXPERIENCE - BRIDGE INSPECTION PROJECTS (Continued)

#### **W-7 Bridge: Manasquan, NJ**

Engineer-Diver responsible for perform a design level underwater inspection of the support piles at Bridge W-7. Inspection activities including taking measurements of each component so that repairs could be specified and quantified with relative confidence. Calculated current capacity of the bridge using diameter, length, and spacing of the piles to develop a revised load rating for the bridge until repairs could be completed.

#### **Cranberry Bridge Inspection: Byram, NJ**

Performed a topside, cable, and underwater Design Level Inspection of the Cranberry Pedestrian Bridge, in Byram, New Jersey. The purpose of the inspection was to document existing deterioration types, the severity of the identified deterioration, provide an overall existing condition assessment of the bridge, and ultimately provide repair procedure recommendations and quantities.

### UNDERWATER INVESTIGATION

#### **NYCEDC Pier 76 Rehabilitation: New York, NY**

Engineer-Diver responsible for perform a design level underwater inspection of the support piles to obtain detailed design details required to generate contract repair drawings.

#### **Virginia Water Authority Dam Inspection: Statewide Virginia**

Engineer-Diver and Drone Pilot responsible for obtaining site photos, inspection of dam risers, outlet pipes and spill ways. Perform above water inspections and coordinated all inspection with divers, clients and local residents.

### MARINE DESIGN

#### **NYCEDC Canton Court Rehabilitation: Brooklyn, NY**

Project Engineer responsible for the preliminary design level inspection, drone survey of an active failing concrete bulkhead. Generated construction documents including site plans, cross-section and rehabilitation repair drawings and project specifications.

#### **Kinder Morgan Carteret Terminal : Carteret, NJ**

Dredge Engineer responsible for obtaining all local, state and federal Dredging permitting of CTR Dock at the Carteret Terminal, in Carteret, NJ.

### DRONE PILOT PROJECTS

#### **Post Hurricane Maria Emergency Drone Inspection—Puerto Rico**

Following hurricane Maria, Chris was the on-site licensed UAV pilot in control of drones to perform site surveys at each facility. Drone imagery was used to perform visual topside inspection on inaccessible structures due to damage to the structure below.

# Wood Science

## Consulting

PO Box 1381, 20 Ciferri Drive  
Millbrook NY 12545  
o: 845-605-1225 m: 914-489-6727

Matthew E. Anderson

Abbreviated Curriculum Vitae

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### EXPERIENCE

Investigation and expert analysis relating to wood and wood-based materials used in all aspects of construction including, but not limited to: failure analyses; visual grading of lumber and timbers in-situ; mechanical testing; resistance drilling and condition assessments; performance of structural composite lumber; utility pole failures, wood species identifications; finish problems associated with wood and wood-based materials; assessment of wood decay; insect attack and marine borers; evaluation of marine and foundation timbers and pilings; microscopy analyses; mechanical testing; solid wood, engineered wood and bamboo flooring investigations; cedar shake and shingle roof and wall installations; furniture design and failure; wooden ladders; moisture intrusion issues in structures; building envelope issues; assessment of mold; performance of wood plastic composites; evaluation of glued laminated timbers; preservative retention analyses; assessment of cooling tower and lumber; analysis of shipping container flooring; and more.

### EXEMPLAR PROJECTS

- Structural Assessment of the Timber Framing in the K120 and K90 Olympic Ski Jumps., Lake Placid, NY.
- Assessment of Bowstring Trusses at 190 Banker Street, Brooklyn, NY.
- Resistograph Testing of the Wooden Elements in Bridge No. 1901000, MD-364, over Dividing Creek.
- Assessment of Arch Glulam Beams in the CBEI Building, Philadelphia, PA.
- Evaluation of Timber Piles Removed from Port Covington, Baltimore, Maryland.
- Assessment of the First Level Floor Elements at St. Peter's Church, Pittsburgh, Pennsylvania.
- Assessment of the Roof Elements in the Old Dallas High School.
- Structural Assessment of Timber Trusses and Roof Rafters at the Highland Presbyterian Church, Louisville, KY.
- Assessment of a Bowstring Truss in Hangar D, Westchester County Airport.
- Revision of NACFC Unified Facilities Guide Specifications.
- Evaluation of Failed Utility Poles associated with personal injury and matters of death.
- Evaluation of Several Wood Poles at OCI Beaumont LLC, Nederland, Texas.
- Assessment of Architectural Siding and Trim Materials at Harvard University.

# Wood Science

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Matthew E. Anderson

Abbreviated Curriculum Vitae

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### EMPLOYMENT HISTORY

#### **Wood Science Consulting**

- Principal/Owner, Consulting Wood Scientist from 2015-present

#### **Southern Pine Inspection Bureau (SPIB)**

- Inspector, 2016-present

#### **Wood Advisory Services, Inc.**

- Consulting Wood Scientist from January 2005 to June 2015
- Wood Technologist from November 1998 to December 2004

#### **Oregon State University**

- Graduate and Undergraduate Research Assistant from 1996-1998, summer 1995

### EDUCATION

#### **Oregon State University**

- Master of Science, Wood Science and Engineering, 1998

#### **SUNY Environmental Science and Forestry**

- Bachelor of Science, Construction Management and Wood Engineering, 1996

#### **SUNY Oswego**

- Dual major; Physics and Math, 1991-1994

### PROFESSIONAL ORGANIZATIONS

- ASTM – American Society of Testing and Materials
- AWC – American Wood Council
- FPS – Forest Products Society
- AWPA – American Wood Protection Association
- SWST – Society of Wood Science and Technology
- ASCE – American Society of Civil Engineers

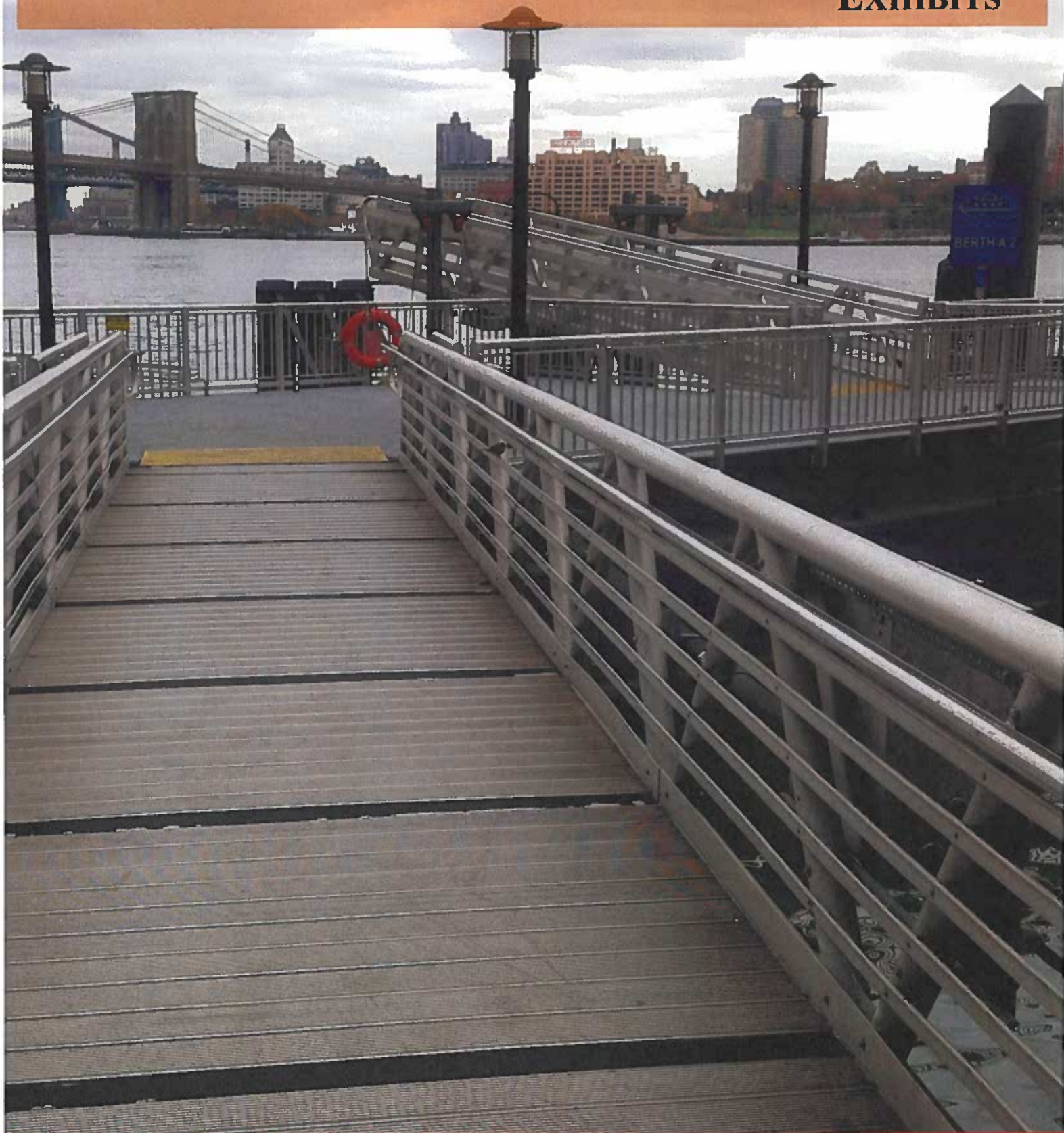
### PUBLICATIONS

- Masters of Science Thesis, 1998 – The effects of supercritical CO<sub>2</sub> on the bending properties and treatment defects of four refractory wood species, Oregon State University.
- Peer Reviewed Journal Articles (5)
- Regional, National and International Publications and Presentations (20+)
- Other Technical Consulting Reports (200+)

### HONORS AND AWARDS

- ASTM – 2013 – Award of Appreciation
- FPS – 2000-2004, Northeast Section, Commendable Award, Outstanding Section, and Excellent Section.
- Forest Honor Society – Xi Sigma Pi, 1998.
- SUNY ESF – President's List 1995-1996, Graduating Honors, 1996 and Nelson Courtland's Brown Scholarship Award. 1996.

# EXHIBITS



## EXHIBIT A

### Execution Page

By executing this Request for Qualifications ("RFQ"), the undersigned Vendor certifies that this response is submitted competitively and without collusion, that none of its officers or directors has been convicted of any violations under Chapter 78A of the North Carolina General Statutes (the North Carolina Securities Act), the Securities Act of 1933 or the Securities Exchange Act of 1934, and that it is not an ineligible vendor as set forth in N.C.G.S. § 143-59.1.

As required under N.C.G.S. § 143-48.5, the undersigned Vendor certifies that it, and each of its subcontractors, if any, for any contract awarded as a result of this RFQ, complies with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, including the requirement for each employer with more than 25 employees in North Carolina to verify the work authorization of its employees through the federal E-Verify system.

Proposals will be evaluated to rank the responding vendors in order of their qualifications and competence following which the Town will attempt to negotiate a fair and reasonable contract price with the best qualified vendor.

**The failure to execute/sign this response prior to its submittal shall render the response invalid such that it will be rejected. Late responses shall not be considered.**

Vendor: MidAtlantic Engineering Partners, LLC

Street Address: 2026B Briggs Road, Suite 300

City, State, and Zip: Mount Laurel, NJ 08054

Mailing Address: 2026B Briggs Road, Suite 300

City, State and Zip: Mount Laurel, NJ 08054

Federal ID No. or Social Security No.: 27-3639513

Name/Title of Person Signing on Behalf of Vendor: Anthony Tedeschi, Project Manager

Signer's Telephone No.: 609-541-7096

Signer's Mobile No.: 609-870-4019

Signer's Email Address: atedeschi@midatlanticeng.com Date: 5/28/2026

Vendor's Authorized Signature:



**EXHIBIT B**

Name of Vendor: MidAtlantic Engineering Partners, LLC

The undersigned hereby certifies that [check all applicable boxes]:

- ☒ Vendor is in sound financial condition.
- ☒ Vendor has no outstanding tax or judgment liens.
- ☒ Vendor is current in all amounts due for payments of federal and state taxes and required employment-related contributions and withholdings.
- ☒ Vendor is not the subject of any current litigation or findings of non-compliance under federal or state law.
- ☒ Vendor has not been the subject of any past or current litigation or findings in any past litigation which may impact in any way its ability to perform its obligations under an agreement resulting from this procurement process.
- ☒ The undersigned is authorized to make the foregoing statements on Vendor's behalf.

**If one or more of the foregoing boxes is NOT checked, please set forth the reason in the space directly below.**

Signature 

Date 5/28/2026

Anthony Tedeschi, Project Manager

Printed name and title

## EXHIBIT C

Pursuant to N.C.G.S. § 143-64.31, the Town invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises, and non-profit work centers for the blind and severely disabled. This includes utilizing subcontractors to perform any required functions set forth in this RFQ. Any questions concerning NC HUB certification may be directed to the North Carolina Office of Historically Underutilized Businesses at (984) 236-0103 or [huboffice.doa@doa.nc.gov](mailto:huboffice.doa@doa.nc.gov).

1. Is Vendor a Historically Underutilized Business? ☐ Yes ☒ No

2. Is Vendor certified with North Carolina as a Historically Underutilized Business? ☐ Yes ☐ No

If so, state HUB classification: \_\_\_\_\_.



Signature

5/28/2026

Date

Anthony Tedeschi, Project Manager

Printed Name and Title



# Town of Holden Beach

## **Development of an Underwater Inspection Report for 441 Ocean Boulevard West**

### Statement of Qualifications

June 10, 2026



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## Cover Letter

June 10, 2026

Heather Finnell, Town Clerk  
Town of Holden Beach  
110 Rothschild Street  
Holden Beach, NC 28462  
Submitted via email: [heather@hbtownhall.com](mailto:heather@hbtownhall.com)

### Re: Statement of Qualifications – Development of Underwater Inspection Report and Cost Estimates for 441 Ocean Boulevard West

WSP USA Inc. (WSP) is pleased to submit our Statement of Qualifications in response to the Town of Holden Beach's Request for Qualifications for the development of an underwater inspection report and cost estimates for the Town Pier located at 441 Ocean Boulevard West. We are confident our team's experience, availability, and technical approach align with the Town's requirements and will support informed decision-making regarding the future of this important public asset.

WSP understands the Town's objective is to evaluate the condition of the existing pier substructure through targeted underwater inspection and to develop reliable cost information to guide repair or replacement decisions. Our team brings specialized expertise in marine structural inspection, timber pile evaluation, and preparation of clear, decision-focused reports supported by defensible opinions of probable cost.

WSP has assembled a highly qualified, multidisciplinary team with experience performing underwater inspections and condition assessments of aging waterfront infrastructure. Our team will be led by local project manager **Jonathan Gerdes** from the **Wilmington, NC** office. Our capabilities include Level II and Level III inspections, visual and tactile evaluations, marine growth removal, and internal pile assessment using resistance drilling techniques.

A key component of this effort is the development of reliable cost estimates to support repair versus replacement decisions. WSP integrates cost estimating with inspection findings to provide clear, practical, and market-informed opinions of probable cost that reflect observed field conditions and marine construction considerations.

WSP has extensive experience working in coastal North Carolina and understands the environmental conditions, constructability challenges, and regulatory considerations that influence marine infrastructure projects. We have partnered with McKim & Creed, Inc. to provide hydrographic and survey support, ensuring accurate field documentation and evaluation.

WSP is committed to delivering this project efficiently and understands the importance of providing clear, concise findings within the Town's desired timeframe. Our team is prepared to mobilize quickly and deliver a well-organized report that supports timely and informed decision-making.

We appreciate the opportunity to support the Town of Holden Beach and look forward to assisting in evaluating the current condition of the pier and developing a clear path forward for its repair or replacement.

Sincerely,  
WSP USA Inc.

**Jonathan Gerdes, EIT**  
*Project Manager/ Civil Engineer*  
[Jonathan.Gerdes@wsp.com](mailto:Jonathan.Gerdes@wsp.com)

**Amy Crincoli, PE, PMP, CFM**  
*SVP, Eastern NC Business Lead*  
[amy.crowley@wsp.com](mailto:amy.crowley@wsp.com)

# 1. Firm Experience and Office Location

WSP is a nationally recognized, multidisciplinary engineering and professional services firm with specialized expertise in marine structural inspection, coastal engineering, and waterfront infrastructure assessment for public-sector clients across North Carolina and the Southeast. WSP has extensive experience, more than 50 years, supporting municipalities with condition assessments and rehabilitation planning for aging coastal structures, including timber pile-supported piers and waterfront facilities in tidally influenced, high-energy environments similar to the Town of Holden Beach.

WSP routinely assists public clients with targeted inspection and evaluation programs to inform repair-versus-replacement decisions for existing infrastructure. Our services align directly with the Town's needs and include underwater structural inspections, Level II and Level III pile assessments, structural condition evaluation, cost estimating, and development of clear, decision-support documentation. WSP's inspection approach integrates visual and tactile assessments, non-destructive testing methods (including resistance drilling where appropriate), and detailed field documentation to accurately characterize structural conditions from the waterline to the mudline.

WSP maintains strong familiarity with North Carolina coastal regulatory frameworks and has experience supporting projects requiring coordination with agencies such as the North Carolina Division of Coastal Management (CAMA permitting) and the U.S. Army Corps of Engineers. This experience allows WSP to identify permitting considerations that may affect future repair or replacement efforts and incorporate those considerations into recommendations and planning-level cost evaluations.



## Key Differentiators:

- Direct experience performing underwater inspections and condition assessments of timber pile-supported piers and waterfront structures to support repair or replacement decisions
- Understanding of Level II and Level III inspection requirements, including marine growth removal, tactile inspection, and resistance drilling for internal pile condition evaluation
- Experience supporting North Carolina coastal projects, including familiarity with CAMA permitting and regulatory considerations affecting waterfront infrastructure improvements
- Integrated team providing structural, coastal, environmental, survey, and cost estimating.

## 1.1 Coastal / Marine Engineering

WSP delivers comprehensive coastal engineering services across the United States, providing expertise in all facets of coastal restoration and protection. Our teams perform advanced technical analyses, including hydrodynamic modeling, sediment transport and dispersion studies, shoreline change assessments, dredged material placement evaluations, and geomorphological investigations, to inform resilient and effective restoration designs. This technical foundation enables us to create living shorelines and marsh restoration projects that are tailored to site-specific conditions and constraints, ensuring long-term sustainability and measurable outcomes.

Our experience spans diverse environments, from the Great Lakes and Florida's Gulf Coast to the Pacific Coast. WSP utilizes three-dimensional analyses, collects critical environmental data, develops robust restoration strategies, and provides both direct and third-party construction support. We also implement site operations and maintenance plans to evaluate project performance against client objectives, ensuring continuous improvement and adaptation.

WSP's coastal engineering expertise is organized into four key areas:

- **Metocean, Hydrodynamic, and Sediment Transport Analyses:** We deploy instrumentation and field data collection tools such as ADCPs and buoys, conduct metocean studies, simulate wave generation, diffraction, uprush, and overtopping, as well as hydrodynamic circulation and near- and far-field dispersion. Our analyses extend to dredging and dumping simulations, coastal geomorphological studies, and shoreline development/restoration modeling.



- **Living Shorelines and Coastal Restoration:** WSP implements natural and nature-based shoreline (NNBS) techniques, leveraging an extensive internal database of methods, success stories, lessons learned, costs, benefits, and suppliers. We specialize in artificial oyster reef living shoreline monitoring and implementation, long-term project monitoring, construction drawings and specifications, and bid support with comprehensive construction oversight.
- **Coastal Structures:** Our services include the design of revetments, causeways, groins, breakwaters, and toe/scour protection for beaches. We perform physical model testing to optimize designs, provide bid and construction support, and conduct condition assessments and repair/modification planning, including the development of mitigation measures for improved resilience.
- **Coastal Resiliency:** WSP conducts coastal resiliency assessments, climate change vulnerability risk evaluations, hurricane and cyclone simulations, tsunami propagation modeling, and coastal flooding simulations. We also develop mitigation strategies to address and adapt to evolving coastal risks.

Through our integrated approach, WSP ensures that coastal engineering and restoration projects are technically rigorous, resilient, and responsive to the unique challenges of each site, supporting successful outcomes for clients and communities nationwide.

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## 1.2 Structural Engineering

WSP applies advanced field methods and engineering expertise to inspect and evaluate piers, waterfront structures, and other marine infrastructures. Our multidisciplinary teams comprising engineer-divers, structural engineers, and survey specialists, use data-driven assessments to identify structural deficiencies and develop practical, defensible recommendations.

For projects such as the Holden Beach Pier, WSP focuses on delivering accurate condition evaluations of timber pile-supported systems through integrated above and below water inspections. Our approach combines direct observation, targeted testing, and structured documentation to clearly define existing conditions and deterioration patterns.

Our team translates field findings into actionable engineering insight, supporting repair prioritization and long-term asset management decisions. We emphasize constructability and real-world marine construction considerations, ensuring that recommended repairs and cost estimates are practical, achievable, and aligned with site conditions.

WSP's inspection and evaluation capabilities are supported by experienced structural professionals with extensive backgrounds in marine structure inspections and damage assessments. We coordinate closely with survey teams to produce clear documentation of deficiencies and structural conditions, including mapping and graphical representation to support reporting.

While WSP brings broad maritime design experience, our approach for this assignment is intentionally focused on condition assessment and decision support. We align technical evaluation with cost estimating to provide the Town with clear, reliable information necessary to evaluate repair versus replacement options and determine the most appropriate path forward for the pier.



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## 1.3 Regulatory Permitting and Environmental Compliance

WSP has substantial experience working with regulatory agencies that oversee coastal and estuarine environments in North Carolina, including the North Carolina Division of Coastal Management, North Carolina Division of Water Resources, North Carolina Division of Marine Fisheries, and the U.S. Army Corps of Engineers. Our teams routinely prepare and support CAMA Major Permits, Section 401 Water Quality Certifications, USACE General and Individual



Permits, and NEPA documentation. This expertise enables us to provide the Town of Holden Beach with comprehensive regulatory coordination, ensuring that restoration projects comply with all applicable state and federal requirements.

By proactively integrating permitting strategies early in the project lifecycle, WSP streamlines approvals and reduces schedule risks for shoreline and marsh restoration initiatives. Our deep understanding of regulatory processes and strong relationships with North Carolina agencies position us to deliver efficient permitting support and facilitate successful outcomes for the Town of Holden Beach projects.

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## 1.4 Underwater Inspection

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WSP provides specialized underwater inspection and condition assessment services for marine structures, including timber pile-supported piers similar to the Holden Beach Pier. Our approach integrates licensed engineers and experienced dive professionals to deliver accurate, efficient, and decision-focused evaluations of substructure conditions.

Our team performs targeted above and below water inspections that align directly with the RFQ scope, including visual and tactile evaluation of timber piles from the waterline to the mudline and focused Level III assessments. Inspection methods are designed to identify both external deterioration and internal decay, using techniques such as hammer soundings and resistance drilling where appropriate. These methods allow for reliable characterization of pile condition and support development of practical repair recommendations.

WSP's inspection team includes ADCI-certified commercial divers working alongside structural engineers to ensure findings are both field-verified and engineering-driven. This integrated approach improves the quality and consistency of inspection data and ensures that observed deficiencies are directly translated into meaningful structural evaluation and recommendations.



Our field operations are structured to maximize efficiency and safety while minimizing mobilization requirements. We deploy dedicated inspection crews equipped to perform work in tidal, low-visibility, and high-energy coastal environments typical of North Carolina barrier island settings. Equipment includes underwater video systems, communication systems, and the IML PD-500 Underwater Timber Resistance Drill to document and verify structural conditions.

Inspection data is collected systematically and documented through field notes, measurements, and photographs. Following fieldwork, WSP organizes findings by bent and pile to clearly identify the location and extent of deficiencies. This structured documentation supports preparation of bent elevation sketches and deficiency mapping required for the final report.

- Our inspection services for this project are focused on:
- Underwater condition assessment of timber piles
- Level II/III inspection, including cleaning and detailed evaluation
- Identification and documentation of structural deficiencies
- Targeted testing to evaluate internal pile condition
- Collection of photographic and field documentation to support reporting

WSP's approach is centered on delivering high-quality, defensible inspection data that directly supports the Town's project goals. Our findings provide the foundation for structural evaluation and the development of reliable cost estimates, enabling the Town to make informed decisions regarding repair or replacement of the pier.

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## 1.5 Surveying

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Accurate survey data and spatial analysis are foundational to successful coastal restoration. To enhance its offerings, WSP partners with McKim & Creed, Inc., an engineering and geomatics firm in Wilmington, North Carolina. Their licensed professionals provide advanced hydrographic and land surveying services, essential for coastal, municipal, and infrastructure projects along coastal North Carolina. McKim & Creed's expertise includes boundary, topographic,



ALTA/NSPS land title, right-of-way, hydrographic, bathymetric, and subsurface utility engineering surveys, supporting WSP's work with the Town of Holden Beach.

## 1.6 Organizational Capacity and Project Support

WSP's multidisciplinary structure enables us to assemble a focused, site-specific team with the technical depth and availability required to efficiently deliver the Holden Beach Pier inspection and reporting effort. Our organization provides the necessary resources to support rapid mobilization, high-quality field execution, and timely completion of deliverables within the Town's desired schedule.

WSP has prioritized staff from our Wilmington, North Carolina office, supported by experienced marine inspection and structural professionals from across our Southeast coastal practice, providing a strong combination of local coastal knowledge and specialized expertise in underwater inspection and timber pile evaluation. This integrated team is equipped to efficiently perform field inspections, evaluate structural conditions, and develop reliable cost estimates, with a focused approach that emphasizes clear communication, coordination, and consistent delivery of high-quality, decision-ready results for the Town.

Project Manager Jonathan Gerdes will lead the effort and serve as the primary point of contact for the Town. He will coordinate closely with the inspection team and subconsultants to ensure alignment with project goals, responsiveness to Town needs, and delivery of clear, decision-focused results. As demonstrated in this Statement of Qualifications, WSP's team, internal resources, and regional expertise provide the capacity to perform all required services for this assignment. Our streamlined team structure supports efficient execution, minimizes handoffs, and ensures accountability from field inspection through final reporting and cost estimating.



## 2. Approach and Methodology

WSP's approach to this project centers on close coordination with the Town of Holden Beach to develop a clear understanding of project objectives, inspection priorities, and decision-making needs for the Pier. At project initiation, WSP will confirm scope, available background information, and reporting expectations, while establishing communication protocols, roles, and schedule milestones to support efficient execution. This structured framework ensures alignment between the Town and project team from the outset and allows field efforts, structural evaluation, and cost estimating to be closely integrated.

Through this approach, WSP will deliver a comprehensive underwater inspection, condition assessment, and cost analysis that provides clear, defensible information to guide repair or replacement decisions. Emphasis is placed on efficient field mobilization, accurate data collection, and preparation of concise, decision-focused deliverables within the Town's desired timeframe. This methodology promotes transparency, minimizes uncertainty, and supports timely, well-informed decisions regarding the future of the pier.

---

### 2.1 Preliminary Coordination and Project Initiation

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WSP will develop a clear understanding of existing conditions and project priorities through a focused review of available data and early coordination with the Town. This effort will include evaluation of prior inspection reports, available drawings, publicly accessible information, and site-specific constraints that may influence inspection planning and execution. By reviewing existing documentation and identifying known deficiencies, WSP establishes a strong baseline for efficient and targeted fieldwork.

#### Preliminary Phase

WSP will initiate the project with a structured kickoff meeting to confirm scope, objectives, schedule, and communication protocols with Town staff. This collaborative approach ensures alignment on project expectations, reporting requirements, and decision-making needs from the outset. Ongoing coordination throughout the project will allow for timely resolution of issues and refinement of priorities as needed.

During this phase, WSP will:

- Review available background information to identify known deficiencies and inspection priorities
- Evaluate site conditions, including access limitations, tidal influences, and safety considerations
- Confirm deliverable expectations, reporting format, and level of detail required
- Coordinate with the Town regarding site access and any logistical requirements

WSP will use this information to develop a project-specific Inspection and Safety Plan defining personnel roles, inspection methods, equipment, sequencing, and safety procedures. This structured planning effort reduces uncertainty, improves field efficiency, and ensures that all inspection activities are performed safely and in alignment with the RFQ requirements.

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### 2.2 Regulatory and Agency Coordination

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Consistent coordination with regulatory agencies such as NCDCM, NCDMF, NCDWR, USACE, and the National Park Service is vital. This ongoing engagement clarifies permitting, identifies site constraints, refines restoration plans, and reduces permitting risks. For the projects within Cape Lookout National Seashore, WSP will incorporate National Environmental Policy Act (NEPA) coordination and USACE Individual Permit support. For other sites the other proposed site locations, permitting will be pursued through CAMA Major Permits, Section 401 Water Quality Certification, and USACE General Permits via the Joint 291 process. Through this proactive regulatory engagement, WSP will streamline the permitting process to ensure all activities are compliant with applicable regulations, supporting timely and effective project delivery.

## 2.3 Data Collection and Field Investigations

WSP will execute a focused field inspection program to collect accurate, defensible data on the condition of the pier substructure in support of structural evaluation and cost estimating. Field activities will be planned and performed efficiently to maximize data quality while minimizing mobilizations and site disruption.



- Level I: Visual and tactile inspection of timber piles from the high-water mark to the mudline to identify surface deterioration, damage, and biological degradation
- Level II: Detailed inspection of selected timber piles, at least 20% of in-water piles, that includes cleaning a 10-inch-high band over 75% of the pile perimeter at three elevations (waterline, mid-water column, and mudline) and hammer soundings to identify internal decay/voiding.
- Level III: In-depth inspection at each waterline Level II inspection location using the IML Resi PD-500 Underwater Timber Resistance Drill to quantify extent of internal decay/voiding
- Drill holes will be plugged with treated timber dowel or silicone to mitigate water intrusion.

Fieldwork will be performed by experienced engineer-divers using surface-supplied air or commercial scuba diving methods, depending on site conditions. Inspection crews are equipped to safely operate in tidal, low-visibility, and high-energy coastal environments typical of the Holden Beach shoreline. WSP's approach emphasizes efficient mobilization and completion of inspections within a single field effort wherever feasible, supporting both schedule and cost control.

### Data Documentation and Organization

WSP will collect and document inspection data using a structured and consistent methodology to ensure accuracy, traceability, and usability for reporting. Data collection will include:

- High-resolution photographic documentation above and below water using a clearwater box as needed.
- Detailed field notes describing observed conditions and deficiencies
- Measurements of deterioration, damage extent, and pile geometry
- Identification of deficiencies by pile and bent location
- Digital resistance drill data

All findings will be organized by structural elements to clearly establish the location, type, and severity of deficiencies. This structured approach supports development of bent elevation diagrams and graphical documentation required for the inspection report.

By linking field observations directly to documented locations and conditions, WSP ensures that all findings are clear, repeatable, and defensible. This level of documentation provides a reliable basis for subsequent structural evaluation and development of cost estimates, allowing the Town to make informed decisions regarding repair or replacement of the pier.

## 2.4 Reporting & Deliverables

Following completion of field inspections, WSP will evaluate the condition of the pier substructure and develop practical, decision-focused recommendations tailored to the observed conditions. Our evaluation will consider the extent and severity of deterioration, structural performance, and constructability to support realistic repair or replacement strategies.

WSP will develop planning-level opinions of probable cost directly tied to inspection findings. Cost estimates will reflect observed deficiencies, anticipated repair quantities, and marine construction considerations such as access, tides, and required equipment. Where appropriate, WSP will present repair-focused solutions alongside replacement considerations to provide the Town with a clear basis for comparing alternatives and planning next steps.



## Reporting and Deliverables

WSP will prepare a concise, well-organized inspection report that aligns with RFQ requirements and clearly communicates findings to both technical staff and decision-makers. The report will include:

- Purpose and scope of the inspection
- Description of inspection methods
- Documentation of existing conditions
- Summary of findings and identified deficiencies
- Drilling resistance profiles
- Above- and below-water photographs (as conditions allow)
- Bent elevation diagrams identifying the location and extent of deficiencies
- Structural evaluation and recommendations
- Opinion of probable cost to support repair and/or replacement decisions

The report will be structured to provide clear progression from field observations through engineering evaluation to actionable recommendations. Graphics, summaries, and organized data presentations will be used to enhance clarity, allowing the Town to readily understand the condition of the pier and make informed decisions regarding its future.

## Cost Management and Project Delivery

WSP understands that this effort is time-sensitive and centered on developing accurate, decision-support information to guide repair or replacement of the Holden Beach Pier. Our approach integrates disciplined project management, efficient field execution, and rigorous quality control to deliver reliable results within the Town's desired timeframe.

Project delivery will be guided by a project-specific management framework that defines roles, responsibilities, schedule milestones, and communication protocols. This approach ensures clear coordination between the inspection team and Town staff, proactive identification of risks, and consistent progress throughout the project. Regular internal coordination and quality reviews allow potential issues to be addressed early, minimizing delays and ensuring a smooth workflow from field inspection through final reporting.



WSP has a strong track record of delivering infrastructure assessments and inspection projects on schedule while maintaining high standards of quality. Our structured QA/QC process includes technical review of field data, validation of inspection findings, and independent review of cost estimates to ensure that all deliverables are accurate, complete, and defensible.

## Cost Estimating Approach

Cost estimating is a central component of this project and will be directly informed by observed field conditions. WSP develops planning-level opinions of probable cost using a transparent, bottom-up methodology that reflects real-world construction considerations.

Our approach includes:

- Quantifying repair needs based on documented deficiencies at each inspected pile and bent
- Developing component-level costs for repair, strengthening, or replacement elements
- Incorporating marine construction factors such as access limitations, tides, and specialized equipment
- Using recent regional cost data to reflect current market conditions
- Applying appropriate contingencies to account for uncertainty and potential hidden deterioration

This methodology ensures that cost estimates are grounded in field data, align with realistic construction practices, and provide the Town with a reliable basis for evaluating alternatives.

## Value-Based Decision Support

WSP integrates value engineering principles into our evaluation by identifying practical, cost-effective repair strategies that maintain structural performance while minimizing unnecessary expenditures. Our recommendations consider



constructability, durability, and anticipated service life, ensuring that proposed solutions balance upfront cost with long-term performance.

Rather than presenting isolated costs, WSP provides comparative insights into repair versus replacement considerations, allowing the Town to understand tradeoffs and select the most appropriate path forward. This approach supports informed, financially responsible decision-making without compromising safety or structural integrity.

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## 2.5 Schedule & Coordination

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WSP understands the Town's objective to complete the work within an accelerated timeframe and will structure project execution accordingly. Fieldwork, evaluation, and reporting will be coordinated to ensure efficient progression between phases and timely delivery of final results.

Our approach includes:

- Early mobilization and efficient execution of field inspections
- Parallel processing of documentation, evaluation, and cost estimating
- Regular communication with Town staff to provide updates and maintain alignment
- Prompt notification of significant findings identified during field activities
- Quality Assurance and Control

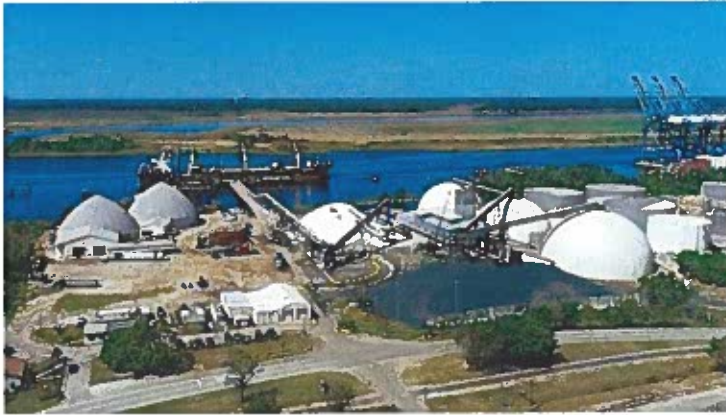


WSP will implement a project-specific QA/QC process to ensure the accuracy, completeness, and clarity of all deliverables. This process includes internal technical review of inspection data, independent validation of cost estimates, and final quality checks prior to submission.



### 3. Project Examples & References

#### Carolina Marine Terminal – Facilities Conditions Assessment



**Firm/Responsibility:** WSP

**Client/Owner:** Relay Terminals

**Engineering Fees:** \$56,638

**Project Dates:** 2025

**Location:** Wilmington, NC

**Reference:**

**Emil Marrero**

General Manager

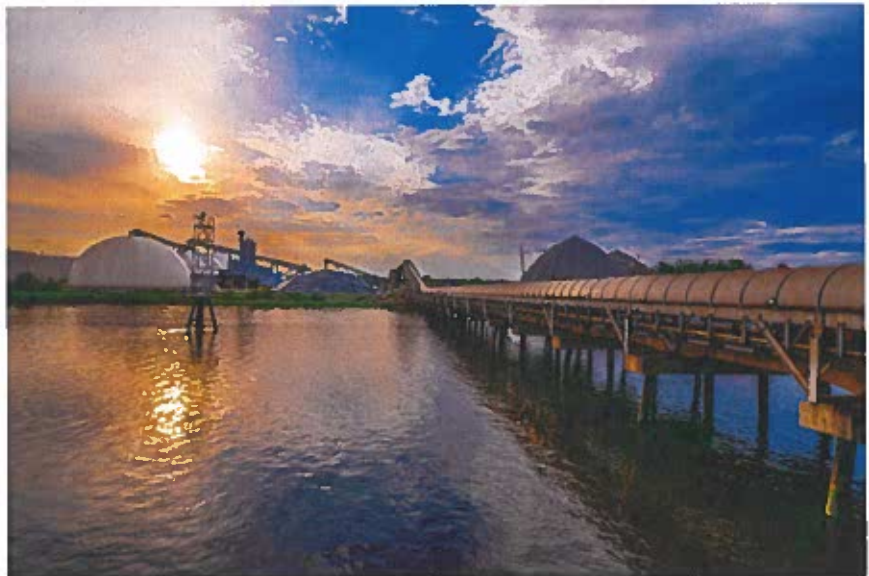
Relay Terminal

3330 River Rd., Wilmington, NC 28412

PH: (813) 416-2760

WSP USA Inc. performed a comprehensive facility condition assessment of the Wilmington Bulk Pier at Carolina Marine Terminal in Wilmington, North Carolina. The assessment included detailed inspections of the main pier, trestle, mooring dolphins, and associated structural and berthing components. Services encompassed both above-water and underwater evaluations using visual and hands-on inspection methods in accordance with ASCE standards to assess the condition of steel and concrete elements.

WSP documented existing deficiencies and conducted structural analyses to evaluate the load-carrying capacity of deteriorated components. Based on assessment findings, WSP developed concept-level repair recommendations, including bulkhead improvements and replacement of the concrete ramp, to support a targeted 50-year service life. The project also included preparation of construction cost estimates and development of supporting figures, field documentation, and inspection photographs to guide future preservation and rehabilitation efforts at the facility.





## F-Yard West Bulkhead and Ramp Study



**Firm/Responsibility:** WSP

**Client/Owner:** North Carolina Ports Authority

**Engineering Fees:** \$1,551,000

**Project Dates:** 2023

**Location:** Wilmington, North Carolina

**Reference:**

**Robert Kohler**

Engineering Department

North Carolina State Port Authority

PH: (910) 746-6412

WSP performed a comprehensive condition assessment of the Area F-Yard West Bulkhead and Ramp at the Port of Wilmington, North Carolina, based on inspections performed in August 2023. The study evaluated the structural integrity of the sheet pile bulkhead system, including piles, wales, tie rods, and associated components, as well as the adjacent concrete ramp. The assessment identified widespread corrosion and section loss in the steel sheet piles and wale system, and significant deterioration in the concrete wharf ramp. Structural analysis was performed to verify the bulkhead's capacity to support operational loading demands.

Based on these findings, WSP developed conceptual repair and upgrade recommendations to extend the service life of the facility to approximately 50 years. Key improvements include preserving the existing anchored bulkhead system, upgrading the cantilever wall to a tied-back configuration, encapsulating deteriorated sheet piles with a concrete cap system, addressing erosion voids behind the wall, and replacing the deteriorated concrete ramp. WSP also provided a rough order-of-magnitude construction cost for the recommended improvements, inclusive of construction, contingency, and associated project costs.

These recommendations provide a practical and phased approach to maintaining operational continuity while improving long-term structural performance and durability of this critical port infrastructure.





## Bridge Inspection and Evaluation



**Firm/Responsibility:** WSP

**Client/Owner:** SC Department of Transportation  
(Districts 5 & 7)

**Engineering Fees:** \$24,000,000

**Project Dates:** On-Going (*est. completion 2027*)

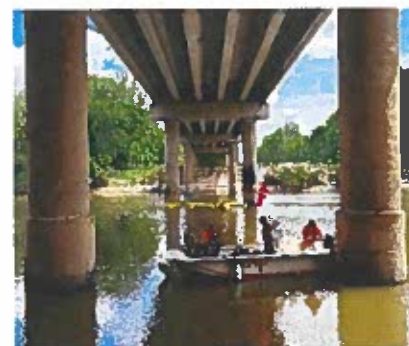
**Location:** District 5 & 7, SC

**Reference:**

**Emily Berry, PE**

Assistance Director of Bridges  
South Carolina Department of Transportation  
PH: (803) 737-1053

As a Prime WSP currently provides NBIS-compliant bridge inspection services for SCDOT Districts 5 and 7. Under this assignment, WSP has completed more than 1,800 routine inspections, 360 underwater inspections, 70 special inspections, 290 in-depth timber inspections, and 560 load ratings, supporting SCDOT's statewide inspection and asset management objectives. Through this work, WSP has developed extensive expertise with SCDOT's Bridge Management (BrM) reporting procedures, as well as a detailed working knowledge of the Bridge Inspection Guidance Document (BIGD) and Load Rating Guidance Document (LRGD). WSP has also provided technical feedback to SCDOT to inform ongoing updates and improvements to these guidance documents based on field experience and implementation insights.



To ensure consistent, accurate, and efficient deliverables, WSP developed project-specific tools and workflows tailored to SCDOT requirements, including Fast Field Forms to standardize inspections, SharePoint-based cloud systems to support multi-office collaboration, and GIS platforms for mobile data collection and large dataset management. These systems have improved data quality, enhanced efficiency, and strengthened coordination among field teams, project managers, and SCDOT District staff.



WSP also worked closely with SCDOT and District leadership to support the transition from BIO to BrM, including the upgrade to BrM version 7.1, ensuring minimal disruption while maintaining data integrity and reporting consistency.

With multiple office locations across the Carolinas, WSP rapidly mobilized inspection teams to support SCDOT's emergency response following Hurricane Helene. This regional presence enabled timely post-storm assessments, including more than 100 scour monitoring inspections, helping inform safety decisions, support recovery efforts, and protect the traveling public.

### Value to Metro

WSP brings proven experience delivering large-scale underwater and rail-related inspection programs under rigorous owner requirements. Key strengths include:

- Senior underwater inspection expertise
- Disciplined quality control processes
- Familiarity with evolving inspection standards and systems

These capabilities enable WMATA to receive reliable, consistent inspection data that supports safety, asset management, and informed decision-making.



## Palmetto Railways Underwater Bridge Inspections



**Firm/Responsibility:** WSP (sub to HDR)

**Client/Owner:** Palmetto Railways

**Engineering Fees:** \$35,656

**Project Dates:** 2023 - On-Going

**Location:** Charleston, South Carolina

**Reference:**

**Daniel Murdzia, PE**

HDR

North Charleston, South Carolina

PH: (843) 414.4214

WSP provided underwater bridge inspection services for Palmetto Railways in the Charleston, South Carolina region, completing initial underwater inspections for four railway bridges: Gough Creek, Huger Creek, Quinby Creek, and Noisette Creek. Inspections were performed in accordance with NBIS and AREMA guidelines, focusing on submerged substructure units (SSUs) from the high-water line to the channel bottom.

WSP served as Project Manager and Team Leader, overseeing planning, coordination, field execution, and report preparation. Field teams included ADCI-certified commercial divers and a certified diving supervisor, led by an experienced underwater bridge inspection team leader, ensuring safe and consistent operations.

WSP developed detailed, project-specific inspection reports for each bridge, including:

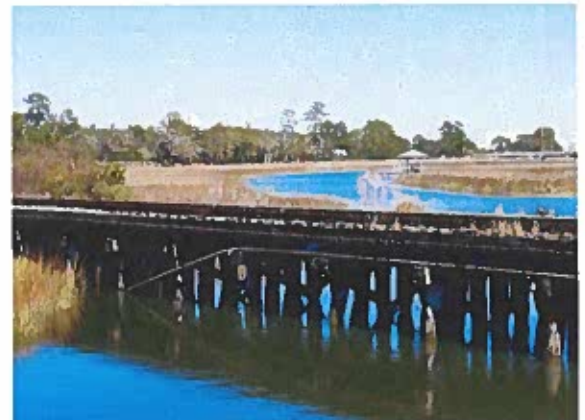
- Bridge descriptions and inventory photos
- Documented inspection findings and deterioration
- Streambed conditions and observed scour
- Streambed elevations at key structural elements
- Condition ratings for inspected components
- Plan and elevation drawings
- Summary of findings and repair recommendations

To ensure quality and consistency, WSP implemented a project-specific QA/QC plan aligned with NBIS and AREMA requirements. Reports were submitted electronically, with individual bridge reports delivered within 60 days of inspection and all deliverables completed by December 31, 2024.

This project demonstrates WSP's ability to deliver comprehensive underwater inspections for rail clients, combining strong field execution, experienced leadership, and defensible, high-quality documentation.

### Value to Metro

WSP's experience inspecting active railway bridges demonstrates our ability to safely execute underwater inspection programs in rail environments while maintaining rigorous QA/QC standards. Our delivery of NBIS- and SNBI-aligned documentation provides WMATA with reliable condition data to support safety, compliance, and asset management decisions.





## District Wide Bridge Inspection Services – Underwater QA/QC



**Firm/Responsibility:** WSP (Sub to Volkert)

**Client/Owner:** Florida DOT

**Engineering Fees:** \$3,606,740

**Project Dates:** 2023 – On-going

**Location:** Multiple Counties, Florida

**Reference:**

**Vicki Hitch**

Inspection Supervisor

Volkert, Inc.

PH: (813) 875-1365

WSP is serving as a subconsultant to Volkert on FDOT District 5's Districtwide State Bridge Inspection Services contract, providing QA/QC support for underwater bridge inspections. The contract includes inspections of approximately 370 bridges and culverts across multiple counties and within the SunRail Corridor.

WSP's role focuses on technical review and quality oversight of underwater inspection activities to ensure compliance with NBIS requirements and Florida Statutes. This includes reviewing inspection planning, field findings, and deliverables to confirm consistency, accuracy, and adherence to applicable standards.

Through this assignment, WSP supports a large, multi-year inspection program encompassing diverse structure types and site conditions, while also addressing on-call and emergency inspection needs. This effort highlights WSP's ability to provide independent QA/QC oversight and underwater inspection expertise in support of defensible, consistent inspection results.



### Value to Metro

WSP's experience providing independent QA/QC oversight on a large FDOT inspection program demonstrates our ability to ensure underwater inspection data is consistent, compliant, and technically defensible. By supporting NBIS compliance and providing senior-level review, WSP helps WMATA reduce risk, minimize rework, and rely on high-quality data for safety and asset management decisions.

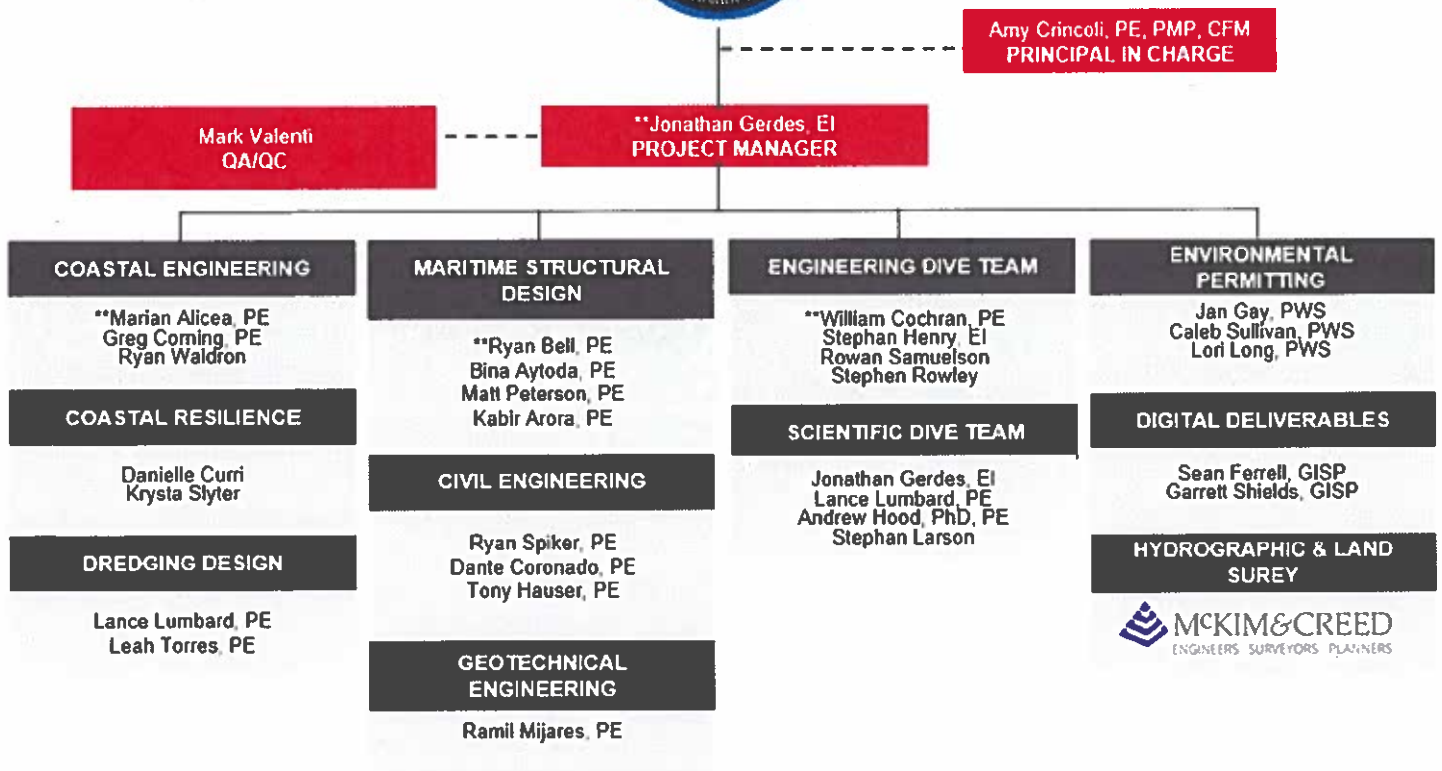
## 4. Project Team

WSP is fully committed to providing the staff availability and continuity needed to deliver this project within the proposed schedule. As a global engineering and professional services firm, WSP brings the depth and flexibility of a large organization while remaining strongly invested in supporting local communities. Our team-based delivery model intentionally pairs local, regionally based staff with specialized national expertise to ensure both responsiveness and technical excellence.

Within the Southeast, WSP maintains a strong bench of water resources and coastal resilience professionals. This project will be led by local staff in North Carolina and supported by nationally recognized living shoreline experts from WSP's Florida offices, allowing us to draw on relevant, proven experience while maintaining day-to-day availability for client coordination.

### \*\* Key Staff Resumes

-Additional resumes provided on request





## Appendix A – Resumes



## JONATHAN GERDES, EIT

*Project Manager, Civil Engineering  
Scientific Diver*



### CAREER SUMMARY

Experienced civil engineer specializing in environmental remediation, geotechnical engineering, and construction consulting. Adept at project management, permitting, system design implementation, and developing high-quality deliverables for clients and regulatory agencies. Skilled in coordinating complex engineering projects, ensuring compliance with regulators, and optimizing solutions across multidisciplinary teams for complex engineering projects.

### EDUCATION

|                                                                  |      |
|------------------------------------------------------------------|------|
| B.S., Civil Engineering, North Carolina State University         | 2009 |
| B.S., Environmental Engineering, North Carolina State University | 2011 |

### Years with the firm

2

### Years total

16

### Professional Qualifications

EIT

OSHA Hazwoper 40

OSHA Construction 10 & 30

Open Water (Nauv)

Nitrox (Nauv)

Advanced Open Water (Nauv)

Rescue Diver (Nauv)

Science & Tech Diver (Nauv)

ICS 100

ICS 200

ICS 300

IS 700

### PROFESSIONAL EXPERIENCE

- Town of Oak Island, Little Davis Canal Dredge Study (2025 – Ongoing)  
Mr. Gerdes managed a comprehensive dredging feasibility study for a coastal canal system, addressing navigation, flooding, and water quality issues. He led multidisciplinary teams, coordinated stakeholders, managed contracts, and ensured compliance with CAMA, USACE, and NCDEQ requirements. Responsibilities included overseeing surveys and sampling (including PFAS analysis), directing engineering analyses, guiding permitting strategy, and preparing a final report with cost estimates, funding recommendations, and public meeting materials for municipal decision-making.
- Confidential Client, Project Manager (2025 - Ongoing)  
Mr. Gerdes served as a Project Manager on multiple client projects, overseeing the design of electrical substations, flood plain analysis, dam decommissioning, stormwater reroute pipe networks, and permitting processes. He assembled and led multidisciplinary teams to develop innovative, practical engineering solutions while ensuring compliance with regulatory requirements. His responsibilities included managing project budgets, maintaining adherence to schedules, and facilitating seamless communication between design and construction phases. By aligning technical execution with client expectations and permitting standards.

### PROFESSIONAL EXPERIENCE

- Exelon-Constellation Energy, Scientific/Lead Diver, Kankakee, IL  
As Dive Team Lead and Scientific Diver, Mr. Gerdes managed and coordinated underwater mussel surveys and relocations in multiple rivers and reservoirs. He organized dive teams, oversaw safety protocols, and ensured regulatory compliance for threatened and endangered species. His responsibilities included planning and conducting in-water surveys using SCUBA and snorkeling, mapping areas of impact, setting transects, collecting water quality data, and supervising the identification and documentation of mussel species. Mr. Gerdes also handled daily quality control, verified data accuracy using Fulcrum, and maintained high standards for reporting and team performance during all dive operations.
- Chevron Petroleum, Baseline Water Strategy Assessment, Orla, TX  
Mr. Gerdes served as a Field Team Lead, Health & Safety (H&S) Coordinator, and Scientific Diver for the baseline assessment at Red Bluff Reservoir. His responsibilities included organizing and overseeing fieldwork, ensuring



## JONATHAN GERDES, EIT

*Project Manager, Civil Engineering  
Scientific Diver*

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compliance with regulatory requirements, and contributing to the development of guidance documents.

On-site work involved quarterly surface water sampling, sediment collection along the reservoir lakebed, and baseline ecological assessments, including benthic, zooplankton, phytoplankton, habitat evaluations, algal toxin analysis, and mussel surveys. As Dive Team Leader and Supervisor, Mr. Gerdes directed underwater mussel surveys in areas of potential impact, ensuring thorough data collection and adherence to established protocols. At the conclusion of each field event, he conducted rigorous data quality control (QC) to verify accuracy and completeness before publication to the client, maintaining scientific integrity and regulatory compliance.

- Chemung Water District, Mussel Relocation Survey, Elmira, NY  
Mr. Gerdes served as a Scientific Diver for an in-water freshwater mussel survey and relocation within the Chemung River, focusing on the quantitative and qualitative documentation of the Green Floater mussel species. Work was conducted using SCUBA and snorkeling to ensure comprehensive data collection.

Mr. Gerdes and Arcadis were responsible for mapping the Area of Direct Impact (ADI), laying transects along the river bottom, collecting water quality data, and conducting a full survey and documentation of state and federally listed threatened and endangered (T&E) mussel species. The primary objective was to confirm the presence of the Green Floater mussel and validate findings from a previous environmental survey conducted before site construction.

In addition to his scientific diving role, Mr. Gerdes served as a Team Lead Diver, Operations Safety Diver, and Dive Supervisor at various stages of site activities. At the conclusion of each workday, he ensured data accuracy by reviewing information collected and verifying the dive profiles of all team members, maintaining precision and reliability in reporting.

- Cal-Recycle, Camp Fire Removal Incident Response, Paradise, CA  
Mr. Gerdes served as an Environmental Unit Supervisor for a rotating team of 20-30 people in the Environmental Compliance project group. As an Environmental Unit Supervisor, Mr. Gerdes was tasked with managing, organizing, and scheduling all field tasks associated with Biological, Archaeological, and Air monitoring assessments for site-specific activities. Working closely with project managers, client representatives and regulators to troubleshoot and problem solve project impacts to keep the project progressing. Utilizing previous knowledge from fire response work the teams were setup and trained to provide the state with high level report of site-specific conditions for completing the next phase of site operations. Additional duties included data QC for all site activities, developing technological tools to monitoring AQI levels within project boundaries for safe work, interfacing with the State of California, providing the field command team with schedule updates and progress reports.



## RYAN BELL, PE

*Asst. Vice President, Ports and Marine Structural Engineer,  
Commercial Dive Supervisor*



### Years with the firm

9

### Years total

23

### Professional qualifications

*Professional Engineer:*

*Florida, 2007 (66425)*

*California, 2015 (84626)*

*North Carolina, 2025 (61901)*

*Washington, 2013 (50993)*

### Areas of practice

*Maritime Civil & Structural*

*Transportation Structural*

### Languages

*English*

### CAREER SUMMARY

With over 23 years of experience in marine and transportation infrastructure, Ryan Bell combines deep technical expertise with hands-on leadership to deliver complex waterfront and port projects from concept to completion. Licensed in four states and certified as a Commercial Diving Supervisor, he brings a unique perspective to the assessment, design, and management of both above- and underwater structures.

Ryan's portfolio includes the design and rehabilitation of bridges, port facilities, bulkheads, pile-supported piers, and cruise and cargo terminals. As Project Manager and Engineer of Record, he leads major upgrade programs encompassing heavy-load pavements, underground utilities, and crane infrastructure improvements—ensuring performance, safety, and long-term resilience.

Known for his strategic project oversight, Ryan excels in contract development, cost and schedule management, and quality assurance. His expertise in seaport planning, infrastructure assessments, and service-life evaluations helps clients make data-driven decisions for maintenance, rehabilitation, and capital investment.

Throughout his career, Ryan has guided multidisciplinary teams and collaborated with federal, state, and local agencies, port authorities, and private operators across the U.S. and abroad. His work reflects a commitment to technical excellence, innovation, and sustainable maritime development.

### EDUCATION

B.S., Civil Engineering, North Carolina State University 2002

Florida School of Commercial Diving, Commercial Surface Supplied  
Air Diver 2009

### ADDITIONAL TRAINING

• Florida School of Commercial Diving, Commercial Surface Supplied  
Air Diver 2009

• Federal Highway Administration-National Highway Institute  
(FHWA-NHI) 130091 Underwater Bridge Inspection 2015

• Association of Diving Contractors (ADCI) Dive Supervisor 2015

### PROFESSIONAL EXPERIENCE

- Relay Terminals dba Carolina Marine Terminals – Carolina Marine Terminal Wilmington Bulk Pier Assessment, Wilmington, NC (2025): Project Manager, Engineer of Record, and Engineer-Diver performing inspections, condition assessments, and development of repair/replacement recommendations for the Wilmington Bulk Pier at Carolina Marine Terminal in Wilmington, North Carolina. Responsibilities included comprehensive above-water and underwater inspections of the main pier, trestle, mooring dolphins, and associated structural and berthing elements using visual and hands-on methods. Documented existing deficiencies, performed structural analyses to assess the load-carrying capacity of deteriorated elements, and developed concept-level repair recommendations, including bulkhead upgrades and replacement of the concrete ramp, to support a 50-year service life. Prepared construction cost estimates and compiled supporting figures, field data, and inspection photographs to guide future preservation and rehabilitation efforts for the facility.
- North Carolina State Ports Authority – Area F West Yard Improvements, Wilmington, NC (2023): Project Manager / Senior Engineer and Engineer-Diver responsible for bulkhead assessment and facility improvements for 5.5-acre cargo



## RYAN BELL, PE

*Asst. Vice President, Ports and Marine Structural Engineer,  
Commercial Dive Supervisor*

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- yard upgrades. Performed waterside and landside bulkhead investigations; oversaw site/civil design, drainage, utilities, and lighting upgrades while maintaining active port access and operations during phased construction.
- Port Everglades Southport Turning Notch Expansion, Hollywood, FL (2018): Lead Marine Structural Engineer and Engineer-Diver supporting construction of 5,000 LF of bulkhead. Performed progress inspections of above-water and underwater construction, trained and supervised bulkhead inspection staff, and managed RFI, submittals, and QA/QC reporting.
  - Port Miami South Bulkhead Bays 148–155 Replacement Evaluation and Conceptual Design, Miami, FL (2021): Project Manager, Engineer of Record, and Engineer-Diver performing inspections, condition assessments, and development of repair/replacement alternatives with conceptual design for 700 LF of bulkhead and RO/RO pier.
  - Port Miami Wharf 1 Repair Design, Miami, FL: Project Manager, Engineer of Record, and Engineer-Diver leading design of repairs for bulkhead and pile-supported wharf. Included structural rehabilitation, protection systems, and upgrades to mooring and berthing components.
  - Port Everglades Biennial Underwater Inspection, Fort Lauderdale, FL (2017, 2019, 2021): Inspection Manager / Engineer-Diver leading underwater inspections of 27,000 LF of bulkheads, piers, and bridges as part of recurring bond inspections.
  - Pensacola Bay Bridge Replacement Hurricane Sally Damage Assessment, Pensacola, FL (2020): Bridge Inspection Manager leading rapid-response damage assessment following hurricane impacts. Managed above and underwater inspections using divers, sonar, and ROV systems.
  - Port Miami – Marine Structural Engineering On-Call Program, Miami, FL (2021–2026): Program Manager and Engineer of Record overseeing program management, work order development, subconsultant coordination, design leadership, and client account management. Projects included cargo yard upgrades, seawall repairs, hydrographic surveys, emergency inspections, lighting systems, fencing, hurricane analyses, and utility design.
  - Port Tampa Bay – Civil Engineering On-Call Program, Tampa Bay, FL (2021–2023): Program Manager and Engineer of Record responsible for program delivery, task order development, design oversight, and client coordination. Supported projects including seagrass monitoring, hurricane evacuation storage facilities, and port expansion to increase cargo capacity.
  - Port Miami – SFCT Container Yard Densification (eRTG Program), Miami, FL (2022): Project Manager & Engineer of Record leading modernization of terminal operations through high-density yard conversion and electrified crane systems. Managed civil, structural, and electrical design, including pavements, drainage, eRTG runways, and power/communications infrastructure, while maintaining continuous operations during phased construction.
  - Port Tampa Bay – Berth 214 Upland Development, Tampa, FL (2022): Project Manager & Engineer of Record directing design of a 30-acre container yard expansion. Led multidisciplinary design including pavements, lighting, electrical distribution, utilities, and site development; managed geotechnical/environmental coordination, permitting, and full design deliverables.
  - MLK Metrorail Station Parking Garage Condition Assessment, Miami, FL (2020): Project Manager and Lead Inspector performing structural assessment, identifying deficiencies, and developing repair recommendations with cost estimates and structural analysis.
  - West Sammamish River Bridge Underwater Inspection, Kenmore, WA (2014): Project Manager / Engineer-Diver leading underwater inspection and reporting, including planning, execution, and technical QA/QC.
  - Underwater Bridge Inspections, Utah (2014): Project Engineer supporting inspection of 60 bridges, including underwater evaluations, acoustic imaging, and report preparation.
  - Complex Bridge Evaluations and Load Ratings, Monrovia, Liberia (2012): Team Leader / Structural Engineer managing inspections and load ratings for multiple bridges, including planning, execution, and analysis.



## WILLIAM J. COCHRAN, P.E.

*Lead Consultant, Structural Engineering  
Commercial Diving Supervisor*



### CAREER SUMMARY

Mr. Cochran has extensive experience in underwater structural assessments and commercial diving throughout the United States and overseas. He served as an Underwater Engineer in the US Army, performing hydrographic surveys, repairs, and inspections for bridges, ports, and other marine structures. Following eight years of military service, William founded and operated a successful small business while earning a civil engineering degree. He gained experience as a roadway design engineer after college, focusing on rehabilitation of interstate roadways and designing ADA-compliant walkways. William is well versed in procedures, policies, and standards required to perform structural inspections and has managed projects in multiple States. He has planned, coordinated, and led over 150 underwater assessments for a variety of structure types since joining WSP in 2023.

### Years with the firm

3

### Years total

17

### Professional Qualifications

*Professional Engineer:*

*Florida, 2024 (98061)*

*Louisiana, 2024 (0049261)*

*Montana, 2025 (103905)*

*Nevada, 2024 (032610)*

*North Carolina, 2024 (58642)*

*South Carolina, 2022 (40849)*

*Virginia, 2023 (0402067562)*

*Washington D.C., Pending*

*Maryland, Pending*

*ADCI Air-Diving Supervisor,  
2024 (67434)*

*SPRAT, Level 1, 2023 (2302616)*

*Certified Bridge Inspector,  
Florida, 2022, No. 00674*

### Areas of Practice

*Transportation Bridges*

*Waterfront Facility Inspection*

### EDUCATION

B.S., Civil Engineering, Ohio State University

2018

US Army Engineer Diver 2nd Class, NDSTC

2008

### ADDITIONAL TRAINING

Fracture Critical Inspection Techniques for Steel Bridges, 2022 (NHI 130078)

Safety Inspection of In-Service Bridges, 2019 (NHI 130055)

Bridge Inspection Refresher Training, 2024 (NHI 130053)

Underwater Bridge Inspection, 2021 (NHI 130091)

Stream Stability and Scour at Highway Bridges, 2022 (NHI 135046)

Countermeasures Design for Bridge Scour and Stream Instability, 2022 (NHI 135048)

Confined Space Training, 2021

Adult First Aid/CPR/AED, 2023

Oxygen Administration, 2023

Remote Pilot (UAS), 2021

Boating Safety Course, California, 2019

### PROFESSIONAL EXPERIENCE

- SCDOT, Districts 5 & 7 Underwater Bridge Inspections (2023 – Ongoing)  
Manager and Team Leader for planning, coordinating, and executing underwater bridge inspections across Districts 5 and 7 (800+ structures). Implemented an updated scheduling approach following a major expansion of the underwater inventory to maintain regulatory compliance and optimize resources. Helped lead the transition of inspection reporting to AASHTOWare BrM to support 2022 NBIS requirements. Authored district-specific inspection and reporting guidance to improve consistency and quality of deliverables. Serves as Team Leader for underwater, special, emergency response, and routine bridge inspections, including drafting bridge-specific procedures for 100+ initial underwater inspections. Provides quality control review to confirm scope and reporting requirements are met, and manages monthly invoicing and budget tracking for underwater inspection services.
- Palmetto Railways, Underwater Bridge Inspections (2024)  
Project Manager for underwater inspection of four railway bridges in the Charleston, South Carolina region. Developed and executed a project-specific



## WILLIAM J. COCHRAN, P.E.

### *Lead Underwater Bridge Inspection Team Leader*

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Quality Control Plan to ensure inspections and reporting complied with AREMA guidelines and NBIS standards.

- SCDOT, Statewide Underwater Bridge Inspections (2019 – 2023)  
Served as Team Leader for underwater inspections, scour assessments, and routine bridge inspections statewide. Completed structural analysis for 20+ reinforced concrete box culverts, reinforced concrete slab bridges, and prestressed concrete girder structures.
- TxDOT, Statewide Underwater Bridge Inspections (2019 – 2023)  
Completed 30+ underwater bridge inspections in accordance with NBIS and TxDOT standards. Supported emergency response inspections following Tropical Storm Imelda, including damage assessment of the I-10 bridge over the San Jacinto River. Collected supplemental data using 3D acoustic imaging to document submerged conditions and communicate findings.
- TDOT, Region 1, Underwater Inspection of On-Systems Bridges (2022 – 2023)  
Deputy Project Manager for underwater inspections and acoustic imaging of 37 bridges in eastern Tennessee. Managed field operations under challenging flow and visibility conditions. Delivered NBIS-compliant reports including element-level ratings, scour evaluations, acoustic imagery, non-destructive testing results, and repair recommendations. Communicated findings to client, managed project finances, and oversaw quality control.
- Elizabeth City NC, Water-Church Street Pump Station Replacement Project (2023)  
Deputy Project Manager and inspection team leader for structural assessment of a complex underground stormwater conveyance system consisting of reinforced concrete culverts, steel pipe culverts, wet wells, and pipe arch culverts. Utilized non-destructive testing to evaluate remaining section capacity and prepared detailed condition assessment reports.
- CSX, Baltimore MD, In-Depth Inspection of Coal Terminal Pier Foundational Piles (2022)  
Performed underwater inspection of pier foundation piles, including marine growth removal and underwater concrete coring. Extracted and preserved core samples using specialized hydraulic equipment for laboratory analysis.
- PennDOT, Region 10, Underwater Bridge Inspection (2022)  
Completed underwater inspections of 20+ bridges of varying structural types while maintaining scope, schedule, and NBIS reporting requirements.
- TxDOT, Port Aransas Ferry Terminal Underwater Inspection (2021)  
Deputy Project Manager and inspection team leader for underwater assessment of ferry terminals on Harbor Island and Mustang Island. Inspected submerged components including HDPE dolphin piles, steel sheet pile bulkheads, concrete piles, and fender systems, and collected 2D acoustic imaging of key members. Managed scope, schedule, and budget and delivered inspection documentation in accordance with TxDOT requirements.
- LADOT, Statewide Underwater Bridge Inspections (2020 – 2021)  
Performed underwater inspections of the I-10 eastbound and westbound bridges and US 11 over Lake Pontchartrain. Utilized surface-supplied air and commercial scuba diving systems to inspect substructure units and document structural conditions in accordance with NBIS requirements.



## MARIAN G. ALICEA, PE

*Assistant Vice-President - Coastal Engineer*



### Years with firm

1 (2025)

### Years of experience

13 (2013)

### Professional qualifications

Professional Engineer

AZ - 79813

FL - 101318

NC - 061265

PR - 29441

SC - 44524

### Certificates

Coastal Engineering

Graduate Certificate - Old

Dominion University,

2020

### Office Location

Miami, Florida

### Languages:

Spanish

### CAREER SUMMARY

Marian Alicea is a coastal, civil, and environmental engineer with experience in storm risk management, shore stabilization, hazard mitigation, beach nourishment, flood resiliency studies, hydrodynamic numerical modeling, and physical model testing. Her project background includes navigational dredging, beneficial reuse of sediment, living shoreline and hybrid reef design, and climate adaptation planning. She integrates coastal process modeling, geospatial analysis, and simulations to inform resilient shoreline and infrastructure design, with expertise in wave attenuation, sediment transport, and ecosystem-based engineering. Her research has focused on hybrid reef breakwater stability and nature-based shoreline solutions, advancing strategies that unite technical performance with ecological function. She has also taught at the University of Miami on coastal water sampling, wave physics, oceanography methods, and marine animal observation, and developed a Rollins College course covering environmental regulations and procedures under the National Environmental Policy Act, the Clean Water Act, and the Endangered Species Act.

### EDUCATION

|                                                                   |             |
|-------------------------------------------------------------------|-------------|
| Doctor of Philosophy, Ocean Sciences, University of Miami         | In-progress |
| Master of Science, Civil Engineering, Virginia Tech               | 2018        |
| Master of Science, Environmental Engineering, Virginia Tech       | 2016        |
| Bachelor of Science, Civil Engineering, Kennesaw State University | 2013        |

### PROFESSIONAL EXPERIENCE

Marian's current professional experience include:

- Lee Stockton Island Hurricane Impact Study and Resilience Evaluation, Bahamas, 2/2026 – Current  
Coastal Engineer and primary reviewer of the Lee Stocking Island hurricane impact and resilience assessment. Marian reviews available natural hazard information for the island and advances a climate-informed approach to evaluating Category 5 hurricane risks to key facilities and supporting infrastructure. She supports assessment of hazard exposure, asset vulnerability, resilience, and recovery needs, and develops recommendations to strengthen design resilience and reduce operational disruption. She also helps shape a post-storm recovery plan to support restoration of island functions and improve decision-making for long-term resilience. The project supports resilience planning for Lee Stocking Island in Exuma, Bahamas. Total project cost: \$100,000. Size: 24 sq. km.
- PortMiami – Artificial Reef Design Criteria, Miami, Florida, 3/2026 – Current  
Coastal Engineer and primary author of the artificial reef design criteria for PortMiami. Marian leads the development of the technical framework used to evaluate and approve artificial reef modules for deployment in a complex marine setting. She establishes a clear, defensible, and implementation-ready standard that advances resilient design, regulatory alignment, long-term performance, and habitat value. Her work drives consistency in how reef systems are reviewed, designed, and deployed, and creates a strong foundation for future technical decisions. The project supports Miami-Dade County by setting the standard for reef deployment at PortMiami and establishing a precedent for similar artificial reef efforts along the Southeast Florida coast. Cost: \$250K. Size: 26.65 acres.
- Florida Keys Canal Restoration Program – Shoreline Management Practices & Materials Ranking Framework, Monroe County, Florida, 08/2025 – Current  
Coastal Engineer and Lead Author for the Shoreline Management Practices & Materials Ranking Framework Action Plan. Marian develops the technical framework and evaluation criteria to rank shoreline management practices and materials in Monroe County. She analyzes structural, vegetated, and hybrid shoreline stabilization approaches and produces guidance to balance habitat restoration, water quality improvement, and property protection. She coordinates with Monroe County, the Florida Department of Environmental



MARIAN G. ALICEA, PE

Assistant Vice-President - Coastal Engineer

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Protection, and the Florida Keys National Marine Sanctuary Steering Committee to ensure the criteria are practical, scientifically sound, and aligned with countywide resilience goals. Description: The project creates criteria and ranking methods for shoreline management practices to address tidal shoreline erosion in the Florida Keys, driven by storm surge, sea level rise, and habitat loss. The effort supports project prioritization for habitat restoration and water quality improvements across the nearshore waters and ecosystems of the Florida Keys National Marine Sanctuary. Deliverables include a technical report and a ranking database of shoreline management practices and materials, submitted to Monroe County and municipalities, with results shared at semiannual WQPP Steering Committee meetings. Cost: \$393,888. Size: 120-mile archipelago.

— Duck Key Breakwater Restoration and Living Shoreline Project, Monroe County, Florida, 05/2025 - Current

Coastal Engineer. Marian is designing a hybrid shoreline solution that combines segmented breakwaters with living shoreline features to reduce wave energy, control erosion, and enhance ecological resilience along Duck Key's vulnerable waterfront. She leads conceptual and preliminary design, selects materials and structural configurations that balance habitat restoration with shoreline protection, and coordinates with permitting agencies to ensure regulatory compliance. Her design integrates natural elements such as mangroves and seagrasses with engineered structures to deliver a sustainable, nature-based solution tailored to local conditions. Description: The Duck Key Breakwater and Living Shoreline Project is an ongoing Monroe County coastal resilience initiative designed to stabilize and protect vulnerable waterfront areas while restoring ecological function. The project incorporates segmented breakwaters to attenuate wave energy and integrates living shoreline elements, including mangroves and seagrasses, to provide erosion control, habitat creation, and water quality benefits. This hybrid design advances long-term shoreline protection and ecological resilience, supporting both community safety and ecosystem restoration objectives. Cost: \$3.5 million. Size: 1.5 miles of shoreline stabilized and protected.

— Long Key Living Shoreline Project, Monroe County, Florida, 05/2025 - Current

Coastal Engineer. Marian is leading the coastal engineering design of a living shoreline project along Long Key, focused on stabilizing eroding shorelines using nature-based solutions. She develops shoreline stabilization measures that incorporate saltmarsh vegetation, biodegradable materials, and strategically placed wave attenuation structures to reduce erosion, protect adjacent infrastructure, and restore coastal habitat. She also coordinates with project partners and permitting agencies to ensure regulatory compliance and alignment with Monroe County's broader coastal resilience strategy. Description: The Long Key Living Shoreline Project is an ongoing Monroe County coastal resilience initiative aimed at stabilizing shoreline segments vulnerable to erosion and sea level rise while enhancing ecological integrity. The project integrates saltmarsh vegetation and biodegradable stabilization materials with engineered wave attenuation structures to provide shoreline protection, improve habitat conditions, and sustain natural processes. The design approach emphasizes nature-based solutions that reduce reliance on hardened infrastructure, creating a sustainable framework for shoreline management in the Florida Keys. Cost: \$900,000. Size: 120 miles.



## Appendix B – Exhibits A-C

## **EXHIBIT A**

### **Execution Page**

By executing this Request for Qualifications ("RFQ"), the undersigned Vendor certifies that this response is submitted competitively and without collusion, that none of its officers or directors has been convicted of any violations under Chapter 78A of the North Carolina General Statutes (the North Carolina Securities Act), the Securities Act of 1933 or the Securities Exchange Act of 1934, and that it is not an ineligible vendor as set forth in N.C.G.S. § 143-59.1.

As required under N.C.G.S. § 143-48.5, the undersigned Vendor certifies that it, and each of its subcontractors, if any, for any contract awarded as a result of this RFQ, complies with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, including the requirement for each employer with more than 25 employees in North Carolina to verify the work authorization of its employees through the federal E-Verify system.

Proposals will be evaluated to rank the responding vendors in order of their qualifications and competence following which the Town will attempt to negotiate a fair and reasonable contract price with the best qualified vendor.

**The failure to execute/sign this response prior to its submittal shall render the response invalid such that it will be rejected. Late responses shall not be considered.**

Vendor: WSP USA Inc.

Street Address: 5710 Oleander Dr, Suite 110

City, State, and Zip: Wilmington, NC 28403

Mailing Address: 5710 Oleander Dr, Suite 110

City, State and Zip: Wilmington, NC 28403

Federal ID No. or Social Security No.: 11-1531569

Name/Title of Person Signing on Behalf of Vendor: Amy Crincoli, Senior Vice President

Signer's Telephone No.: 615-939-8529

Signer's Mobile No.: 615-939-8529

Signer's Email Address: amy.crowley@wsp.com Date: June 9, 2026

Vendor's Authorized Signature: 

**EXHIBIT B**

Name of Vendor: WSP USA Inc.

The undersigned hereby certifies that [check all applicable boxes]:

☒ Vendor is in sound financial condition.

☒ Vendor has no outstanding tax or judgment liens.

☒ Vendor is current in all amounts due for payments of federal and state taxes and required employment-related contributions and withholdings.

☒ Vendor is not the subject of any current litigation or findings of non-compliance under federal or state law.

☒ Vendor has not been the subject of any past or current litigation or findings in any past litigation which may impact in any way its ability to perform its obligations under an agreement resulting from this procurement process.

☒ The undersigned is authorized to make the foregoing statements on Vendor's behalf.

If one or more of the foregoing boxes is NOT checked, please set forth the reason in the space directly below.

Signature Amy Crincoli

Date June 9, 2025

Amy Crincoli, Senior Vice President

Printed name and title

## EXHIBIT C

Pursuant to N.C.G.S. § 143-64.31, the Town invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises, and non-profit work centers for the blind and severely disabled. This includes utilizing subcontractors to perform any required functions set forth in this RFQ. Any questions concerning NC HUB certification may be directed to the North Carolina Office of Historically Underutilized Businesses at (984) 236-0103 or [huboffice.doa@doa.nc.gov](mailto:huboffice.doa@doa.nc.gov).

1. Is Vendor a Historically Underutilized Business? ☒ Yes ☒ No

2. Is Vendor certified with North Carolina as a Historically Underutilized Business? ☒ Yes ☒ No

If so, state HUB classification: \_\_\_\_\_.

Amy Crincoli

Signature

June 9, 2026

Date

Amy Crincoli, Senior Vice President

Printed Name and Title



# Holden Beach

Statement of Qualifications for Development of  
Underwater Inspections Report  
for 441 Ocean Boulevard West  
June 10, 2026



2108 Capital Drive, Suite 103  
Wilmington, NC 28405  
P (910) 478-9915  
[Terracon.com/Wilmington-NC](http://Terracon.com/Wilmington-NC)



2108 Capital Drive, Suite 103  
Wilmington, NC 28405  
(910) 478-9915  
Terracon.com/Wilmington-NC

June 10, 2026

Holden Beach Town Hall  
Attn: Heather Finnell, Town Clerk  
110 Rothschild Street  
Holden Beach, NC 28462

Re: Statement of Qualifications for Development of Underwater Inspections Report for 441 Ocean Boulevard West

Dear Selection Committee,

The Town of Holden Beach is committed to making informed, responsible decisions that support the long-term resilience and value of its coastal assets. At Terracon, we share this commitment and bring a collaborative, solutions-focused approach to evaluating marine infrastructure and supporting strategic planning for repair or replacement. We are excited for the opportunity to assist the Town in assessing the condition of its pier and providing clear, reliable insight to guide future investment decisions.

**Firm Profile:** Terracon is an employee-owned, multi-discipline engineering consulting firm founded in 1965, across 280 locations nationwide, including seven offices in North Carolina who can lend support as needed. Our team includes engineers, scientists, architects, and field professionals who deliver integrated, data-driven solutions throughout the project lifecycle from site selection and design through construction and ongoing facility support. Currently ranked 19 out of 500 design firms by Engineering News-Record, Terracon has grown through both organic expansion and the strategic acquisition of more than 60 firms while maintaining a strong commitment to safety, technical excellence, and client service. We have more than 8,000 employees nationwide including professionals across the below disciplines:

- Archaeologists - 156
- Architects - 20
- Biologists - 91
- CADD Technicians - 29
- Civil/Geotechnical/Foundations/Soils Professionals - 774
- Construction Inspectors - 210
- Environmental Engineers - 285
- Environmental ScientistS/NEPA - 591
- GIS Specialists - 37
- Geologists - 295
- Industrial Hygienists - 42
- Landscape Architects - 10
- Construction Materials/Pavement Professionals - 622
- Safety/Occupational Health Engineers - 16
- Technicians/Analysts (Testing Lab) - 2,615
- Drillers - 423
- Engineering Managers - 144
- Building Enclosure Cx/Inspectors - 96
- Geophysicists - 82
- Historic Preservationists - 26
- Other Employees - 1,454

Explore with us



2108 Capital Drive, Suite 103  
Wilmington, NC 28405  
(910) 478-9915  
Terracon.com/Wilmington-NC

**Specialized Marine Inspection Capabilities Delivered In-House:** Terracon offers the Town a distinct advantage through our specialized dive team, which allows us to perform underwater structural inspections entirely in-house. Our certified professionals bring extensive experience in marine and waterfront structures, including timber pile assessments and Level II/III inspections aligned with industry standards. By self-performing these services, we maintain direct control over quality, safety, and schedule, reducing reliance on third parties and ensuring seamless coordination between field observations and engineering evaluation. Our team is equipped with specialized tools—including underwater inspection and timber resistance drilling equipment—allowing us to efficiently assess structural conditions and document findings with precision.

**Integrated, Multi-Disciplinary Approach for Coastal Infrastructure:** Terracon provides a comprehensive suite of services—including structural and coastal engineering, environmental permitting (including CAMA), surveying, and cost estimating—delivered through a coordinated, multi-disciplinary team. This integrated approach ensures that inspection findings are immediately translated into actionable recommendations and reliable cost opinions, supporting the Town's decision-making process regarding repair or replacement of the pier. By housing these capabilities within a single, accountable team, we streamline communication, reduce project risk, and deliver consistent, high-quality results from initial inspection through final reporting.

**Experienced, Responsive Team with Coastal Expertise:** Led by Adam Wolf, Project Manager and Point of Contact, our team brings together professionals with direct experience in coastal North Carolina and similar marine environments. We understand the challenges associated with underwater visibility, marine growth, and exposure conditions, and we tailor our approach accordingly to ensure accurate and defensible findings. Our team is committed to responsive service, clear communication, and collaboration with Town staff throughout the project. We take pride in delivering concise, easy-to-use reports that provide the Town with the clarity needed to confidently plan next steps for this critical asset.

We look forward to the opportunity to work with Holden Beach. Should you have any questions or concerns, please reach out at the information below. Thank you for your consideration of this important contract.

Sincerely,  
Terracon Consultants, Inc.

A handwritten signature in black ink, appearing to read 'Adam Wolf'.

Adam Wolf, Project Manager, Primary Point of Contact  
adam.wolf@terracon.com  
Direct: (513) 612-9113  
Mobile: (513) 739-5909

A handwritten signature in black ink, appearing to read 'Justin DeNicola'.

Justin DeNicola, P.E., Operations Manager  
justin.denicola@terracon.com  
Direct: (910) 939-7248  
Mobile: (404) 626-7824

## Key Project Team

### Adam Wolf, Underwater Inspection Diver

**Role:** Project Management and Primary Point of Contact

Adam is an experienced diver and will serve as an underwater inspection diver.

**Education/Certifications/Training:** Associates of Applied Science Degree, Construction Management Cincinnati State Technical & Community College; ANSI/ACDE 01-98, Commercial Diving, 2007, The Ocean Corporation, Houston, Texas

**Project Experience:** Ohio Department of Transportation VAR-District 8 Underwater Bridge Inspection, Hamilton, Butler, Greene, & Warren Counties; GRE-Bridge St. Bridge, Greene County Engineers Office, Underwater Bridge Inspection, Greene County, OH; Hamilton County Engineers Office, Bridge Inspection Program, Hamilton County, OH; Arrow Lake Dam Underwater Inspection, TN; Missouri St. Rt. 5 Bridge, Hurricane Deck Bridge; West Virginia Department of Transportation, Division of Highways - Bridge Inspection Program

### Brad Walden, CWI, Task Manager/Team Lead

Brad is an experienced Task Manager/Team Lead with over 30 years of experience.

**Education/Certifications/Training:** Associates Degree, Criminal Justice, 1985, Eastern Kentucky University; ANSI/ACDE 01-98, Commercial Diving, 1997, Divers Academy International; American Welding Society, 03040561 Certified Welding Inspector; FHWA-NHI-130055 Safety Inspection of In-Service Bridges

**Project Experience:** Texas Department of Transportation Underwater Bridge Inspection Program, Ohio Department of Transportation VAR-District 8 Underwater Bridge Inspection, Hamilton, Butler, Greene, & Warren Counties; Connecticut Department of Transportation (CTDOT), Pile Investigation – State Route 136, Westport, CT; North Hero Underwater Bridge Substructure Assessment, North Hero, VT; New Hampshire Department of Transportation (NHDOT), Statewide Underwater Inspection Program; GRE-Bridge St. Bridge, Greene County Engineers Office, Underwater Bridge Inspection, Greene County, OH; Hamilton County Engineers Office, Bridge Inspection Program, Hamilton County, OH; Greater Cincinnati Water Works, Inspection of Service Access Bridge, Ft Thomas, KY; Muskingum County Engineers Office Bridge Inspection Program, Muskingum County, OH; Missouri St. Rt. 5 Bridge, Hurricane Deck Bridge; West Virginia Department of Transportation, Division of Highways - Bridge Inspection Program; Bridge Inspection Program - Delaware County Engineers Office, Delaware County, OH; Bridge Inspection Program - Franklin County Engineers Office, Franklin County, OH; Bridge Inspection Program - Lake County Engineers Office, Lake County, OH; Portsmouth Naval Shipyard, Kittery, ME; Hydroelectric Plant Underwater Inspection Program – American Electric Power of Indiana and Michigan

### Mason Evans, Underwater Inspection Diver

Mason is an experienced diver and will serve as an underwater inspection diver.

**Education/Certifications/Training:** Commercial Diver, Divers Institute of Technology; B.A., Finance, University of Cincinnati; ADCI-Entry Level Tender/Diver; DCBC – Unrestricted Surface Supplied Diver; 40 Hr OSHA HAZWOPER; D.I.T. Qualified Rigger; Kirby Morgan Helmet and Band Mask Operator; Nitrox Certified PADI/Naui; National Safety Council Job Safety Analysis Identifying & Controlling Hazards; Fill Station Technician; First Aid & CPR

**Project Experience:** Texas Department of Transportation Underwater Bridge Inspection Program; Connecticut Department of Transportation (CTDOT) Statewide Off-System Railroad Bridge Wide Underwater Inspection; Ohio Department of Transportation VAR-District 8 Underwater Bridge Inspection (Hamilton, Butler, Greene, & Warren Counties)

### **Kyle Gallivan, Engineering Technician**

Kyle is a Construction Services Engineering Technician based in Terracon's Cincinnati, Ohio office, supporting materials testing and inspection on a variety of commercial and industrial construction projects.

**Education/Certifications/Training:** University of Cincinnati (Criminal Justice and Sociology coursework); American Concrete Institute (ACI) Concrete Testing Level I; KYTC Grade and Drain Level I; KYTC KEPSC for Roadway Inspectors; KYTC Structures Inspector Level I; KYTC Highway Structural Inspection Level I; KYTC Work Zone Traffic Control Technician; KYTC Asphalt Paving Best Practices; KYTC Aggregate Sampling Technician; ATI 101 Portable Nuclear Density/Moisture Gauge; NETTCP Soil and Aggregate Inspector

**Project Experience:** DHL B777 Hangar, Hebron, KY – Materials testing and observation for a 55-acre aircraft maintenance facility including foundations, slab-on-grade, earthwork, and pavement; Jeffersonville Data Center, Jeffersonville, IN – Routine concrete testing and sampling for large-scale data center construction involving multiple contractors; Home Depot, Broken Arrow, OK – Provided inspection services and supported training of new staff; Montgomery Quarters Development, Cincinnati, OH – Materials testing and observation for a mixed-use development including post-tensioned parking garage, deep and shallow foundations, and structural concrete systems

### **Peter Lytle, P.E., Materials Engineering Department Manager**

Peter is a Materials Engineering Department Manager with experience in construction materials testing, non-destructive evaluation, and structural condition assessments. He specializes in evaluating concrete and structural systems and developing practical repair recommendations for aging infrastructure.

**Education/Certifications/Training:** B.S., Civil Engineering, University of Cincinnati; Post-Tensioning Institute Level 2 – Unbonded PT; Firestop Special Inspector; NCEES EI; trained in Windsor Probe, Rebound Hammer, corrosion potential, Ferroskan, and ground penetrating radar (GPR)

**Project Experience:** Materials Engineering Projects (Various Clients), Cincinnati, OH – Managed 150+ materials testing and non-destructive evaluation projects including concrete condition assessments and GPR scanning; Construction Materials Testing Projects (Various Clients), Cincinnati, OH – Managed 30+ inspection and testing projects; GCWW Mill Creek Barrier Dam Evaluation, Cincinnati, OH – Condition assessment and repair coordination; GE Aviation Test Cell #44 Assessment, Cincinnati, OH – Concrete condition assessment and repair recommendations; Colorado Springs Box Girder Bridge Rehabilitation, CO – Structural evaluation and corrosion mitigation recommendations; Wright-Patterson AFB Steam Tunnel Repairs, Dayton, OH – Confined space condition assessment; Target Floor Slab Assessment (Multiple Locations) – Managed multi-state slab evaluations; Erlanger Commerce Center Slab Investigation, KY – Non-destructive evaluation using GPR and elevation surveys

### **Wil V. Beckwith, P.E., Group Manager, Materials Engineer**

Wil is a materials engineering manager with 20+ years of experience in construction materials testing, special inspections, and structural evaluations. He manages testing, QA/QC, and reporting across earthwork, concrete, steel, and masonry projects, with expertise in non-destructive evaluation.

**Education/Certifications/Training:** B.S., Civil Engineering, University of Cincinnati; PE (KY, OH, IN); NRMCA Batch Plant Inspector; FHWA Bridge Inspector; ACI Concrete Field & Strength Testing; OSHA 10-Hour and Confined Space

**Project Experience:** Flood Levee Alteration, KY – Managed testing and inspection during levee excavation; Racine Lock and Dam, WV – Coatings inspection for aging hydroelectric structure; Aqua on the Levee, KY – Special inspections for post-tensioned structure; Eastern State Hospital, KY – Managed testing for multi-building healthcare campus; Belterra Park, OH – QA/QC for large-scale construction; Bridge Evaluations (WV DOH) – Non-destructive testing and reporting; Corrosion Analysis, Bahamas – Reinforcing steel evaluation using electrochemical methods; Hurricane Damage Assessments, Puerto Rico & St. Croix – Evaluation of concrete and reinforcing steel following storm events

### **Timothy P. Jester, P.E., Senior Engineer / Senior Project Engineer**

Tim is a senior structural engineer with over 30 years of experience in the design, inspection, and evaluation of bridges, buildings, and transportation-related structures. His background includes structural rehabilitation, code compliance, and condition assessments for complex infrastructure and public facilities.

**Education/Certifications/Training:** M.S., Civil Engineering, Lehigh University; Professional Engineer – Virginia

**Project Experience:** Hampton Fire Station #3, VA – Structural design and inspection services for 17,000 SF fire station facility; Petersburg Police Headquarters, VA – Structural evaluation and retrofit design for adaptive reuse of existing building; James City County Law Enforcement Center, VA – Structural design for 40,000 SF facility with atrium and specialty support spaces; James City County Recreation Center Natatorium, VA – Structural condition assessment and inspection of existing roof system; Williamsburg National Bank Building, VA – Structural design for building modifications including new openings and load path review

### **Gregg V. Piazza, P.E., Coastal Engineer**

Gregg is a coastal engineer with 32+ years of experience in geotechnical design for marine and waterfront infrastructure, specializing in deep foundations, bulkheads, and pier systems for complex coastal projects.

**Education/Certifications/Training:** M.E., Civil Engineering, Stevens Institute of Technology; B.S., Applied Mathematics; PE – DC, MD, NJ, VA

**Project Experience:** USACE Old Hickory Stoplog Storage Slab, TN – Micropile design for slab support over unsuitable soils; U.S. Naval Academy Cyber Security Center, MD – Deep foundation and waterfront design; Bush Terminal Building 24, NY – Emergency underpinning and stabilization of waterfront structure; Bay Park Flood Protection, NY – Sheet pile-supported flood protection system; NJ Transit Hoboken Ferry Terminal, NJ – Design and inspection of pile foundations, bulkheads, and waterfront structures

### **Justin L. DeNicola, P.E., Operations Manager / Geotechnical Engineer**

Justin manages Terracon's Wilmington office and has 10+ years of geotechnical experience, including subsurface exploration, foundation design, and ground improvement for infrastructure and coastal projects.

#### **Education/Certifications/Training:**

B.S., Civil Engineering, Clemson University; PE – NC; OSHA 10-Hour; TWIC

**Project Experience:** Duke Energy Projects, NC & SC – Subsurface investigations for transmission, substations, and solar; Rail to Trail, Wilmington, NC – Geotechnical PM for urban greenway; Port of Morehead City, NC – Investigation and settlement mitigation for marine facility; Winston-Salem Northern Beltway, NC – Geotechnical design for roadway and bridges; Windstream HDD Crossing, Wilmington, NC – Over-water drilling for fiber installation beneath Cape Fear River

## Relevant Experience

### Materials Underwater Inspections

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When you need materials inspections and general assessments of project sites located underwater, Terracon can help. Terracon's professional dive team is ready to assist you from pipelines, bridges, and dams to complex wastewater treatment plants and from freezing waters to murky ponds with unusual visitor encounters to zero visibility.

As one of the few companies with in-house professional engineer divers who possess materials technical competencies to conduct underwater inspections, our certified dive team members are knowledgeable in concrete, soil, structural steel, and endangered species protocol. We know how to articulate defects and discontinuities, i.e., distressed concrete, cracks, or anything that would affect structural integrity, seen underwater. Our professionals are also equipped to enter contaminated or potable water facilities to assist local municipalities with infrastructure assessments.



Through video and other data collection instrumentation, Terracon divers capture information critical for public safety and help you monitor structural integrity below the waterline. Remote inspections are sometimes conducted using side-scanning sonar, offering a two-dimensional image of a river or lake bottom and a better underwater perspective of bridges and dams. The use of remotely operated vehicles equipped with cameras, lights, and transmitting images allows us to investigate areas too deep for humans to safely dive themselves.

We pre-task plan for every dive as each dive site is different. We calculate tide changes, monitoring outgoing and incoming tides to gauge hazards and evaluate safe accessibility. All underwater activities follow safe diving practices specified by the Occupational Safety

and Health Administration (OSHA), U.S. Coast Guard (USCG), Army Corps of Engineers, and Association of Diving Contractors International. Additionally, a thorough site-specific emergency action plan is prepared for each dive event.

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***Terracon is one of the few companies with in-house professional engineers and divers who possess the technical competencies in materials services to conduct underwater inspections.***

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Our certified, trained professionals conduct materials inspection and assessment of:

- FHA Bridge Substructure Inspections – Level I, II, III Bridge Inspections in accordance with Federal Highway Administration National Bridge Inspection Standards
- Underwater Quality Assurance/Quality Control
- Intake, outfall structures
- Lock and dam structures
- Ecological and environmental surveys
- Potable water storage facilities
- Fire suppression water storage facilities
- Wastewater treatment facilities

# Materials Underwater Inspections

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- Chemical and powerhouse facilities
- Industrial cooling and reclamation chambers/pits
- Pipelines, to include penetration
- Riverfront structures and marine terminals
- Vessels, to include detailed hull and running gear
- Asset recovery
- Unmanned inspection through Remotely Operated Vehicle (ROV)
- Hydrographic mapping

Other underwater service capabilities:

- Potable water diving
- Contaminated water diving
- Video/Digital photography
- Welding
- Nondestructive testing – ultrasonic testing
- Partial and destructive sampling
- Coatings
- Coating thickness
- Debris removal
- Sediment removal



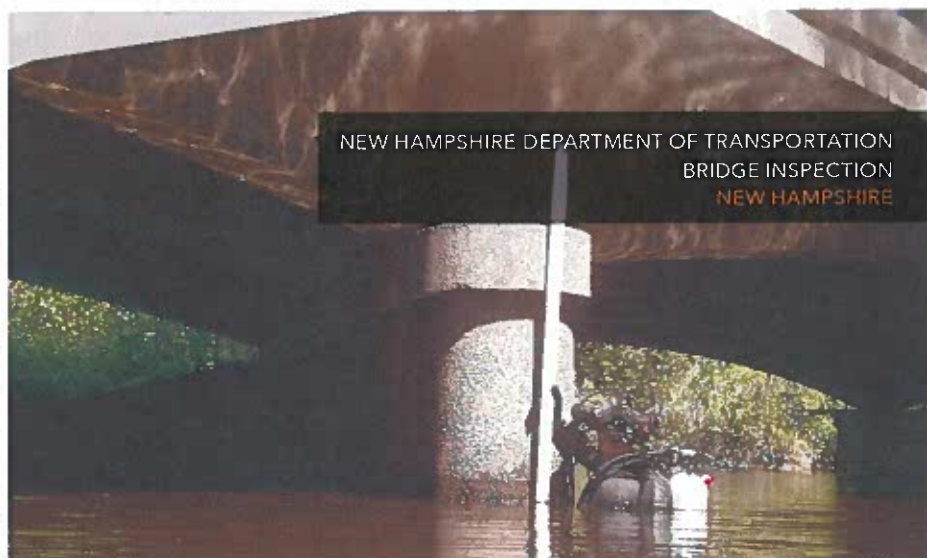
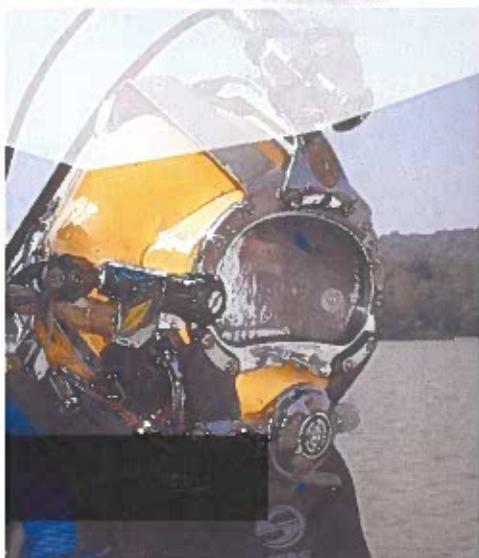
**Potable water storage facilities**



**Ecological and environmental surveys**



**Bridge substructure inspections**



## Materials Services | Diving

Just as above-ground structures require periodic monitoring and maintenance, so do underwater structures. Owners must determine existing or baseline structure condition so they can prioritize repairs to ensure long-term safety and durability

### Experience and Expertise

Terracon's underwater capabilities complement our environmental, geotechnical, and materials engineering services. Utilizing surface-supplied diving equipment (hard hat diving) along with trained and certified commercial divers and professional engineers, we perform inspection and testing, design, installation, and repair of underwater components.

Terracon provides clients with access to underwater structures and information necessary to complete projects while assuring the integrity of structural elements below the waterline.

### ■ Materials Inspection/ Assessments:

- FHWA Bridge Substructure Inspections (Level I, II, III)
- Culverts, Tunnels
- Underwater Quality Assurance/ Quality Control
- Intake, Outfall Structures
- Lock and Dam Structures
- Ecological/Environmental Surveys
- Potable/Fire Suppression Water Storage Facilities
- Wastewater Treatment Facilities
- Chemical and Powerhouse Facilities
- Industrial Cooling and Reclamation/Chambers/Pits
- Pipelines (to include Penetration)
- Marine Terminals/Mooring Cells
- Docks, Marinas, and Riverfront Structures
- Vessels (Detailed Hull and Running Gear Inspections)
- Cofferdams and Caissons
- Asset Recovery
- Ground Collector Wells
- Dam Sluice Gate Valve Inspections

### ■ Construction Materials Inspection/ Assessments:

- Cleaning and Repair Maintenance
- Potable Water Diving
- Contaminated Water Diving
- Video/Digital Photography
- Hydrographic Mapping
- Nondestructive Testing
- Ultrasonic Thickness/Shear Wave
- Partial Destructive Sampling
- Coating Thickness
- Physical Condition and Adhesion
- Coating Application and Repair
- Concrete Inspection
- Traveling Water Screen
- Debris and Sediment Removal
- Maintenance of Structural Elements and Equipment, Piping
- Unmanned Inspection through Remotely Operated Vehicle (RDV)
- Welding/Cutting/Burning



### Connecticut Department of Transportation Pile Investigation - State Route 135 Westport, Connecticut

Terracon was contracted to remove fiberglass jackets and concrete encasements from three existing piles at Pier 2 to inspect bridge No. 01349 which carries State Route 136 over the Saugatuck River in Westport, CT.

Terracon removed the fiberglass jackets from around the pile and an 18 to 24-inch half-circle section of the concrete was chipped out around three piles located along the east side of Pier 2. Before concrete removal began, Terracon positioned debris containment around each pile to prevent materials from entering the waterway. Crews then used a ferroskan unit to locate the reinforcing steel bars within the concrete.

To get accurate test results, the concrete that was removed from the piles was located in an area between the low-tide and high-tide elevations. Crews used grinding wheels, chipping hammers, and hand tools to remove the fiberglass jackets as well as the concrete. Existing reinforcing steel and steel piles were not disturbed during the removal process. Once the concrete was removed, visual inspections of the exposed steel piles were performed and then restored by replacing concrete where it had been removed.

Client:  
Connecticut  
Department of  
Transportation

Reference:  
Thomas Ryan  
Close, Jensen and  
Miller, P.C.  
P (860) 563-9375  
tryan@cjmpc.com

Date:  
2017

Project Value:  
\$145,350

Highlights:  
Destructive  
bridge testing  
with no ecological  
disruptions and  
multiple boats  
utilized without  
disruption to  
recreational  
activities



### Welch's Creek Bridge Assessment Jamesville, North Carolina

Terracon conducted a comprehensive assessment of the Welch's Creek Bridge, evaluating both above- and below-water conditions. Following the closure of this private bridge, the owner has expressed an interest in restoring it to service. Project management was led by Adam A. Wolf and Jason T. Hickey, P.E. A certified three-person dive team performed inspections utilizing commercial SCUBA equipment, with significant emphasis placed on the tactile assessment of heavily deteriorated wooden components. Advanced technologies, including Ground Penetrating Radar (GPR) and LiDAR scanning, were employed to supplement conventional inspection techniques. Additionally, five concrete core samples were obtained for laboratory-based compressive strength and petrographic analysis.

#### Wood Inspection Findings:

- Timber piles and pile caps exhibited extensive rot, hollow sounding, section loss, and termite damage.
- Many timber elements showed advanced deterioration at the mud line and above, with some piles and caps recommended for immediate replacement.
- Stringer beams displayed heavy rot, splits, shakes, and checking, compromising structural integrity.
- Expansion joints and deck sections allowed water infiltration, accelerating wood deterioration.
- Steel beams were generally sound but showed failed protective coatings and corrosion.

The bridge received a National Highway Administration rating of 1 ("Imminent" Failure Condition) for both superstructure and substructure, indicating an urgent need for intervention. Recommendations included replacement of unsound timber elements, repair of expansion joints, and consideration of full replacement or major rehabilitation.

Client:  
Hunt Guillot &  
Associates, LLC

Reference:  
Arthur Welker  
(804) 704-7457  
awelker@hga-llc.  
com

Date:  
2025

Project Value:  
\$31,193

Highlights:  
Extensive  
underwater and  
tactile inspection of  
timber elements  
Visual, GPR, and  
LiDAR scanning of  
the superstructure  
Concrete coring  
and petrographic  
analysis of the  
concrete deck



Image Credit: Beaufort Harbour

## Underwater Assessment Front Street Bulkhead Beaufort, North Carolina

Terracon, a seasoned entity with over a 50 years of expertise in material testing and evaluations, conducted a comprehensive assessment of the Front Street bulkhead wall below the waterline and the visible tie rods attached to the bulkhead cap. The objective was to collect critical data regarding the condition of these elements.

### Scope of Services:

Our staff of commercial divers are qualified engineering technicians and professional engineers with experience in assessing various material types such as concrete, masonry, steel, and timber. Their assessment targeted the region spanning approximately 2 feet above the waterline down to the mudline, focusing on the concrete bulkhead. The bulkhead structure was divided into three segments: Right Wing (22 feet), Left Wing (81 feet), and Main bulkhead (867 feet).

### Challenges:

Navigating through varying water depths (0 to 11 feet) and contending with silty sand substrate with shells posed environmental challenges. The marine growth covering the concrete piles required meticulous cleaning, and the team had to utilize commercial scuba with full-face masks and tethered hardwire communications for underwater assessment.

### Findings and Recommendations:

Divers observed light to moderate marine growth (barnacles and oysters), cracking, lack of reinforcing steel, and significant corrosion. They also found and advised on areas that were tested to be sound. The team recommended plans for maintenance and repairs, surveying, and periodic inspections.

### Conclusion

Based on the underwater assessment and historical data, undertaking maintenance repairs to the cap and tie rods is crucial to prolong the bulkhead's service life. Additionally, implementing a rigorous surveying program and periodic underwater inspections will provide ongoing vigilance and enable timely interventions.

Client:  
Town of Beaufort

Reference:  
Greg Meshaw  
(252) 728-2141,  
ext. 239  
g.meshaw@  
beaufortnc.org

Date:  
August - September  
2023

Project Value:  
\$33,595

Highlights:  
Commercial  
Scuba with full-  
face masks and  
tethered hardwire  
communications

## USCG TRACEN Yorktown Waterfront Facilities Inspection Yorktown, Virginia

Terracon was contracted to perform structural inspection and assessment services for multiple waterfront facilities located at the United States Coast Guard Training Center (TRACEN) Yorktown. The project included a comprehensive evaluation of piers, bulkheads, shoreline protection systems, mooring structures, floating docks, and associated infrastructure across the installation.

Terracon conducted Level I visual inspections and selective Level II close-up inspections above and below water in accordance with UFC and NAVFAC guidance. Work included documentation of structural condition, identification of deterioration mechanisms such as corrosion, spalling, timber decay, and erosion, and collection of field data using direct observation and limited cleaning of structural elements where required.

Inspection activities were coordinated with base personnel to maintain uninterrupted training and operational use of the facilities. Deliverables supported development of facility assessment reports, condition ratings, and recommendations for repair, maintenance prioritization, and load limit verification.

Client:  
The Johnson  
McAdams Firm,  
P.A. (for the United  
States Coast Guard)  
Tom Tollison  
(662) 455-4943  
tom.tollison@  
jmcfirm.com

Date:  
2022

Project Value:  
\$125,000

Highlights: Multi-discipline waterfront inspection including topside and underwater structural evaluations, performed while maintaining active USCG operations and access to training facilities

### Cost Estimating

Terracon utilizes a standardized, enterprise-wide Pricing Tool to develop detailed, task-based cost estimates for all projects. Estimates are built by defining project tasks and assigning labor, equipment, subcontractors, and other direct costs to each activity. Labor is calculated based on planned hours, production rates, and billing classifications, while direct expenses and subcontractor services are incorporated with appropriate markups. The tool consolidates all cost components into a comprehensive project summary, including total fee, underlying cost, and strategic fee adjustments. All estimates undergo an internal review and approval process to ensure consistency, accuracy, and alignment with project scope. This structured approach allows Terracon to develop transparent pricing for complex projects such as underwater pier inspections.



**Quality**

## **Adam Wolf**

### **Project Manager**

#### **PROFESSIONAL EXPERIENCE**

Mr. Wolf has been with Terracon since 2007 and currently serves as a Project Manager in the Materials Department and a diver on the underwater inspection team. He has extensive experience in construction materials testing and inspection, including soils, concrete, asphalt, and steel, and is skilled in managing large-scale projects, staffing, training, contractor coordination, and quality assurance/control.

A professionally trained ANSI/ACDE commercial diver with over 18 years of experience, Mr. Wolf performs underwater inspections in a wide range of conditions, including zero visibility, strong currents, and contaminated environments. He is experienced in surface-supplied, mixed gas, and self-contained diving, as well as underwater construction techniques such as welding, rigging, and salvage operations.

Mr. Wolf is qualified as a Bridge Inspection Project Manager/Team Leader in accordance with FHWA NBIS standards and has conducted Level I-III inspections on bridges and marine structures across the Midwest and East Coast.

He brings additional field experience as a senior engineering technician with certifications in soil and concrete testing, including ACI training. His expertise includes concrete field testing, reinforcing steel inspection, and evaluation of bearing soils for shallow and deep foundations.

#### **PROJECT EXPERIENCE**

##### **Morton Salt Mine – Fairport Harbor, OH**

Underwater inspection of a loading and offloading structure and mooring cells. Performed a Level 1 inspection of the underwater substructure elements and provided a detailed report of the findings.

##### **City of Milwaukee, Underwater Bridge Inspection - Milwaukee, WI**

Underwater bridge inspection Team Leader/Diving Supervisor performing Level 1 underwater bridge assessment of 26 bridges including cleaning of 10% of all underwater substructure components.

##### **Butler County Engineers Office, Underwater Bridge Inspection - Butler County, OH**

Underwater bridge inspection Team Leader/Diving Supervisor performing inspection of Hamilton-Eaton Road over the Great Miami River.

##### **Hamilton County Engineers Office Bridge Inspection Program 2019 - Hamilton County, OH**



#### **EDUCATION**

Associates of Applied Science Degree, Construction Management Cincinnati State Technical & Community College

ANSI/ACDE 01-98, Commercial Diving, 2007, The Ocean Corporation, Houston, Texas

#### **REGISTRATIONS/ CERTIFICATIONS**

ANSI/ACDE 01-98 Commercial Diver  
Association of Diving Contractors International, Surface-supplied Air Diver and Mixed Gas Diver  
FHWA-NHI-130091 Underwater Bridge Inspection Course  
FHWA-NHI-130055 Safety Inspection of In-Service Bridges  
Divers Alert Network,  
Oxygen/Advance Oxygen Provider

#### **PROFESSIONAL TRAINING**

Medic First Aid CPR, AED, and First Aid  
NICET soils level II  
OSHA 40-hour Hazardous Materials Training  
Nuclear Meter In-house Certified  
OSHA 10-Hour Health & Safety Training  
American Concrete Institute Level I Field Testing Certification Course- Practical Examination  
Various H. C. Nutting In-House Training/Certification Courses  
- Reinforcing steel  
- Masonry observation  
- Shallow foundations  
- Concrete test and materials  
- Earthworks observation

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Bridge inspection Team Leader/Diving Supervisor performing inspections on 4 bridge substructures located on various bodies of water in Hamilton County, Ohio.

**Hamilton County Engineers Office, Bridge Inspection Program 2018 - Hamilton County, OH**

Bridge inspection Team Leader/Diving Supervisor performing inspections on 3 bridge substructures located on various bodies of water in Hamilton County, Ohio.

**Ohio Department of Transportation VAR-District 8 Underwater Bridge Inspection - Hamilton, Butler, Greene, & Warren Counties**

Level 1 underwater bridge assessment of 37 bridges including cleaning of 10% of all underwater substructure components. This included four confined space entries and one raw sewage structure inspection.

**GRE-Bridge St. Bridge, Greene County Engineers Office, Underwater Bridge Inspection - Greene County, OH**

Underwater bridge inspection Diver performing inspection of 1 concrete arch bridge structure across Massie's Creek. Level III inspection was performed to extract cores for strength and chloride testing and non-destructively locate embedded reinforcing steel. This information was needed by the design engineer since no design plans were available when the bridge was constructed in the early 1900s.

**Hamilton County Engineers Office, Bridge Inspection Program 2003-2008 - Hamilton County, OH**

Bridge inspection diver/tender performing inspections on twelve bridge substructures located on various bodies of water in Hamilton County, Ohio.

**Arrow Lake Dam - Mt. Pleasant, TN**

Underwater inspection of the earthen dam, intake structure, and substructure for pavement on the crest of the dam. Served as diver/tender during inspection operations, working in dark water.

**Missouri St. Rt. 5 Bridge, Hurricane Deck Bridge - Camden County, MO**

Performed Level I, II, and Level III underwater assessments of four bridge piers and caissons on this five-span steel truss bridge originally constructed in the 1930s. Water depth varied from 40 ft. to greater than 75 ft. deep, and inspections were performed off of the work platform barge. Services involved visual inspection of below water elements to observe for any signs of deterioration, scour, debris build-up, etc., as well as extraction of three concrete cores from each pier below the water to be subjected to laboratory testing including chloride ion content, petrographic examination, and compressive strength testing.

**West Virginia Department of Transportation, Division of Highways - Bridge Inspection Program**

Bridge inspection diver/tender performing bridge substructures assessments on various bodies of water in West Virginia.

**Hydroelectric Plant Underwater Inspection Program - American Electric Power of Indiana and Michigan**

Inspection team member, diver/tender performing underwater assessment of the total facility at six locations in Southwest Michigan and Northeast Indiana.

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## **Bradley Walden, CWI**

### **Field Supervisor, Diving Services**

#### **PROFESSIONAL EXPERIENCE**

Mr. Walden has been with Terracon's Cincinnati office since 2000 and currently serves as Diving Services Supervisor. He oversees daily operations, including business development, project management, health and safety, personnel and equipment management, and billing, with experience supervising diving projects of all sizes and complexities.

Mr. Walden is qualified as a Bridge Inspection Project Manager/Team Leader in accordance with FHWA NBIS standards, having completed the NHI comprehensive bridge inspection course. He has performed Level I-III inspections on structures ranging from culverts to major bridge substructures across the Midwest and East Coast, as well as structural condition assessments of marine facilities.

He also serves as a construction inspector with experience in soils, foundations, concrete, structural steel, and protective coatings. His expertise includes visual, destructive, and non-destructive evaluations.

Mr. Walden is an AWS QCI-96 Certified Welding Inspector with training in nondestructive testing (NDT), including weld, bolt, and coatings inspection and testing.

#### **PROJECT EXPERIENCE**

##### **Waterfront Facility Inspection – United States Coast Guard – Training Center, Yorktown, VA**

Perform underwater cleaning and substructure inspection of various Piers, docks, and bulkheads.

##### **United States Naval Academy – Annapolis, MD**

Perform underwater cleaning and substructure inspection of the King George Street utility bridge.

##### **Hydroelectric Unit – Dam Inspection – Waverly, IA**

Performed underwater cleaning and substructure inspection of the hydroelectric unit structure, including underwater coring, extraction, repair of compressive strength, and petrography analysis.

##### **Underwater Bridge Inspection – Cleveland, OH**

Underwater bridge inspection diver performing inspection of 4 bridge moveable bridge substructures over the Cuyahoga River, following NBIS guidelines. Level I and II inspections were performed to assess the condition and provided waterway and substructure ratings for each bridge inspection. Water depths vary from less than 3ft. to about 40ft.

#### **EDUCATION**

Associates Degree  
Criminal Justice, 1985,  
Eastern Kentucky University

ANSI/ACDE 01-98, Commercial  
Diving, 1997, Divers Academy  
International

#### **REGISTRATIONS/**

##### **CERTIFICATIONS**

American Welding Society,  
03040561 Certified Welding  
Inspector  
NACE Level I Coatings Inspector  
American Society for Non-  
Destructive Testing, Magnetic  
Particle Level I  
American Society for Non-  
Destructive Testing, Liquid  
Penetrant Level I  
American Society for Non-  
Destructive Testing, UT Level I  
ODOT Coatings Inspector  
ODOT Work Type 26  
ODOT Work Type 57  
ICC Bolting Inspector  
ICC Welding Inspector  
ICC Structural Steel Inspector  
ICC Spray Applied Fireproofing  
Inspector

#### **PROFESSIONAL TRAINING**

30 Hour Competent Person  
Trained  
Fall Protection Trained  
Confined Space Trained  
40-hour HAZWOPER  
40-hour HAZWOPER Supervisor  
Kentucky Certified Emergency  
Medical Technician -EMT B

#### **AFFILIATIONS**

Association of Diving Contractors  
International  
American Welding Society  
American Society for  
Nondestructive Testing

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**Northern Kentucky Water District, Screen Replacement - KY**

Removed and replaced two- large-diameter raw water intake screens.

**Property Condition Assessment, San Francisco Ba - Berkley, CA**

Performed an underwater substructure assessment as part of a property condition assessment.

**Northern Kentucky Water District, Raw Water Intake and Reservoir Inspection Program - KY**

Performed underwater inspection of 3 raw water intakes, one pipeline crossing, and 4 reservoir intakes. This included one confined space entry.

**Sediment Removal, Hollywood Casino**

Performed sediment (hand dredged) removal within the boat basin, approximates 30,000 cubic yards using hydraulic Serbisble pumps.

**Connecticut Department of Transportation (CTDOT), Statewide Off-System Railroad Bridge Underwater Inspection**

Underwater bridge inspection diver performing inspection of a total of 14 bridges, of varying structure types over bodies of water, both in-land and tidal, following NBIS guidelines. Level I inspections were performed to assess the condition and provided waterway and substructure ratings for each bridge inspection. Water depths vary from less than 3ft. to about 20ft.

**New Hampshire Department of Transportation (NHDOT), Statewide Underwater Inspection Program**

Underwater bridge inspection diver performed an inspection of a total of 64 bridges in 2018, 42 bridges in 2019, and 46 in 2020, totaling 152 bridge inspections, of varying structure types over bodies of water, both in-land and tidal, following NBIS guidelines. Level I inspections were performed to assess the condition and provided waterway and substructure ratings for each bridge inspection. Water depths vary from less than 3ft. to about 50ft.

**Ohio Department of Transportation VAR-District 8 Underwater Bridge Inspection, Hamilton, Butler, Greene, & Warren Counties**

Level 1 underwater bridge assessment of 37 bridges including cleaning of 10% of all underwater substructure components. This included four confined space entries and one contaminated water structure inspection. 2020 Northern Kentucky Water District, Raw Water Intake and Reservoir Inspection Program Performed Level 1 underwater bridge assessment of 10 structures. This included one confined space entry.

**Duke Energy, Removal of Abandoned Natural Gas Pipeline - Cincinnati, OH**

Removed 510' of 18-inch abandoned natural gas pipelines from the river bottom.

**Hamilton County Park District - Hamilton County, OH**

Performed in-depth Underwater inspection of two primary spillway towers, including replacement of low-level drawdown valve assemblies.

**Dismal Swap Visitor Center - Elizabeth City, NC**

Performed underwater inspection of the moveable bridge, support bents, and fender system.

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#### **Lake Lynn and Crabtree Primary Spillway Tower Assessment - Raleigh, NC**

Performed in-depth Underwater inspection of two primary spillways.

#### **Underwater Bridge Substructure Assessment – North Hero, VT**

Underwater bridge assessment of the U.S. Route 2 moveable bridge located in North Hero, Vermont. Terracon evaluated and reported on the conditions of the bridge substructure from 1 foot above the water to the mud line, performed underwater concrete coring of foundation elements for use to determine compressive strength, and located buried submarine cables. The inspection team performed the assessments using surface-supplied-air diving methods to perform the scope of work.

#### **New Hampshire Department of Transportation (NHDOT), Statewide Underwater Inspection Program**

Underwater bridge inspection diver performed an inspection of a total of 54 bridges in 2015, 39 bridges in 2016, and 51 in 2017, totaling 144 bridge inspections, of varying structure types over bodies of water, both in-land and tidal, following NBIS guidelines. Level I inspections were performed to assess the condition and provided waterway and substructure ratings for each bridge inspection. Water depths vary from less than 3ft. to about 50ft.

#### **Hamilton County Engineers Office, Bridge Inspection Program - Hamilton County, OH**

Bridge inspection Team Leader/Diving Supervisor performing inspections on 12 bridge substructures located on various bodies of water in Hamilton County, Ohio.

#### **Cuyahoga County Engineers Office, Bridge Inspection Program - Cuyahoga County, OH**

Bridge inspection Team Leader/Diving Supervisor performing inspections on 6 bridge substructures located on various bodies of water in Cuyahoga County, Ohio.

#### **GRE-Bridge St. Bridge, Greene County Engineers Office, Underwater Bridge Inspection - Greene County, OH**

Underwater bridge inspection Team Leader/Diving Supervisor performing inspection of 1 concrete arch bridge structure across Massie's Creek. Level III inspection was performed to extract cores for strength and chloride testing and non-destructively locate embedded reinforcing steel. This information was needed by the design engineer since no design plans were available from when the bridge was constructed in the early 1900s.

#### **Hamilton County Engineers Office, Bridge Inspection Program - Hamilton County, OH**

Bridge inspection Team Leader/Diving Supervisor performing inspections on 12 bridge substructures located on various bodies of water in Hamilton County, Ohio.

#### **Greater Cincinnati Water Works, Inspection of Service Access Bridge - Ft Thomas, KY**

Bridge inspection Team Leader in the performance of the Cantilever through Truss with Subpanel Points Super Structure over the Ohio River.

#### **Muskingum County Engineers Office, Bridge Inspection Program - Muskingum County, OH**

Bridge inspection Team Leader/Diving Supervisor in the performance of 2 bridge substructures located on various bodies of water in Muskingum County, Ohio, as part of their bridge inspection program.

## **Mason Evans**

### **Materials Technician | Engineering Technician Diver**

#### **PROFESSIONAL EXPERIENCE**

Mr. Evans serves as a rotation diver and underwater inspector, responsible for mobilization and demobilization, dive station setup and breakdown, assisting the lead diver, and maintaining diving equipment. He is an ANSI/ACDE 01-1998 professionally trained commercial diver.

Mr. Evans is experienced in surface-supplied, mixed gas, and self-contained air diving. His skill set includes the use of hydraulic and pneumatic tools, rigging, underwater welding and burning, airlifting and jetting, and search and recovery and salvage operations.

#### **PROJECT EXPERIENCE**

##### **Waterfront Facility Inspection – United States Coast Guard – Training Center, Yorktown, VA**

Perform underwater cleaning and substructure inspection of various Piers, docks, and bulkheads.

##### **United States Naval Academy - Annapolis, MD**

Perform underwater cleaning and substructure inspection of the King George Street utility bridge.

##### **Hydroelectric Unit - Dam Inspection – City Of Waverly, IA**

Performed underwater cleaning and substructure inspection of the hydroelectric unit structure, including underwater coring, extraction, repair of compressive strength, and petrography analysis.

##### **Underwater Bridge Inspection - City of Cleveland, OH**

Underwater bridge inspection diver performing inspection of 4 bridge moveable bridge substructures over the Cuyahoga River, following NBIS guidelines. Level I and II inspections were performed to assess the condition and provided waterway and substructure ratings for each bridge inspection. Water depths vary from less than 3ft. to about 40ft.

##### **Northern Kentucky Water District, Screen Replacement**

Removed and replaced two- large-diameter raw water intake screens.

##### **Property Condition Assessment, San Francisco Bay - Berkeley, CA**

Performed an underwater substructure assessment as part of a property condition assessment.

##### **Northern Kentucky Water District, Raw Water Intake and Reservoir Inspection Program**

Performed underwater inspection of 3 raw water intakes, one pipeline crossing, and 4 reservoir intakes. This included one confined space entry.

##### **Sediment Removal, Hollywood Casino**

Performed sediment (hand dredged) removal within the boat basin, approximates 30,000 cubic yards using hydraulic Suislaw pumps.

#### **EDUCATION**

ANSI/ACDE 01-98, Commercial Diving, 2021, Diver's Institute of Technology, Seattle, Washington

University of Cincinnati, BBA, Finance, Cincinnati, Ohio

#### **PROFESSIONAL TRAINING**

Federal Highway Administration - National Highway Institute, Underwater Bridge Inspection (FHWA-NHI-130091)

Divers Certification Board of Canada (DCBC), Unrestricted Surface Supplied Commercial Diver

Qualified Rigging for Commercial Diving, API (RP-2D) Rev. 7

HAZMAT/HAZWOPER,

Complies with OSHA (40HRS) 29 CFR 1910.120

First Aid, AED, CPR, O2 Provider

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#### **TxDOT Underwater Bridge Inspection**

Underwater bridge inspection diver performing inspection of a total of numerous bridges, of varying structure types over bodies of water, both in-land and tidal, following NBIS guidelines. Level I and II inspections were performed to assess the condition and provided waterway and substructure ratings for each bridge inspection. Water depths vary from less than 3ft. to about 40ft.

#### **Northern Kentucky Water District, Raw Water Intake and Reservoir Inspection Program**

Performed underwater inspection of 3 raw water intakes, one pipeline crossing, and 4 reservoir intakes. This included one confined space entry.

#### **Marina Assessment, City of Safety Harbor - Safety Harbor, FL**

Performed a Level 1 assessment of a Marina and public finger dock.

#### **Coleman Blvd Culvert Assessment - Charleston, SC**

Performed Level I and II underwater assessments of concrete culvert structures.

#### **Connecticut Department of Transportation (CTDOT), Statewide Off-System Railroad Bridge Underwater Inspection**

Underwater bridge inspection diver performing inspection of a total of 14 bridges, of varying structure types over bodies of water, both in-land and tidal, following NBIS guidelines. Level I inspections were performed to assess the condition and provided waterway and substructure ratings for each bridge inspection. Water depths vary from less than 3ft. to about 20ft.

# Kyle Gallivan

## Engineering Technician

### PROFESSIONAL EXPERIENCE

Mr. Gallivan is a Construction Services Engineering Technician at Terracon's Cincinnati, Ohio office. Core skills include compaction testing, concrete testing, asphalt density, and foundation/rebar/masonry observations, with prompt daily reporting and proactive coordination to keep construction on schedule.

### PROJECT EXPERIENCE

#### **DHL B777 – Hebron, KY**

Mr. Gallivan performed materials testing and observation during the construction of an airplane maintenance hangar for DHL freight planes. The project site is approximately 55 acres and involves drilled piers, continuous footings, pier caps, slab-on-grade, earthwork, masonry, structural steel, and taxiway pavement.

#### **Jeffersonville Data Center – Jeffersonville, IN**

Mr. Gallivan performed materials testing and observation during construction of a large data center. The project site was very large and involved two separate concrete contractors, each requiring routine concrete testing and sampling.

#### **Home Depot – Broken Arrow, OK**

Mr. Gallivan performed materials testing and observation during construction of a Home Depot. Mr. Gallivan supported this out of town project by providing observation and inspection services as well as training new hires in Materials Testing.

#### **Montgomery Quarters Development – Cincinnati, OH**

Mr. Gallivan performed materials testing and observation during construction of the Montgomery Quarters Development. The project site is very congested and includes a post-tensioned parking garage and wood-framed apartment buildings that required deep foundations, shallow foundations, reinforced concrete slabs and walls.

### EDUCATION

University of Cincinnati, 2011-2015 (Criminal Justice and Sociology DNF).

### CERTIFICATIONS

American Concrete Institute  
Concrete Testing Level I  
KYTC Grade and Drain Level I  
KYTC KEPSC for Roadway Inspectors  
KYTC Structures Inspector Level I  
KYTC Highway Structural Inspection Level I  
KYTC Work Zone Traffic Control Technician  
KYTC Asphalt Paving Best Practices  
KYTC Aggregate Sampling Technician  
ATI 101 Portable Nuclear Density/Moisture Gauge, Masonry Grout, Reinforced Steel  
NETTCP Soil and Aggregate Insp.

## Peter Lytle, P.E.

### Materials Engineering Department Manager

#### PROFESSIONAL EXPERIENCE

Mr. Lytle is a Department Manager for the Materials Engineering group in Terracon's Cincinnati office and is familiar with multiple aspects of construction materials testing and inspection, including soil, concrete, asphalt, and steel. Peter also manages the concrete petrography laboratory. His skills include coordinating and managing quality control, testing, and inspection projects; managing and performing non-destructive testing and inspection projects; and managing and performing structural evaluation projects. Peter is trained and certified in Windsor Probe testing, Rebound Hammer testing, corrosion potential testing, Ferroskan reinforcing steel mapping, and Ground Penetrating Radar.

#### PROJECT EXPERIENCE

##### Materials Engineering Projects – Various Clients, Cincinnati, OH

Project manager for over 150 materials engineering testing and non-destructive evaluation projects in the greater Cincinnati Area. Clients include, but are not limited to the University of Cincinnati, Festo Corporation, GE Aviation, Procter & Gamble, Jones Lang Lasalle, Children's Hospital, St. Elizabeth Hospital, Messer Construction, Sam Adam's Brewing Company, THP Limited, Duke Energy, and Towne Properties. These projects included concrete condition assessments, thermal monitoring of concrete, concrete reinforcing steel scanning with ground-penetrating radar (GPR), concrete slab elevation surveys, load testing, pavement evaluations, structural steel testing, and post-construction materials testing.

##### Construction Materials Testing Projects – Various Clients, Cincinnati, OH

Project manager for over thirty material testing and inspection projects in the greater Cincinnati Area. Clients included, but are not limited to the University of Cincinnati, Mount St. Joseph, Amazon, St. Elizabeth Hospital, and Dollar General.

##### GCWW Mill Creek Barrier Dam Evaluation, Cincinnati, OH

Project Manager for the condition assessment of existing barrier dam structure on the Mill Creek, which was constructed as part of a flood control system by the US Army Corps of Engineers in the 1940s. Due to its age, the structure was showing signs of distress, and the client requested Terracon to evaluate the condition of the concrete, embedded reinforcing steel, and develop repair recommendations to restore the structure and provide an additional 50 years of service life. Peter performed audio and visual inspections, developed a crack-map, and used GPR equipment to determine reinforcing steel cover and spacing. During the inspection Peter noted a structural failure within one of the dam slab supports. Peter then managed Terracon's Structural Engineering department to design a structural repair of the dam, without bringing the dam out of services.

##### Target Floor Slab Assessment Project, Target Corporation Various Locations

Project manager for the floor slab assessment at 26 Target stores in 9 different states. Peter trained field personnel and coordinated access to the Target stores to complete the work within a two month period.



#### EDUCATION

Bachelor of Science, Civil Engineering, University of Cincinnati, 2018

#### REGISTRATIONS/ CERTIFICATIONS

Post-Tensioning Institute Level 2 - Unbonded PT  
Firestop Special Inspector  
National Council of Examiners for Engineering and Surveying - EI

#### PROFESSIONAL AFFILIATIONS

ACI - Miami Valley YP Group President  
ICRI Presenter  
- 2020 Fall Convention (National)  
- 2022 Spring Convention (National)  
- 2021 Fall Convention (Carolinas)  
SeAoO Presenter - 2021 Spring Convention

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#### **GE Aviation Test Cell #44 Concrete Condition Assessment and Repair Inspections, Cincinnati, OH**

Project manager for the condition assessment of the jet engine exhaust chamber test cell. Built in the 1950s, the concrete test cell is subjected to extreme temperatures and pressure causing severe concrete deterioration. Peter coordinated and performed concrete core sampling, ground-penetrating radar, corrosion potential testing, concrete sounding, and crack mapping. Peter developed a condition assessment report and coordinated with a structural engineer to develop repair drawings. During the concrete repair phase, Peter performed inspections of the prepared substrate and reinforcing steel, as well as, pull-off testing according to ASTM C1583 on the new overlay material.

#### **Colorado Springs Box Girder Bridge Rehabilitation Project, Colorado Springs, CO**

Project manager for the condition assessment of the four-lane prestressed hollow box-girder bridge. The prestressed girders were beginning to show signs of corrosion. Peter performed concrete core sampling, ground-penetrating radar, corrosion potential testing, concrete sounding, and crack mapping. Peter developed a condition assessment report and provided recommendations to the Structural Engineer to utilize cathodic protection on the bridge to extend its service life.

#### **Wright-Patterson Airforce Base Steam Tunnel Repair Project, Dayton, OH**

Project manager for the condition assessment of two 300-ft long steam tunnels. Peter utilized a confined space crew to perform all needed testing in a short shut-down period provided by the airforce base. Peter performed concrete core sampling, ground-penetrating radar, corrosion potential testing, concrete sounding, and crack mapping. Peter developed a condition assessment report and provided recommendations to the Structural Engineer to utilize cathodic protection on the tunnels to extend their service life.

#### **Craig Village MOUT Site, Range 45 – Forensic Testing, Fort Campbell, KY**

Project manager for the condition assessment on 25 concrete masonry unit (CMU) buildings as part of the training facility known as Craig Village. Peter was part of a team to determine the current condition of the CMU walls. Peter used a combination of Windsor pin testing, rebound hammer, CMU coring, and ground penetrating radar to provide a report on the current condition of the CMU walls.

#### **Erlanger Commerce Center Slab Investigation, Erlanger, KY**

Project Manager for the non-destructive slab investigations performed on buildings 1 and 2 of the Erlanger Commerce Center. Buildings were occupied by Perfetti Van Melle, Novolex, and Coca-Cola and managed by Jones Lang Lasalle. The concrete slabs at both buildings were experiencing joint deterioration, settlement, and heave. Peter developed a non-destructive evaluation based on the client's need to determine the extent of the defects in the slab. Testing included elevation surveys and joint stability testing with a floor profiler and determination of voids beneath the slab with GPR. The initial evaluation was used to determine subsurface boring locations, as well as a quarterly inspection plan for both buildings.

#### **Church Street Bridge Thrust Block Thermal Monitoring, Granville, NY**

Project Manager for the consulting and thermal monitoring needed at the new Church Street Bridge project. Washington County commissioned the building of a new bridge crossing the Mettawee River. The bridge consisted of concrete thrust blocks that were considered mass concrete. Terracon provided a thermal control plan and concrete thermal monitoring. Peter coordinated with a subject matter expert to create a thermal

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control plan. Peter trained the Terracon Albany office on how to use the thermal monitoring equipment, provided periodic concrete temperature reports, and remotely participated in client meetings.

#### **1526 Madison Rd Foundation Investigation, Cincinnati, OH**

Project Manager for the foundation settlement investigation at a café managed by Towne Properties. Cracks in an exterior wall and sloping of the floor above caused an owner to suspect foundation settlement. Peter developed an evaluation using a combination of non-destructive tests, subsurface sampling, and laboratory testing. Testing included GPR scanning for voids beneath the slab, elevation survey with a floor profiler, moisture content, and Atterberg limits of soils.

The Gwynne Building Structural Assessment, Cincinnati, OH

Project Manager for the over 100-year-old Gwynne Building Structural Assessment Project. The Gwynne Building was being evaluated by a structural engineer to determine whether the building meets current building code standards. Peter coordinated with the structural engineer to determine critical locations where the concrete could be GPR scanned to reveal the reinforcing steel layout.

#### **Top Gard LLC Pour Bracket Conceptual Testing, Cincinnati, OH**

Consultant for the Pour Bracket Conceptual Testing Project. Top Gard LLC invents and produces new technologies and tools that are used in the construction industry. Top Gard's requested that Terracon perform proof loading tests to determine the load capacity of the bracket. Peter met with a representative of Top Gard to determine a proof loading procedure. The procedure consisted of casting concrete beams that the bracket could be fastened to. The bracket was then loaded via a compression device until failure.

#### **GCWW Filter Building Evaluation, Cincinnati, OH**

Project manager for the condition assessment of the Filter Building. The Filter Building contains 47 rapid sand filters with an overall capacity to treat 282 MGD. The original 26 filters in the center of the building were built in 1907. An additional 14 filters were added in 1937 and the final 7 filters were added in 1964. Peter coordinated and performed concrete core sampling, ground-penetrating radar, corrosion potential testing, concrete sounding and crack mapping, and lead paint testing. Peter developed a condition assessment report and coordinated with a structural engineer to develop repair drawings.

#### **GCWW Tennyson Garage Evaluation, Cincinnati, OH**

Project manager for the condition assessment of the Tennyson Pump Station employee parking garage. The one-story reinforced concrete garage was built in 1951 and was showing signs of delaminated concrete, corroded steel, and efflorescence. Peter coordinated and performed concrete core sampling, ground-penetrating radar, corrosion potential testing, concrete sounding and crack mapping, and lead paint testing. Peter developed a condition assessment report and coordinated with a structural engineer to develop repair drawings.

#### **CVG International Airport New Consolidated Rental Car Facility – Hebron, KY**

Post-tension cable and reinforcing steel inspector for the 5-story parking garage. Peter inspected post-tension cables and reinforcing steel for over 80 reinforced concrete pours. Peter trained four Terracon employees on the post-tension inspection process throughout the duration of this project.

## **Wil V. Beckwith, P.E.**

### **Group Manager, Materials Engineer**

#### **PROFESSIONAL EXPERIENCE**

Mr. Beckwith has over 20 years of materials engineering and testing experience. He is an Engineering Materials Manager on various types of projects, a role that involves estimating, planning, directing, and conducting site visits to ensure the projects are meeting project standards and specifications. The projects include mass earthwork, building code special inspection, renovations, forensic studies, and nuclear NQA-1. He has experience with all aspects of field testing, including non-destructive, for soils, concrete, reinforcing steel, masonry, asphalt, and structural steel. Mr. Beckwith also develops plans for various load tests, including piping, structural fasteners, anchors, pressurization tests, etc., conducted in the field and laboratory.

As a Project Manager for special inspection services, duties include scheduling the testing and inspection activities with the onsite representative and providing a report detailing the results. In addition to providing the reports, a deviation log is maintained and communicated to the design team and contractor. Mr. Beckwith provides the communication link between the site activities and those that cannot be there on a regular basis.

#### **PROJECT EXPERIENCE**

##### **Flood Levee Alteration - Newport, KY**

This project included working with the Army Corps of Engineers in monitoring the contractor's open-cut through and below the floodwall levee for the installation of a new storm line. Mr. Beckwith managed rush laboratory testing with samples being extracted during the excavation process and results needed prior to backfill. The project included concrete, field density, proctor results, soil classifications, and permeability testing.

##### **Racine Lock and Dam - Racine, WV**

Project Manager for providing paint coatings inspection for a rail system on the top of the hydroelectric and lock structure over the Ohio River. The rail was likely in original condition from construction that began in 1964 and is used to move a crane for removing debris. The project required NACE Level 1 certified personnel to verify the surface preparation, weather conditions, and new paint thicknesses.

##### **Aqua on the Levee - Newport, KY**

Project Manager for providing the special inspections and testing services on the new three-story parking garage with a hotel and apartment structure overbuild. The contract included all the earthwork, auger cast pile foundations, concrete, and masonry testing and inspections. The parking garage was a post-tensioned system and Mr. Beckwith verified the contractor's Quality Control for maturity testing prior to tensioning.



#### **EDUCATION**

Bachelor of Science, Civil Engineering, University of Cincinnati, 2007

#### **REGISTRATIONS/ CERTIFICATIONS**

Registered Professional Engineer:  
Kentucky, No. 28645  
Ohio, No. E-77752  
Indiana, No. PE11300346  
NRMCA Batch Plant Inspector -  
819611  
Radiation Safety Officer  
Federal Highway Safety Inspection  
of In-Service Bridge Inspector  
ACI Concrete Field Testing  
Technician - Grade I  
ACI Concrete Strength Testing  
Technician

#### **PROFESSIONAL TRAINING**

OSHA 10-Hour Training  
OSHA 8-Hour Confined Space  
Hilti: Anchor 201: Technology of  
Adhesive Anchors and the Effects  
of Varying Field Conditions  
Kentucky Ready Mixed Concrete  
Association: Concrete Overlays:  
The Cost Effective Option to  
Rebuilding Pavements  
American Concrete Institute  
Seminar: Trouble Shooting  
Concrete Construction  
Kentucky Ready Mixed Concrete  
Association: Soil Testing and Site  
Monitoring for Low Impact  
Development

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**University of Cincinnati, Siddall Hall Renovations - Cincinnati, OH**

APR assisted Project Manager for multiphase construction including retaining wall systems, excavations, fill placement, shallow and deep foundations, utility fabrication, structural steel, and concrete quality control.

**University of Cincinnati, Jefferson Avenue Sports Complex 2023 Renovations - Cincinnati, OH**

APR assisted project manager for multiphase construction including retaining wall systems, mass excavations, fill placement, shallow and deep foundations, utility fabrication, and concrete quality control. Assisted in project staffing of the project, also performed observation and monitoring of tie-back retention system installation for deep excavations and retaining wall construction including the load tests for tie-backs.

**Belterra Park - Cincinnati, OH**

Project Manager for providing the special inspections and testing services on the new two-story horse racing casino. The structure included auger cast pile foundations, reinforced concrete, structural steel, and fireproofing. Our services also included teaming with resource international as an SBE firm to assist with concrete testing.

**Eastern State Hospital - Lexington, KY**

Project Manager for providing the special inspections and testing services on the new three-story hospital with four additional two-story patient care facilities. The contract included all the earthwork, foundations, concrete, masonry, fireproofing, and structural steel testing and inspections. The foundation inspections included verifying the bedrock conditions with probe holes.

**East Kentucky Power Cooperative, Cooper Station - Somerset, KY**

Performed the project manager duties for the addition of scrubbers on the current unit. The project utilized an onsite lab and a full-time technician. Duties included testing the concrete, earthwork, and grout and communicating the results to the design team and contractor.

**Wild Turkey Distillery - Versailles, KY**

Performed the project manager duties for the new distillery building. The construction contained mat foundations, load-bearing masonry walls, and structural steel. The site is located in a karst potential area and rock probe holes were completed for the foundations.

**Eastern Kentucky University Business and Technology Phase II - Richmond, KY**

Project Manager for the special inspections on both the new addition and the new auditorium structure. The major aspects of the project consisted of masonry load-bearing walls and structural steel.

**Patient Care Facility, University of Kentucky - Lexington, KY**

Project Manager for the foundation and structural steel QA/QC portions of the project. The foundation consisted of both drilled piers and spread footings bearing on rock. The project required one full-time senior technician on-site to evaluate the rock probe holes and perform other various inspections. The structural steel consisted of ultrasonic testing on one hundred percent of the full penetration welds and dye penetrate testing on ten percent of the fillet welds.

**Bridge Evaluation, West Virginia DOH #677 - Martinsburg, WV**

Performed re-bar location and Impact Echo testing on the I - Beams to verify that the tendons and concrete had adequate bonding for the structural integrity. Both devices provided a non-destructive method to evaluate the beams. Provided client summary report detailing our findings in the field.

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### **Reinforcing Steel Corrosion Analysis - Nassau, The Bahamas**

A 5-story reinforced concrete structure constructed in the 1960s was evaluated using both half-cell potential and linear polarization methods to determine the probability of corrosion and the rate of corrosion. The evaluation included the use of a ferroskan to locate the reinforcing steel for analysis, exposed reinforcing steel for the half-cell connection, and also recorded spall damage. Approximately 4,000 square feet of the ceilings were tested with the half-cell per the ASTM C876 to determine the probability of corrosion over the four-day evaluation. The rate of corrosion was evaluated within random locations of the half-cell testing and also at locations with the highest probability.

### **Concrete Hurricane Damage - San Juan, Puerto Rico, and St. Croix**

Multiple buildings were under construction when Hurricane Maria struck the islands leaving reinforcing steel and relatively young concrete exposed. An evaluation of the exposed reinforcing steel was completed on-site and concrete samples were extracted for water-soluble chloride testing per ASTM C1218. The reinforcing steel had surface rust and was compared to the applicable standards to determine if any damage had occurred. The concrete testing was compared to the applicable ACI tables to determine if additional chloride may have penetrated into the material.

### **Advanced Treatment Facility Concrete Inspection, NKWD - Erlanger, KY**

During the original construction of the facility, the concrete cylinders fabricated for this area were not able to achieve the specified strength. The contractor issued an extended warranty on their workmanship and materials and the client requested that the concrete be inspected. The inspection consisted of visual observations and the use of a rebound hammer for an initial phase. The area was located within a confined space and phased inspections were determined to be the most efficient with the first phase being completely non-destructive. Drawings detailing any cracks, efflorescence, and/or corrosion were provided to the client for future inspections. Based on the results from the first phase of the inspection no additional testing was warranted.

### **Bridge Evaluation, West Virginia DOH #677 - Martinsburg, WV**

Performed ferroskans and Impact Echo testing on the Beams to verify that the tendons and concrete had adequate bonding. Both devices provided a non-destructive method to evaluate the beams. Provided client summary report detailing our findings in the field.

### **Solid Waste Transfer Station Floor Slab Investigation - Cincinnati, OH**

Developed a plan for evaluating a concrete slab at an existing solid waste transfer station that is being attacked by both waste chemicals and high abrasion from front-end loaders. The investigation included completing an elevation survey, field reinforcing steel observation for effective area and corrosion, and supplying repair recommendations.

### **Mechanical Foundation Investigation - Middletown, OH**

The project consisted of evaluating two turbo blower fans foundations including the concrete and the steel soleplate. The client suspected that the steel sole plate had heaved in the middle causing an issue with the blower balancing. The grout and concrete beneath the soleplate were investigated for expansion at high heats, exposed to 300°F, and petrographic examination. The steel soleplate was also observed on an operating turbofan for a large change in temperature across the area. Additionally, the new sole plate was tested for bonding to the new grout after the installation was completed.

## **Timothy P. Jester, P.E.,** **Project Engineer, Wilmington, NC**

### **PROFESSIONAL EXPERIENCE**

Timothy Jester has over 34 years of continuous experience in the design, inspection and testing of a variety of structures. Prior to joining TAM Consultants in March 2006, he served as discipline chief for bridge design at a significant structural design firm in New York City. His work in New York included extensive bridge design and inspection, support of construction for bridge projects, design and inspection of underground rail transit stations both for structural rehabilitation and for general renovation, design and inspection of surface rail facilities including structural rehabilitation and replacement of platforms, pedestrian bridges and other station appurtenances, building rehabilitation and code compliance for seismic design, and other structural and civil design and construction work.

### **PROJECT EXPERIENCE**

#### **Hampstead Fire Station #3, Hampton, VA**

Structural Engineer of Record for the design of a new fire station for the City of Hampton. The 17,000 square foot facility includes four pull-through apparatus bays with training amenities, along with a station house wing providing administrative, kitchen, training and living space. Provided structural design of the building, construction support services, and Agent 1 Special Inspections services.

#### **Petersburg Police Headquarters, Petersburg, VA**

Structural Engineer of Record for the conversion of the existing two-story Social Services building into a new Police Headquarters for the City of Petersburg. Project included a detailed site investigation to document the existing building structure and full building analysis. The final design report presented a review of the building's structural capacity along with requirements for a supplemental lateral system to address increased seismic and wind load requirements based on the building's new use.

#### **James City County Law Enforcement Center, James City County, VA**

Structural Engineer of Record for the design of the Law Enforcement Center. The main building is a two-story, 40,000 square foot steel framed structure with a full height atrium at the entrance and along much of the rear wall. A one-story wing on the south end of the building houses forensic labs and a separate building at the rear provides hazmat and vehicle/boat storage.

#### **James City County Recreation Center Natatorium, James City County, VA**

Structural Engineer of Record for a structural condition evaluation of the existing Natatorium. Performed hands-on and visual inspection of the existing bar joist roof system looking for damage and failures resulting from chlorine corrosion and other causes. Provided summary report with recommendations for mitigation



### **EDUCATION**

M.S. Civil Engineering,  
Lehigh University

### **REGISTRATIONS/ CERTIFICATIONS**

Professional Engineer:  
Virginia

### **REGISTRATIONS/ CERTIFICATIONS**

Professional Engineer in  
Virginia (2006), Delaware  
(2019), New York (1995),  
West Virginia (2016),  
Maryland (2006), Georgia  
(2020)

### **AFFILIATIONS**

Virginia Structural Engineer  
Council  
American Institute of Steel  
Construction  
Cold Formed Steel  
Engineers Institute

### **YEARS OF EXPERIENCE**

At Firm: Since 2006  
In Industry: Since 1989

## **Justin L. DeNicola, P.E.,** **Project Engineer, Wilmington, NC**

### **PROFESSIONAL EXPERIENCE**

Justin manages Terracon's Wilmington, NC office. His experience in geotechnical field exploration includes utilizing various testing methods such as Standard Penetration Testing, Cone Penetration Testing, and Dilatometer Testing. He is also proficient in in-situ electrical resistivity and MASW testing. His experience extends to testing and inspecting soils, concrete, and masonry. His technical capabilities include designing shallow and deep foundation systems, ground improvement methods, settlement analysis, seismic design, and slope stability evaluation.

### **PROJECT EXPERIENCE**

#### **Hampstead Library, Hampstead, NC**

Justin was responsible for overseeing the subsurface investigation utilizing CPT soundings, infiltration testing, laboratory testing, engineering analysis and preparation of the geotechnical engineering report for a proposed 75,000 square foot fertilizer storage warehouse and log storage yard. The project involved settlement analysis of hydraulically placed sands from the 1960's. Recommended options to mitigate settlement included preloading the site, ground improvement with rigid inclusions, and supporting the structure on deep foundations.

#### **Olsen Park Expansion, Wilmington, NC**

Mr. DeNicola was the project manager for the proposed Olsen Park expansion for the City of Wilmington. The expansion included a new maintenance facility, playing field expansion, parking lots, and a multi-purpose path. Terracon's scope of services included utilizing CPT soundings, DCP testing, laboratory testing, engineering analysis, and preparation of the geotechnical engineering report for the project. The project involved mitigation of existing fill/unsuitable soils, settlement analysis, seismic site classification and liquefaction analysis, demolition considerations, foundation, floor slab and pavement design recommendations. This project was completed on time and within budget to keep the design-bid-build project on schedule for the City of Wilmington.

#### **Project Frontier, Jacksonville, NC**

Mr. DeNicola was the project manager for Jacksonville's recently completed Amazon distribution center. Terracon's scope of services included CPT soundings, laboratory testing, engineering analysis, and the geotechnical engineering report preparation for the proposed 67,500 square foot structure. The project involved settlement analysis, seismic site classification, and liquefaction analysis, and provided recommendations for foundation, floor slab, pavement, dewatering, and retaining wall design. Site and design challenges included mitigating typical soft soils and high groundwater common in the Jacksonville area. Terracon worked with the design team to implement a ground improvement system where the building could still be supported on shallow foundations, and consulted with the site civil engineer on dewatering designs. The owner retained Terracon to test the construction materials for this project.



### **EDUCATION**

B.S. Civil Engineering,  
Clemson University, Clemson,  
SC

### **REGISTRATIONS/ CERTIFICATIONS**

Professional Engineer: North  
Carolina, No. 46129

### **PROFESSIONAL TRAINING**

OSHA 10-Hour Construction  
Safety  
TWIC Credentials

### **AFFILIATIONS**

American Society of Civil  
Engineers

### **YEARS OF EXPERIENCE**

At Firm: Since 2017  
In Industry: Since 2013



## EXHIBITS

## EXHIBIT A

### Execution Page

By executing this Request for Qualifications ("RFQ"), the undersigned Vendor certifies that the response is submitted competitively and without collusion, that none of its officers or directors has been convicted of any violations under Chapter 78A of the North Carolina General Statutes (the North Carolina Securities Act), the Securities Act of 1933 or the Securities Exchange Act of 1934, and that it is not an ineligible vendor as set forth in N.C.G.S. § 143-59.1.

As required under N.C.G.S. § 143-48.5, the undersigned Vendor certifies that it, and each subcontractor, if any, for any contract awarded as a result of this RFQ, complies with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, including the requirement for each employer with more than 25 employees in North Carolina to verify the work authorization of its employees through the federal E-Verify system.

Proposals will be evaluated to rank the responding vendors in order of their qualifications and competence following which the Town will attempt to negotiate a fair and reasonable contract price with the best qualified vendor.

**The failure to execute/sign this response prior to its submittal shall render the response invalid such that it will be rejected. Late responses shall not be considered.**

Vendor: Terracon Consultants, Inc.

Street Address: 2108 Capital Drive, Unit 103

City, State, and Zip: Wilmington, NC 28405

Mailing Address: 2108 Capital Drive, Unit 103

City, State and Zip: Wilmington, NC 28405

Federal ID No. or Social Security No.: 42-1249917

Name/Title of Person Signing on Behalf of Vendor: Justin DeNicola, P.E.

Signer's Telephone No.: 910-939-7244 Signer's Mobile No.: 404-626-7824 Email: justin.denicola@terracon.com

Signer's Email Address: Date: June 10, 2026

Vendor's Authorized Signature:



## EXHIBIT B

Name of Vendor: Terracon Consultants, Inc.

The undersigned hereby certifies that [check all applicable boxes]:

☒ Vendor is in sound financial condition.

☒ Vendor has no outstanding tax or judgment liens.

☒ Vendor is current in all amounts due for payments of federal and state taxes and required employment-related contributions and withholdings.

☐ Vendor is not the subject of any current litigation or findings of non-compliance under federal or state law.

☐ Vendor has not been the subject of any past or current litigation or findings in any past litigation which may impact in any way its ability to perform its obligations under an agreement resulting from this procurement process.

☒ The undersigned is authorized to make the foregoing statements on Vendor's behalf.

**If one or more of the foregoing boxes is NOT checked, please set forth the reason in the space directly below.**

*Justin DeNicola*  
Signature \_\_\_\_\_

Date June 10, 2026

Justin DeNicola, P.E., Operations Manager

Printed name and title

Terracon is a large engineering firm specializing primarily in geotechnical, environmental, construction materials testing, and consulting services in support of existing facilities, and we perform tens of thousands of projects nationwide. Given the large volume of projects we perform annually, we are subject to periodic claims and litigation. The number of claims received annually is a very small percentage of the overall number of projects performed, well less than 0.5% of the total.

As a large firm performing many projects, on very rare occasions we have terminated services on our projects prior to project completion. These situations usually arise from a failure to pay for those services, or from decisions to reduce our scope of service to the point where we are no longer comfortable, from a professional perspective, with the continuation of our services on a project. Again, we would stress that we perform several thousand projects annually and these situations arise very rarely and only after thorough efforts to reasonably resolve these issues.

Terracon carries a robust program of insurance to protect us and our clients when applicable against claims arising out of our services. The majority of our reported claims are not ultimately pursued against Terracon. In the claims that are pursued, Terracon has been very successful in defending itself against claims and in many of these cases, has been able to be completely vindicated. None of our claims have in the past impacted or are estimated in the future to impact either the financial strength of our company or the ability to provide quality services to our clients.

Due to the confidentiality and sensitivity of claim information, Terracon does not provide specific information on individual claims or litigation. If you have any specific questions or concerns about this disclosure, feel free to contact us to discuss further.

## EXIHIBIT C

Pursuant to N.C.G.S. § 143-64.31, the Town invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises, and non-profit work centers for the blind and severely disabled. This includes utilizing subcontractors to perform any required functions set forth in this RFQ. Any questions concerning NC HUB certification may be directed to the North Carolina Office of Historically Underutilized Businesses at (984) 236-0103 or [huboffice.doa@doa.nc.gov](mailto:huboffice.doa@doa.nc.gov).

1. Is Vendor a Historically Underutilized Business? ☒ Yes ☒ No

2. Is Vendor certified with North Carolina as a Historically Underutilized Business? ☒ Yes ☒ No

If so, state HUB classification: \_\_\_\_\_.

  
\_\_\_\_\_  
Signature

June 10, 2026  
\_\_\_\_\_

Date

Justin DeNicola, P.E., Operations Manager  
\_\_\_\_\_

Printed Name and Title

Town of Holden Beach

# Development of an Underwater Inspection Report and Cost Estimates for Repair or Replacement Information Purposes of Town Pier Property Located at 441 Ocean Boulevard West, Holden Beach, NC



06.10.26

KCI Associates of North Carolina, P.A.  
226 N Front Street, Suite 114  
Wilmington, NC 28401

The Town of Holden Beach  
110 Rothschild Street  
Holden Beach, NC 28462



# LETTER OF INTEREST

**June 9, 2026**

The Town of Holden Beach  
110 Rothschild Street  
Holden Beach NC 28462



## **Re: Development of an Underwater Inspection Report and Cost Estimates for Repair or Replacement Information Purposes of Town Pier Property Located at 441 Ocean Boulevard West, Holden Beach, NC**

Dear Members of the Selection Committee,

On behalf of KCI Associates of North Carolina, P.A. (KCI), we are pleased to submit our qualifications to assist the Town of Holden Beach (Town) in assessing the substructure elements of the Town Pier. Our goal is to provide the requested underwater inspection services and findings report to help the Town make an informed decision on the future of the Pier. KCI is also prepared to assist the Town with any future waterfront engineering services that may be needed. We are excited about the opportunity and are ready to begin inspections upon notification from the Town.

**Uniquely Qualified:** KCI's marine and coastal engineering experience, combined with our diving experience, makes us uniquely qualified for the project. With in-house PE divers, marine structural design experts, and coastal engineers, we can determine the most cost effective, technically suitable design for rehabilitation, adaptive reuse, or replacement. Our experience includes underwater timber pile inspections, Level III condition assessments, resistance drilling, pile repair and replacement design, pier rehabilitation, full pier replacement, and cost estimating to support repair-versus-replacement decision.

**Engineer / Divers:** The same engineer / divers inspecting the Pier will also assess the repair or replacement options and work with the design team on solutions. For over 50 years, KCI has developed innovative marine engineering solutions with custom services ranging from focused investigations, structural design and geotechnical engineering to underwater inspections, waterfront maintenance and rehabilitation, to coastal engineering and resiliency.

**Extensive Experience in Timber Pile Inspections:** Our staff bring extensive experience assessing the condition of timber piles above and below the water line. We have inspected thousands of piles on the East Coast. Our diving expertise includes: Resistance Testing; Cathodic Protection Testing; Destructive and Non-Destructive Testing of Wood, Concrete and Steel; Welding Inspections; Wood Sample Evaluation; Steel Thickness Readings; Pile Diameter Measurements; Dissolved Oxygen Testing; Pile Wrap Evaluations; Concrete Chloride Testing and Petrographic Analysis; Concrete/Epoxy Jacket Repair Installation; Design of Timber, Concrete, and Steel Structures; Service Life Evaluation; and Computer Based Data Collection/Reduction.

We appreciate the opportunity to support the Town and look forward to the possibility of partnering with you. Please contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Erick Fry", is written over a light blue horizontal line.

**Erick Fry, PE**  
Principal

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Firm Qualifications + Resumes

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Relevant Project Samples

Forms

- a. A fully completed and executed Execution page (Exhibit A)
- b. Statement of Financial Condition (Exhibit B)
- c. Completed and signed Supplemental Vendor Information  
Historically Underutilized Businesses (Exhibit C)

# Section 1. Firm Information



# FIRM INFORMATION

## KCI Associates of North Carolina, P.A.



Founded in 1955, KCI is a 100-percent employee-owned engineering, consulting and construction firm serving clients throughout the United States. Today, our roughly 2,500 employee-owners operate out of more than 70 offices in 20 states, as well as the District of Columbia. With revenues of approximately \$603 million in 2025, the *Engineering News-Record* has consistently placed KCI among the top consulting engineering firms in the country.

KCI's professional staff of engineers, planners, scientists, surveyors, and construction managers offer a broad range of engineering services, including marine, coastal, civil, environmental, facade and envelope, structural, transportation, entertainment, mechanical, electrical, telecommunications, and soils. We also provide cultural and environmental resource management services, land planning and landscape architecture, geology, hydrology, ecology, surveying, and construction management and inspection.

All of our service lines are supported by a team of CADD (Computer-Aided Drafting and Design) designers, GIS (geographic information systems) experts, and database analysts, programmers, and technicians, as well as state-of-the-art computer, field, and lab equipment. KCI's computer network supports the firm's core production systems, including CADD, GIS, three-dimensional visualization/animation tools, document processing and desktop publishing, and project management. The firm's integrated approach to automating design, drafting, documentation, and presentation minimizes costs, facilitates coordination among engineering disciplines, and expedites the production of high-quality products.

● KCI Offices

★ Town of Holden Beach



**OFFICE LOCATION RESPONSIBLE:**  
226 N Front Street, Suite 114,  
Wilmington, NC 28401  
Phone: (336) 510-0148



**2,500+**  
EMPLOYEE OWNERS



**100%**  
EMPLOYEE OWNED



**AWARD-WINNING**  
ORGANIZATION, PEOPLE  
& PROJECTS



**ENR**  
TOP 100



**70+**  
OFFICES

| STAFF BY DISCIPLINE                       |             |
|-------------------------------------------|-------------|
| Discipline                                | Staff       |
| Administrative                            | 148         |
| CADD Technician                           | 25          |
| Civil Engineer                            | 101         |
| Construction Inspector / Manager          | 511         |
| Electrical Engineer / Mechanical Engineer | 48          |
| Environmental Engineer / Scientist        | 154         |
| Foundation / Geotech Engineer / Geologist | 10          |
| Geographic Information Specialist         | 42          |
| Land Surveyor                             | 153         |
| Landscape Architect                       | 25          |
| Planner: Urban / Regional                 | 24          |
| Structural Engineer                       | 139         |
| Transportation Engineer                   | 209         |
| Water Resources Engineer                  | 41          |
| Subsurface Utility Engineer / Technician  | 102         |
| Technical Support Staff                   | 113         |
| Telecommunications Specialist             | 229         |
| Utilities Engineer                        | 372         |
| Other Employees                           | 110         |
| <b>Total</b>                              | <b>2555</b> |

# Section 2. Firm Qualifications + Resumes



# FIRM QUALIFICATIONS



Timber Pile Inspections and Assessments

## Marine + Coastal Engineering

KCI's marine engineering group is known for its trusted, high quality, and innovative approach to solving complex challenges on the waterfront. **As one of the top marine engineering firms with in-house professional engineering diving capabilities, KCI is regularly called upon to investigate waterfront sites and design resilient, sustainable infrastructure.** Our work includes the design of bulkheads, riprap revetment, living shorelines, boat ramps, marinas, recreational use piers, and upland site / civil infrastructure. Our staff includes marine engineers, PE divers, coastal + resiliency specialists, regulatory specialists, and hydrographic surveyors with the required experience and resources internally to service any waterfront project from start to finish.

## Full-Service Marine Engineering + Surveying Firm

- Investigations + Condition Surveys for Marine + Waterfront Structures
- In-House Engineer Divers with PE Licenses + Equipment
- Coastal Analysis (Wind/Wave/Wake)
- Resiliency + Survivability Studies
- Marine Structural Design
- Regulatory Permits + Approvals
- Underwater Inspections
- 3D Sonar Imaging
- Geotechnical Engineering + Water Boring Plans
- Construction Inspections
- Construction Administration
- Construction Management
- Resident Engineering
- Special Inspections
- Surveying (Topographic, Hydrographic, Aerial Drone)

## Professional Engineer Divers

KCI routinely mobilizes fully equipped dive crews that exceed the requirements defined by OSHA and USACE for commercial diving operations. For this project, inspection team leaders will be a NC-licensed PE. **Each has considerable experience in the analysis and design of pile supported waterfront structures, which is the key to our accuracy in reporting investigations.** Our divers assess the condition of underwater components and materials, retrieve samples, perform non-destructive testing, and document the findings with recommendations for next steps. Our divers experience includes:

- Cathodic Protection
- Cleaning Tools, Pneumatic Brushes, Hand Scrapers
- Comprehensive Report Preparation + Surveys
- Concrete + Timber Core Sampling
- Confined Space Inspection
- Construction Inspections
- Low Visibility Diving
- Measurement of Water Resistivity + Stray Current
- Non-Destructive Testing
- Scour Analysis
- Statistical + Structural Analysis
- Ultrasonic Thickness Measurements (UTM)
- Underwater Video + Photography

John Gaul, PE - ADCI-Certified Diving Supervisor and NC PE Inspecting Timber Piles at MOTCO Facility



# FIRM QUALIFICATIONS

## Inspection, Maintenance, and Rehabilitation Design

For over 50 years, we have dealt with the complexities associated with renovating or retrofitting existing waterfront construction. With in-house, PE-led underwater inspection teams we can determine the most cost effective, technically suitable design for rehabilitation, adaptive reuse or replacement. We also regularly work with structures that are 50 to 100 years old or more.

Utilizing our own engineers as inspectors rather than subcontracting provides additional benefits. They can efficiently and accurately assess the structural significance of deterioration and visualize the potential rehabilitation options while they are performing the inspection. **They are also familiar with traditional and advanced materials and various methods of construction, costs, specifications, and means of analysis for new and existing construction.**

Our commercially certified underwater inspection team consists of 20+ divers capable of safely fielding multiple complete OSHA-compliant teams (including vehicles and equipment).

## Timber Pile Inspections with Resistance Drilling

Part of ensuring the safety and integrity of marine structures involves the inspection of timber piles and other components. Decay caused by marine borers and other environmental factors often goes unnoticed due to its hidden nature, occurring from the inside out. The timber's external appearance may remain intact, but the real damage lurks within, compromising its strength and posing potential hazards for failure.

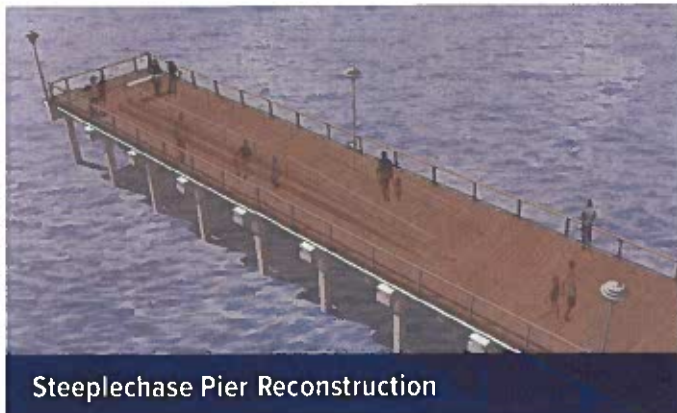
To help detect internal voids and advanced decay without causing further damage to the timber, we use nondestructive tools like a resistance drill, or "resistograph". By slowly advancing a long thin drill bit into the timber, our engineers can observe the resistance readings on the graph in real time. Regions of low or no resistance on the chart signify potential areas of hidden wood decay or marine borer damage. This critical information helps our team identify weak spots and areas of concern within the wooden pile, even if they are not visible from the outside.



Photos of Engineer Dive Inspector, Robert Provencher using the resistance drill at a recent site inspection



# FIRM QUALIFICATIONS



Steeplechase Pier Reconstruction

## We Don't Just Inspect It—We Design and Help You Build It

We design plans that are ready to move into funding, design, and construction. Our engineers are extremely familiar with infrastructure layout + access, coastal + environmental conditions, regulatory permitting issues, utilities, and maintenance costs.

## Engineering + Planning Integration

Our team includes engineers, planners, and environmental and marine experts. We can quickly assess:

- Wetlands constraints
- Shoreline stabilization
- Infrastructure extension costs

We offer designs that are buildable from day one, reducing risk and avoiding costly surprises later.

## Sustainable + Resilient Design

KCI's coastal engineering practice puts the focus on protecting communities and waterfront infrastructure through coastal flood risk management, ecosystem restoration, coastal engineering, coastal restoration, shoreline mitigation, dredged material management, and structural rehabilitation of the shoreline.

We integrate resilient and sustainable design thinking into the process from the beginning, working closely with the client and stakeholders to achieve the desired risk reduction.

## Public Pier Rehabilitation

For example, KCI provided structural and marine engineering design services for the reconstruction of Steeplechase Pier, which was damaged during Hurricane Sandy. The pre-storm construction consisted of concrete piles and pile caps supporting a timber deck and timber joist system. There was also a timber railing around the perimeter of the Pier.

Following an inspection and condition assessment we designed the replacement of the deck and substructure components including new prestressed, precast concrete beams anchored to the existing concrete pile caps. A new composite / recycled plastic lumber (RPL) deck was designed to replace the existing, damaged timber deck. A new aluminum railing system, aluminum and stainless-steel shade structures and benches constructed from the reclaimed decking of the original pier were also designed and installed.



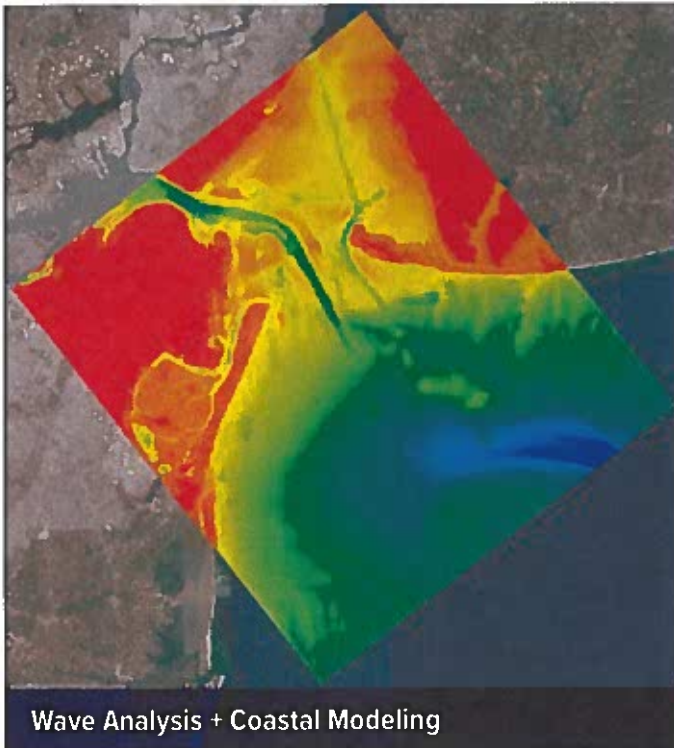
DAMAGED PIER

KCI also provided construction administration services including submittal review, RFI responses, construction progress site visits and attendance at construction site meetings.

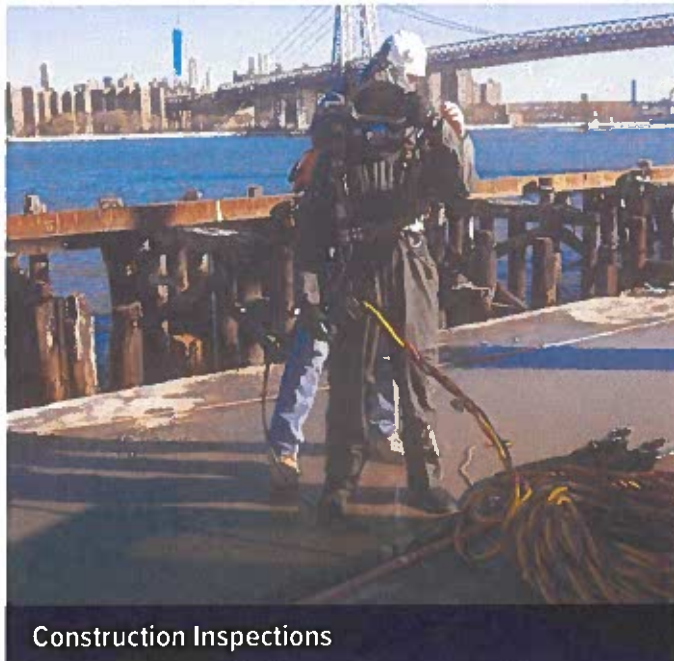


AFTER RECONSTRUCTION

# FIRM QUALIFICATIONS



**KCI provides construction support services within each of our divisions including construction management, construction inspections, construction administration, and resident engineering.**



## Additional Services

### Coastal Engineering

While there are many firms with structural and geotechnical engineers, few also have an entire market focus on delivering services related to coastal engineering and resiliency. KCI has a dedicated team of coastal engineers that can assess site-specific wind, wave, current, and water level conditions for both existing and future site conditions. Our advanced engineering capabilities include coastal hydraulic, wave, + flooding models, mooring + berthing models, jetties, groins, breakwaters, natural shoreline protection, beach nourishment, and dredging + reclamation. These models provide critical insights that inform the design and implementation of effective coastal protection and management strategies.

### Surveying + GIS/GPS Capabilities

KCI's in-house survey team are led by licensed professional land surveyors, and operate using state-of-the-art industry surveying equipment, the latest software, remote / aerial applications and data tracking / monitoring. We offer topographic, hydrographic, aerial mapping, SUE, and GPS equipped drone surveys. These can also be used as analysis for flood inundation, scour and stabilization, water- quality studies, waterfront facility inspections, habitat mapping, dam removals and environmental spills.

### Construction Support Services

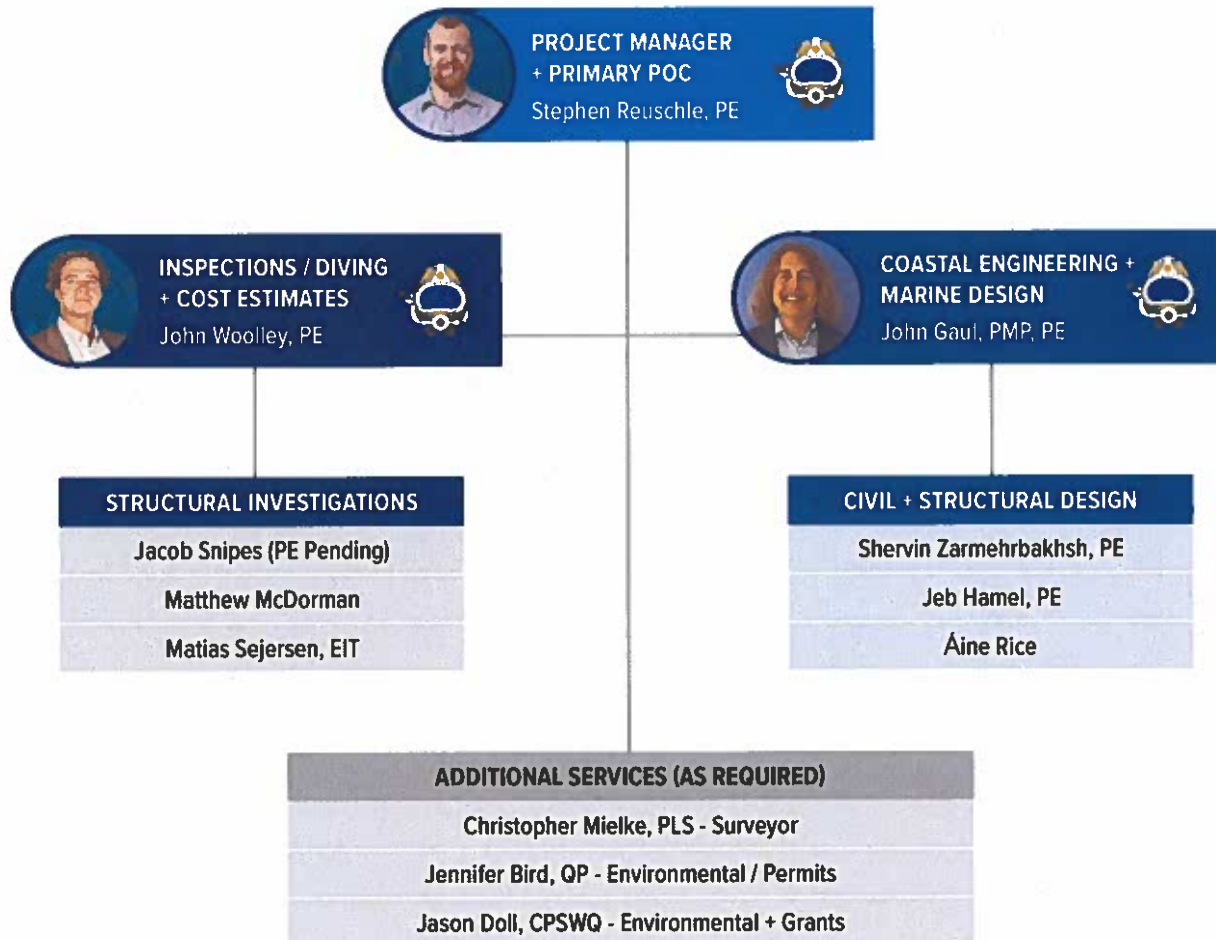
One of our many benefits is the fact that we provide construction management, construction inspection, construction administration, and resident engineering services within each of our divisions. We provide qualified, trained individuals to ensure that all material, methods, workmanship and end products meet the technical and quality requirements of the construction documents. To minimize contractor change orders, designs are reviewed for constructability and cost by KCI's marine construction and cost specialists that have an extensive amount of inspection, design, and construction experience on the waterfront.



# KEY PERSONNEL

## Key Project Team Members

Our project team members have specialized experience in timber pile inspections, condition assessments, data-analysis, and pier rehabilitation design. The key team members and support staff offer Civil Engineering with specific coastal engineering and/or marine design and construction experience, Structural Engineering, Surveying, Environmental Services and Permits (including CAMA Permitting), and Construction Cost Estimating for marine and waterfront structures.



= ADCI COMMERCIALLY-CERTIFIED DIVER



**Stephen R. Reuschle, PE**  
**Project Manager + PE Diver**



**7** Years with KCI

**22** Total Years of Experience

## Bio

Stephen is an ADCI-certified Surface-Supplied Air Diver and Surface-Supplied Air Diving Supervisor, as well as a Master SCUBA Diver. He has led underwater inspection teams for clients across the country to assess their bridges, piers, dams, wharves, outfalls, and more. Additionally, he has extensive experience conducting waterfront inspections for such clients as Chevron, ExxonMobil, and Marathon, as well as the Port Authority of NY and NJ, the Port of Los Angeles and Long Beach, as well as the US Navy and the Army Corps of Engineers. In addition to the supervision of field inspections, Stephen is responsible for business development, project management, reviews of JSAs/JHAs, condition / findings documentation, repair development and recommendations, and preparation and submittals of inspection reports.

## Project Experience

**USACE, Bridge and Waterfront Inspections, Southport, NC / Concord, CA / Fort Stewart, GA - Task Manager and Lead PE-Diver.** Steve was the POC and USACE Designated Diving Coordinator responsible for all diving activities on-site during waterfront and underwater bridge inspections at MOTSU, in Southport, NC, MOTCO Concord, CA, and Fort Stewart, GA. The Level I and II inspections at MOTCO in CA included Pier 3, which is a massive loading 4,370 linear feet pier, containing roughly 5,000 piles supporting two loading cranes and multiple rail lines. Additionally, a pedestrian access walkway added another 630-foot-long pier section and 183 timber piles. The inspections also included 2,800 foot Pier 2, recently rebuilt, with approximately 1,200 concrete piles. Steve also prepared field inspection data sheets and managed the report preparation. These comprehensive above-water and underwater inspections included timber and concrete piles, cross members and the connection hardware, timber and concrete pile caps, longitudinal beams, deck planks, timber and concrete curb rails, mooring hardware, utilities and supports, concrete and asphalt decks, railroad tracks, and buildings.

**Port Authority of NY + NJ, Marine Terminal Pier 12 and Bulkhead Condition Assessment, Brooklyn, NY, Dive Supervisor and Engineer / Diver.** Steve was responsible for all safety and operational aspects of underwater inspection of the pier and the accompanying shoreline bulkhead. The condition assessment included inspection of the pile supported pier and more than 500 feet of shoreline bulkhead. Elements inspected included steel pipe piles, timber piles, concrete pile extensions, concrete decking, steel sheet pile, and mooring hardware.

**Chevron, MOTEMS Richmond Long Wharf Underwater Inspections, Richmond, CA, Dive Supervisor and Engineer / Diver.** Steve was responsible for day-to-day dive operations and underwater inspection of the Long Wharf at the Richmond Chevron refinery. Inspection included Level I, Level II, and Level III efforts on concrete and steel members.

**US Navy, Puget Sound Naval Shipyard Condition Survey, Bremerton, WA, Dive Supervisor and Engineer / Diver.** Steve conducted underwater inspection of steel, concrete and timber piles that support the berthing platforms and wharf for ships berthed at the Puget Sound Naval Shipyard. The steel and concrete piles were found to be in good condition, while some of the timber fender piles showed severe damage from marine borers or impact damage from berthing ships.

## Licenses

- Professional Engineer: NC #37485 and 21 other States

## Certifications & Registrations

- ADCI Surface-Supplied Air Diving Supervisor / 45509 / Exp - 05/01/2029
- PennDOT Bridge Safety Inspector
- NHI-130053 Bridge Inspection Refresher Training
- NHI-130091B Underwater Bridge Repair and Rehab
- NHI-130091 Underwater Bridge Inspection
- OSHA Confined Space Entry Training (29 CFR 1910.146)
- 40-Hour HAZWOPER
- Transportation Worker Identification Credentials (TWIC)
- CPR, First Aid, Oxygen Administration

## Education

- BS Mechanical Engineering / North Carolina State University / 2005

## Diving Inspections

Stephen is the Dive Practice Leader in our Raleigh, NC office. He has been performing diving inspections for over 20 years and is extremely familiar with timber pile investigations and Level I/II/III procedures for underwater inspections. He has led underwater inspections in over 30 States and 6 Countries, diving on timber, steel, and concrete structures in both coastal and inland waters.



**John Wolley, Jr., PE**  
Inspections / Diving + Cost Estimates



8

Years with  
KCI

15

Total Years  
of Experience

## Bio

John "JJ" Woolley is a licensed Professional Engineer and ADCI-certified commercial diver with 15 years of underwater inspection and structural rehabilitation design experience for piers, fender systems, barges, and docks composed of steel, timber and concrete construction. JJ's experience consists of a wide array of assignments including hydrographic surveys, waterfront inspections, and structural and protective pile encasements. His dive inspection experience and skills include: destructive and non-destructive testing; cathodic protection testing; welding inspections; wood sample evaluation; steel thickness readings; pile diameter measurements; pile wrap evaluations; concrete chloride testing and petrographic analysis; concrete / epoxy jacket repair installation; and computer-based data collection/reduction.

## Project Experience

### **Pier Inspection and Demolition, New York, NY, Project Manager / PE**

**Diver** - JJ conducted a comprehensive inspection of a pier scheduled for demolition. The assessment involved diving, swimming, and above-water evaluations of the waterfront structures designated to support demolition staging operations. JJ also contributed to the development of demolition documents that outlined the staged demolition approach and specified the use of select equipment to ensure safe and efficient execution.

### **Pier Substructure Repairs, Brooklyn, NY, Project Manager / PE Diver.**

Pier repairs at this public waterfront site. JJ conducted a follow-up routine inspection from a recent inspection to identify and confirm critical pile repairs. He then developed comprehensive design documents outlining the scope, methods, and materials required to complete the necessary repairs. Throughout construction, he performed detailed diving inspections to monitor progress, assess underwater conditions, and confirm that all repairs were executed in accordance with the design intent and project specifications.

### **Pier + Bulkhead Condition Surveys, NY + NJ, Team Leader / PE Diver.**

JJ performed condition survey inspections of bulkheads, piers, culverts, and bridge structures above and below the waterline. His work included the use of ultrasonic calibrated instruments to determine remaining steel thicknesses and cathodic potential readings, the collection of pile diameter measurements, and computer based data collection.

### **Pier 57 Substructure Repairs, New York, NY, Project Manager / PE**

**Diver.** JJ conducted a routine inspection of the pier substructure, then managed the design, permitting, and construction oversight of concrete pier repairs underwater and in the tidal zone. The pier repairs included pile encasements and spall repairs. JJ also oversaw the state and federal permitting effort and coordinated with the property owner, Hudson River Park Trust.

### **Pier Inspection, Village of Ossining, NY, Project Manager and Team**

**Leader / PE Diver.** JJ provided waterfront inspection services to the Village of Ossining for a Pier, located on the Hudson River. JJ's scope of work included a topside and underwater inspection of the structural elements of the Pier and inspection letter report with condition ratings for the structural elements, as well as for the entire site, above water and underwater photos, and general repair recommendations with ROM cost estimates.

## Licenses

- Professional Engineer: NY, NJ, CT, TX

## Certifications & Registrations

- ADCI Surface-Supplied Air Diving Supervisor, #57424
- #FHWA-NHI-130053 Bridge Inspection Refresher, 2023
- #FHWA-NHI-130055 Safety Inspection of In-Service Bridges, 2019
- #FHWA-NHI-130091 Underwater Bridge Inspection, 2011
- OSHA Confined Space Entry Training (29 CFR 1910.146)
- OSHA 30-Hour Construction Safety Training
- Transportation Worker Identification Credentials (TWIC)
- CPR, First Aid, Oxygen Administration, and Bloodborne Pathogens

## Education

- BS, Industrial Engineering, Lehigh University, 2010

## Maritime Construction Experience

As a former project manager for a marine contractor, JJ dedicated his early career to supervision and review of specialized waterfront + maritime construction activities. JJ's specialties include diving inspections of pile encasements + repairs, inspecting, monitoring, and overseeing pile driving, and maintaining adherence to client specifications.



## John Gaul, PE, PMP, ENV SP

### Lead Design Engineer



### Bio

John is a Civil/Structural Engineer and an ADCI-certified Surface-Supplied Air Diver and Surface-Supplied Air Diving Supervisor with over 21 years of experience in the inspection, analysis and design of bridges, tunnels, offshore, and waterfront structures, and management of these projects. He has inspected more than 100 bridges and numerous other structures, including tunnels, piers, wharves, drydocks, and ancillary structures, as well as providing repair design or replacement on over a dozen transportation structures (bridges, culverts, and tunnels). He also has performed or managed load rating analysis on more than 30 types of bridge and highway structures. He is proficient in the use of AutoCAD, CIVIL 3D, a variety of structural analysis and design programs, and Building Information Modeling (BIM) software (particularly Revit).

1

Year with  
KCI

21

Total Years  
of Experience

## Project Experience

**Pier 2 Rehabilitation at Washington Navy Yard, Washington, DC, Project Manager / Structural Engineer.** John inspected the existing waterfront facility and developed final repair documents for the renovation of Pier 2. His work included above- and below-water field investigations and repair details for timber piles, batter piles, fender piles, timber pile caps, timber curbs, deck areas, mooring features, shore power utilities, receptacles, and related connection hardware.

**Pier 4 Trestles 1A & 4 Complex Structural Repairs Naval Weapons Station Earle Pier, Colts Neck, NJ, Project Manager/Structural Engineer/Team Leader.** John inspected the facilities and developed repair documents for rehabilitating Trestles and a Pier for the U.S. Navy. Concrete specimen testing was performed on prestressed concrete beams to determine the cause of pattern cracking in the beams, and to develop a repair for the beams. John also assisted client with the development of regulatory submittals.

**Pier 5 Replacement at U.S. Navy Norfolk Naval Shipyard, Portsmouth, VA, Structural Engineer.** John developed demolition plans for the existing Pier 4, & 5, and Berth 25 & 31 including the design of approximately 200 LF of open wharf structure comprising a steel bulkhead, prestressed concrete piles and planks, and mooring hardware. John also performed construction inspection of piles and pile caps after installation.

**USACE – Military Ocean Terminal Concord (MOTCO) Waterfront Inspection, Concord, CA (2016), Structural Engineer / Diver.** As a member of the inspection team, John completed waterfront inspections at MOTCO, a large military loading facility with three major loading piers totaling nearly 15,000 linear feet and approximately 5,000 piles per pier. The facility included timber and concrete pile-supported piers, loading cranes, rail lines, a barge pier, and smaller mooring piers. Inspection work included evaluation of timber and concrete piles, timber cross members, connection hardware, pile caps, longitudinal beams, deck planks, curb rails, mooring hardware, utilities and supports, concrete/asphalt deck surfaces, railroad tracks, and ancillary buildings. John's inspection included Level I, II, and III underwater inspections, including destructive and non-destructive timber testing using pencil cores, 2-inch diameter cores, resistance drilling, and full pile samples for laboratory testing.

Statement of Qualifications  
Holden Beach, NC - Town Pier

## Licenses

- Professional Engineer: NC #42709 + MD, VA, DE, FL, OH, PR, USVI, TN, GA, NY, NJ, DC, LA, SC

## Certifications & Registrations

- Project Management Professional (PMP), #3232507
- Envision Sustainability Professional (ENV SP)
- ADCI, Surface-Supplied Air Diving Supervisor, #46783
- DCBC, Restricted Surface-Supplied Supervisor, #20121054
- OSHA 10-hour Construction Program (2011)
- National Highway Institute (NHI) - Eleven (11) Bridge + Tunnel Certificates for Underwater / Topside Inspections, Load Ratings, and Design Courses

## Education

- MEng, Civil Engineering, Old Dominion University, 2010
- BS, Civil Engineering, Old Dominion University, 2007

## Maritime Design Experience

John has extensive maritime design experience for waterfront facilities, including timber and concrete piers, pile-supported structures, bulkheads, fender systems, mooring structures, and coastal access improvements. His work includes condition assessment, repair design, replacement alternatives, construction documents, cost estimating, and construction-phase support for public and private marine infrastructure.

# Section 3.

## Relevant Project Samples





John Gaul, PE  
Inspecting Timber Pile Repairs Post-Construction

## LOCATIONS

Southport NC + Concord, CA

## OWNER | CLIENT

United States Army Corp of Engineers (USACE)

## DATES

2010-2025

## SERVICES

Underwater Pile Inspections  
Above Water Inspections  
Comprehensive Report  
Repair Design (Pile Wraps)

## VALUE

\$3,682,706

## REFERENCE

Rodney Gonzalez  
USACE ERDC  
(610) 634-2245  
[rodney.n.gonzalez@usace.army.mil](mailto:rodney.n.gonzalez@usace.army.mil)

# USACE MOTSU + MOTCO Facilities

## WHARF AND PIER INSPECTIONS

KCI completed site and underwater inspections at two USACE maritime facilities in Southport, NC and Concord, CA. Our duties included inspection of concrete piles with fiberglass jackets, concrete pile caps, fender systems, and timber platforms in accordance with ASCE MOP 130 marine facilities inspection and assessment standards. In the field, our divers obtained measurements, took photographs, and recorded data necessary for the preparation of inspection reports.

A three-person team of ADCI-certified commercial divers, utilizing surface-supplied air diving equipment, and led by a Professional Engineer-Diver completed a 100% tactile visual inspection and an in-depth examination of the wharf, barge, and pier components. A Level II and Level III effort inspection was performed in order to collect as much data as possible, such as remaining steel thicknesses, elevation of elements, and accurate dimensions of various members to allow for a cursory structural analysis to be performed, and a rehabilitation concept to be developed.

Elements were cleaned of marine growth and corrosion by-product, as needed, in order to collect this information. The assessment also included the rating of elements per ASCE standards, and obtaining detailed measurements such as coating loss, remaining steel, and electrical potential readings.

Once the inspection was complete, KCI provided a detailed report which outlined the condition assessment rating of each structure with supplementary explanations of observed defects to support this condition assessment rating. This report included a detailed spreadsheet of all measurements collected, damage rating of the defects observed, photographic representations of damage ratings, and references.



Timber Pile Repairs

#### **Challenges and Solutions:**

The inspection was conducted in collaboration with the Port to limit impacts on port operations due to existing vessel schedules. A pre-inspection meeting with terminal personnel was planned prior to starting the project. In addition to discussing vessel schedules, we put in place notification procedures that would allow the facility to know the areas where inspections needed to take place the day prior so that vessels could be moved accordingly, and all stakeholders would be notified of hours of operation. Coordination meetings with terminal personnel took place at the start and end of each day thereafter. KCI's dive team was flexible regarding time windows proposed by terminal operators, and the project was completed safely, efficiently, on time, and on budget with no impact on terminal operations.



Station Oregon Inlet, North Carolina

## LOCATIONS

NC, MD, NY,

## OWNER | CLIENT

United States Coast Guard (USCG)

## DATES

2016-2020

## SERVICES

Bulkhead and Pier Design  
Construction Support  
Hydrographic Survey  
Marine Engineering  
Topographic Survey  
Underwater Inspections

## VALUE

\$1,600,000 (Bulkhead  
Construction Costs)

## REFERENCE

Lt. Avery Weston, PE, PMP  
Facilities Engineering,  
Environmental Reviewer  
Facilities Engineering Coast  
Guard Yard  
(410) 636-4098  
[Avery.L.Weston@uscg.mil](mailto:Avery.L.Weston@uscg.mil)

# USCG MATOC

## UNDERWATER + TOPSIDE INSPECTIONS WITH DESIGN AND CONSTRUCTION

KCI provided inspection, surveying, and marine design services for the rehabilitation of waterfront assets located at USCG facilities. Inspections and reports were completed per USCG specifications and the ASCE Waterfront Facilities Inspection and Assessment procedures manual.

### Four Facilities Waterfront Inspections | USCG Sector, North Carolina

KCI completed an underwater and above water inspection at four facilities along the North Carolina coast. The facility inspections consisted of timber pile supported Piers, high level concrete platform, timber dolphin clusters, rubber fenders, wharves, bulkheads, floating docks, and boat launch ramps.

Our PE-Divers inspected all underwater supporting steel/timber piles, support members, mechanical connections, and all concrete / steel elements.

### Waterfront Inspections | New York + New Jersey

Underwater condition surveys at USCG facilities The field office inspection consisted of a concrete wharf; timber, steel and FRP bulkheads; timber finger pier; marine railway; and concrete floating dock. In Sandy Hook, we inspected the boat hoist wharf, boat hoist piers and extensions, concrete floating docks, a breakwater, a breakwater extension, timber groin, remnant steel bulkhead, concrete fuel dock, WPB wharf, pier and floats, timber walkway and a floating dock.

### USCG Station Curtis Bay Bulkhead Replacement | Baltimore, MD

Inspection and design services to replace a 270 lf anchored steel sheet pile bulkhead. KCI mobilized a dive crew to inspect the structural elements of the bulkhead and prepare a report of their findings. We also conducted a hydrographic and topographic survey of the bulkhead and extending inland. We prepared an inspection report, performed preliminary calculations, and assisted with the preparation of conceptual design documents. KCI supported construction and supported the submission of permits and modifications.



Cleaning Marine Growth for Inspection



### Two USCG Stations | Fishers Island, NY / New London, CT

Level I and level II inspections of four floating docks, a granite quaywall, timber wharf, steel sheet pile bulkhead, boat ramp, a wave attenuator and rip rap shoreline at these USCG-owned facilities. We prepared a site-specific dive plan, performed underwater inspections per ASCE procedures and supported the preparation of reports. We also served as the Quality Assurance Officer and provided an analysis of structural load ratings.

### Battery Building | New York, NY

Underwater condition survey and multibeam hydrographic survey of the waterfront structures at the site. The routine inspection consisted of the Pier and a granite block seawall that included all substructure steel / timber piles, support members, mechanical connections and all concrete / steel supporting elements. We prepared a condition survey report that included the results of the inspection and survey, recommendations for rehabilitation and repair estimates.



Congers Boardwalk Timber Pile Inspections

#### LOCATION

Congers and Ossining, NY

#### OWNER | CLIENT

The Town of Clarkstown and Town of Ossining

#### DATES

2022 (Congers)  
2023-2024 (Ossining)

#### SERVICES

Pile Inspections  
Summary of Findings Report with Remediation Repairs  
Design of Structural Repairs

#### VALUE

\$75,000 (Congers)  
\$50,000 (Ossining)

#### REFERENCES

See below

## Public Pier Inspections and Rehabilitation Design

### Congers Lake Boardwalk Pile Inspection

The Town of Clarkstown built a boardwalk over a portion of Congers Lake in 2012.

KCI inspected 4,965 ft of the pile supported structure, and designed remediation repairs for several sections.

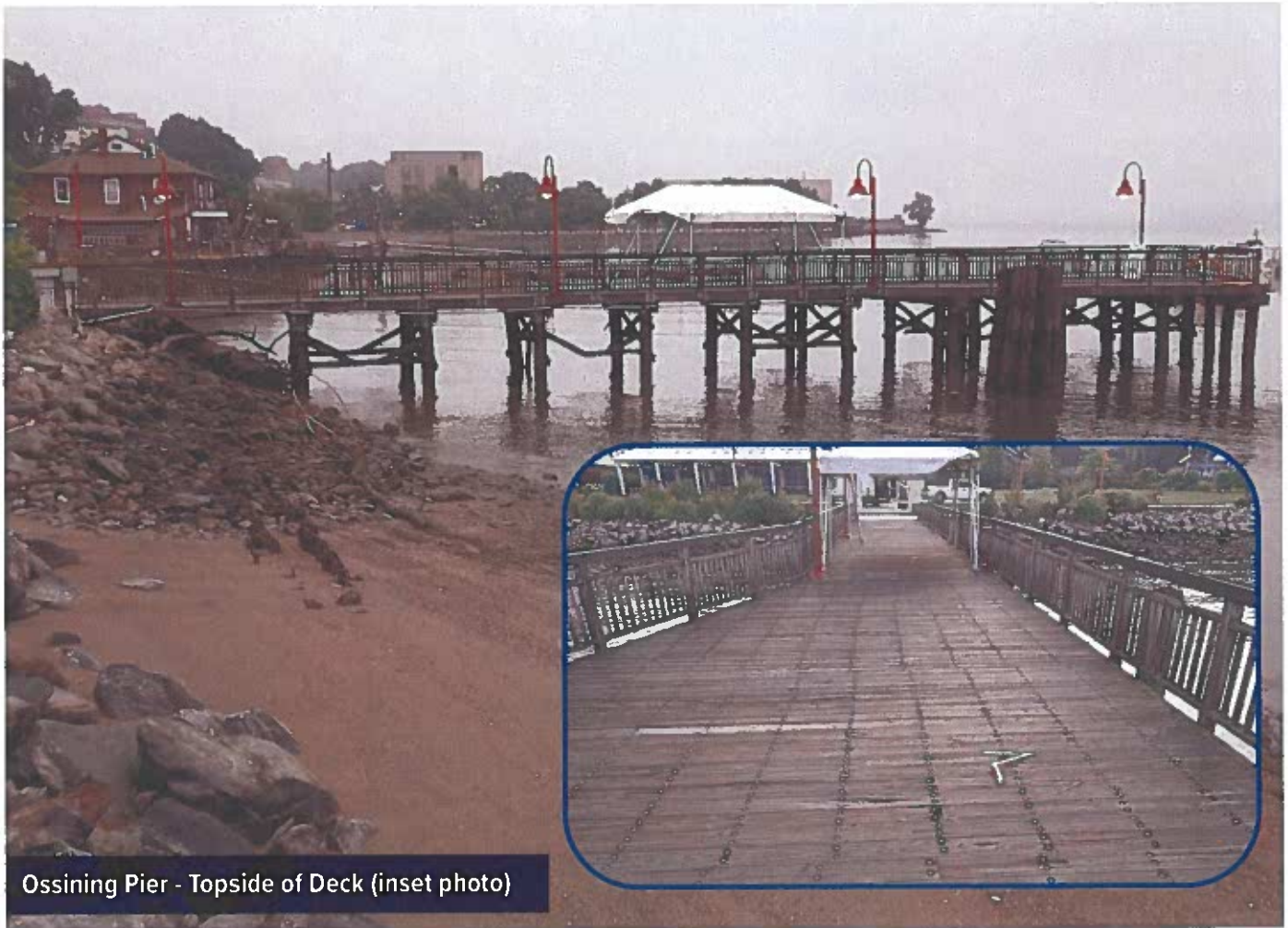
Our scope of work included an inspection and findings report, development of permit applications, and rehabilitation design construction documents.

Our engineer divers completed a routine level inspection of the pile supported trailway in accordance with the ASCE Marine Facilities Inspection and Assessment Manual. The team utilized a small boat and waders to access the timber piles, pile caps, joists, bracing, decking, and railings. They completed a hands-on and visual inspection of the structural elements, took photos, and recorded data. Upon completion, the team developed an inspection report with the observed conditions, inspection findings, field notes, condition ratings, budgetary cost estimates, and conclusions and recommendations.

Following submission of the findings report and direction from Clarkstown, we developed a remediation plan and construction documents for the rehabilitation of timber bracing, timber joists, pile caps, and railings at areas requiring priority repairs. We prepared preliminary and final design drawings which served as the bid / construction documents for contractors.

#### Reference:

Christopher Wagner, PE  
First Deputy Director, Engineering Dpt. - Town of Clarkstown  
845-639-2111  
[c.wagner@clarkstown.org](mailto:c.wagner@clarkstown.org)



Ossining Pier - Topside of Deck (inset photo)

### Ossining Pier - Dock Safety Inspection

KCI provided waterfront inspection services to the Village of Ossining for a Pier, located on the Hudson River. The goals of the project were to assess the conditions of the Pier, including anticipated service life, and identify general repair recommendations with Rough Order of Magnitude (ROM) cost estimates.

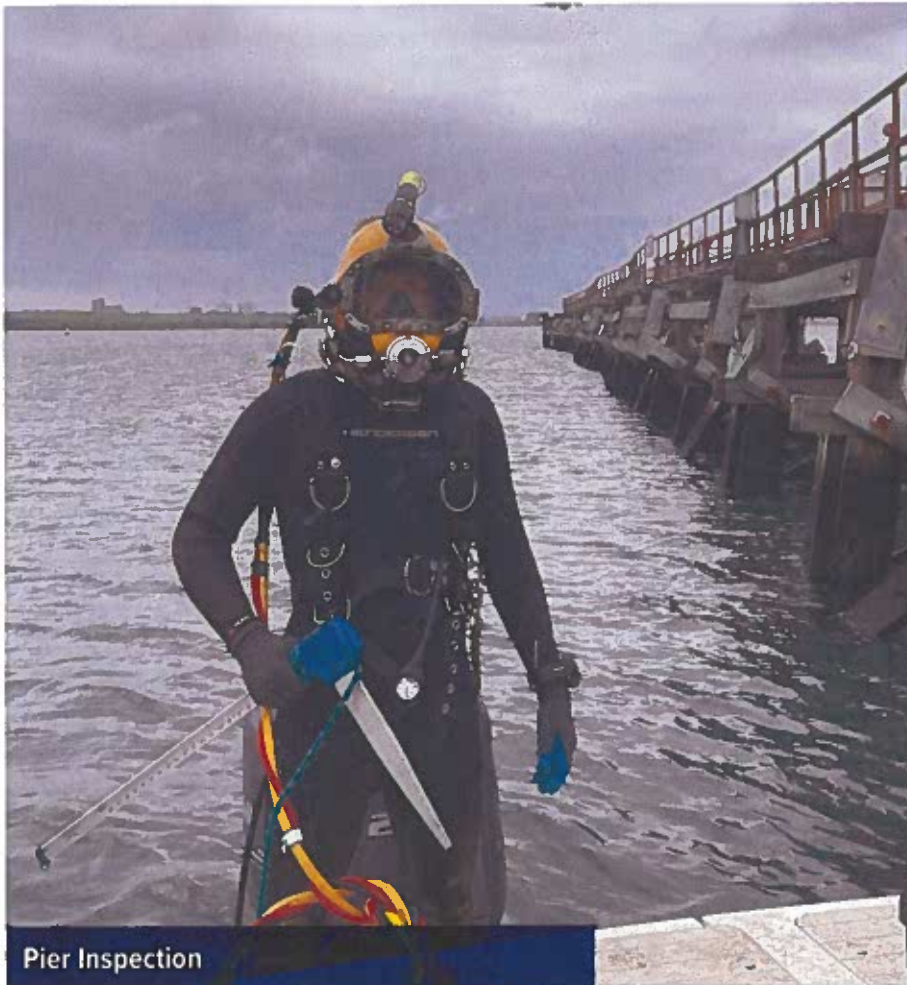
Our scope of work included a topside and underwater inspection of the structural elements of the Pier and an inspection letter report with a summary of the findings and an assessment based on those findings.

Our engineer divers and dive technicians reviewed existing drawings and historical images to determine the safest and most efficient means of completing the inspection. Field inspection sheets were developed to streamline documentation and data reduction. In addition, we prepared a Health and Safety Plan to identify site-specific risks, emergency procedures, project hierarchy, and schedules.

The inspection team, led by a NY PE and a Dive Safety Supervisor, inspected the deck elements and below deck structural components above Mean High Water (MHW). In addition, the team completed an underwater inspection of the Pier components below MHW. We prepared an Inspection Letter Report with condition ratings for the structural elements, as well as for the entire site, photos, and general repair recommendations with ROM cost estimates.

#### Reference:

William J. Garrison  
Recreation & Parks Superintendent - The Village of Ossining  
914-406-6013  
[WGarrison@villageofossining.org](mailto:WGarrison@villageofossining.org)



Pier Inspection

## LOCATIONS

New York + New Jersey

## OWNER | CLIENT

Port Authority of New York and New Jersey (PANYNJ)

## DATES

2020-Present

## SERVICES

Underwater Timber Pile Inspections  
Above Water Inspections  
Comprehensive Reports  
Repair Recommendations  
Rehabilitation Design  
Construction Support Services

## VALUE

\$2,000,000 (Contract)

## REFERENCE

Port Authority of New York and New Jersey, Quality Assurance Division / Engineering Department  
Matthew Walsh, PE  
(201) 395-3576  
[mbwalsh@panynj.gov](mailto:mbwalsh@panynj.gov)

# Pier and Wharf Condition Surveys

## PORT AUTHORITY MARINE TERMINAL INSPECTIONS

Through two separate on-call agreements with the Port Authority of NY + NJ, KCI is providing underwater and topside inspections, surveys, resident engineering, and underwater construction inspection services at Marine Terminals in NY and NJ.

From 2020 to 2024, we completed multiple inspections, provided rehabilitation design, and supported on-going construction activities. Projects were awarded through a competitive bidding process.

## Underwater + Topside Condition Surveys

We prepared for each inspection by reviewing the most recent inspection report to determine the safest and most efficient means of completing the field investigations. Field inspection sheets and an element information database were developed to streamline documentation and data reduction. The information database allowed for multiple attributes to be recorded for each element of the structure.

In addition, a Health and Safety Plan was developed to identify site-specific risks, emergency procedures, project hierarchy, and schedules. Investigations and reports were completed in accordance with the PANYNJ Quality Assurance Guidelines for Waterfront Structures and the NYSDOT Bridge Inspection Manual (BIM) for bridges and culverts.

Additionally, we obtained above and underwater photographs of existing conditions and deterioration. A detailed inspection report and priority repair report was submitted using the Port Authority's Structural Integrity Database. In addition to the reports, cost estimates were provided for all Priority Repair recommendations. The estimates were made using the Port Authorities Summary and Estimating Detail Excel Sheets. Backup calculations were also provided for the labor and material costs along with photos for each type of Priority Repair.



### JFK Piers, Docks, Stormwater Outfalls

In 2023 and 2024, we inspected multiple waterfront and marine structures at JFK International Airport. ILS Pier 4-22 included inspection of 580 timber piles from cap to mudline. The 10% hands-on inspection included selective cleaning of piles in the tidal zone, at mid-height, and at the mudline to allow for a closer analysis of the condition, pile diameter measurements, and probing with a pick to identify the soundness of the timber. Timber cores were taken to assess the extent of internal marine borer infestation. Bergen Basin Barge Piers and Docks – Inspection of five piers, as well as floating docks and gangway at Pier 3, which are located within Bergen Basin. The condition survey included all timber piles, timber pile caps and bracing, deck joists, decking, railing and curbs, pipe saddles and chocks, floats, and gangways. Thurston Basin Pier – Underwater and above-water inspection of the Piers timber piles, caps, bracing, deck joists, decking, railings, and curbs. Stormwater Outfall Structures – Condition survey of 24 culvert outfall structures (endwalls, wingwalls and aprons).

### Battery Park City and Hoboken Ferry Terminals

KCI mobilized a three-person dive team composed of a Professional Engineer-Diver, an Engineer Diver, and Dive Supervisor. The team conducted field investigations to determine the condition of the ferry terminal components by identifying structural and non-structural deficiencies. Observed deficiencies were evaluated on-site during the investigation by the Engineers to ensure that each component of the structure was properly inspected, and its condition was properly documented.

**Inspection Database Tool.** Due to the added effort required to develop both a condition survey report and priority repair report, we developed an inspection database capable of storing multiple rounds of inspection data for each individual element. This tool allowed the dive team to perform active quantity reviews of the previous inspection data while the diver was in the water. Additionally, the database tool allowed the team to collect and store priority repair measurements in an organized and itemized manner. The database tool significantly reduced office data reduction time needed to backcheck notes after the inspection was completed.



## LOCATION

St. Petersburg, FL

## OWNER | CLIENT

St. Petersburg, FL /  
Buro Happold / Skanska

## DATES

2012-2020

## SERVICES

Existing Conditions Assessment  
Sea Level Rise Impact Study  
Wind and Wave Climate Study  
Foundation Design  
Construction Engineering

## VALUE

\$93,000,000 (Construction)

## REFERENCE

City of St. Petersburg  
Raul Quintana, City Architect  
[Jose.Quintana@stpete.org](mailto:Jose.Quintana@stpete.org)  
727-893-7238

**PROJECT AWARD FOR BEST LAND-  
SCAPE/URBAN DEVELOPMENT  
PROJECT – ENR SOUTHEAST, 2021**

# St. Pete Pier

## DESIGN + CONSTRUCTION ENGINEERING SERVICES

St. Pete Pier, the “pier for everyone”, is a popular destination location for both the Central Florida community and tourists. The 0.6-mile pier features exploration and activity areas, children’s play spaces, fishing spots, education centers, local vendors, and a 5-story pierhead building at the end.

KCI was involved in the pier investigations, design development, and we provided construction engineering services for the building.

### Existing Condition Study and Survey

We provided the geotechnical engineer a list of geotechnical parameters, expected pile loads, and boring locations for the geotechnical survey. We reviewed the report issued by geotechnical engineer and utilized the findings for foundation design.

### Sea Level Rise Impact Study

We researched and reviewed local and/or the State of Florida adopted or proposed sea level rise projections. KCI included a linear supposition of increased water elevations in the review of design still water elevations.

### Wind and Wave Climate Study

KCI evaluated the environmental loads at the site (e.g., winds / wave / wake) during normal conditions and storm surge. To perform the study, historic data was obtained from wave buoys, anemometers, and tidal gauges. An Extreme Value Analysis (EVA) was conducted. The results of the analysis determined the design wind speed, water level, and height of the pier to keep waves from breaking against the pier deck, for the anticipated 75-year design life.

### Foundation Design

We designed the substructure components (piles and pile caps) that were to support the approach bridge, approach walkway, and the lens promontory. KCI developed 50% design development level foundation plans for “The Lens” concept. The foundation design was coordinated with the various project elements, including various levels of decking and varying base elevations for the pier’s canopy columns.



**Grillage System Design and Inspection**

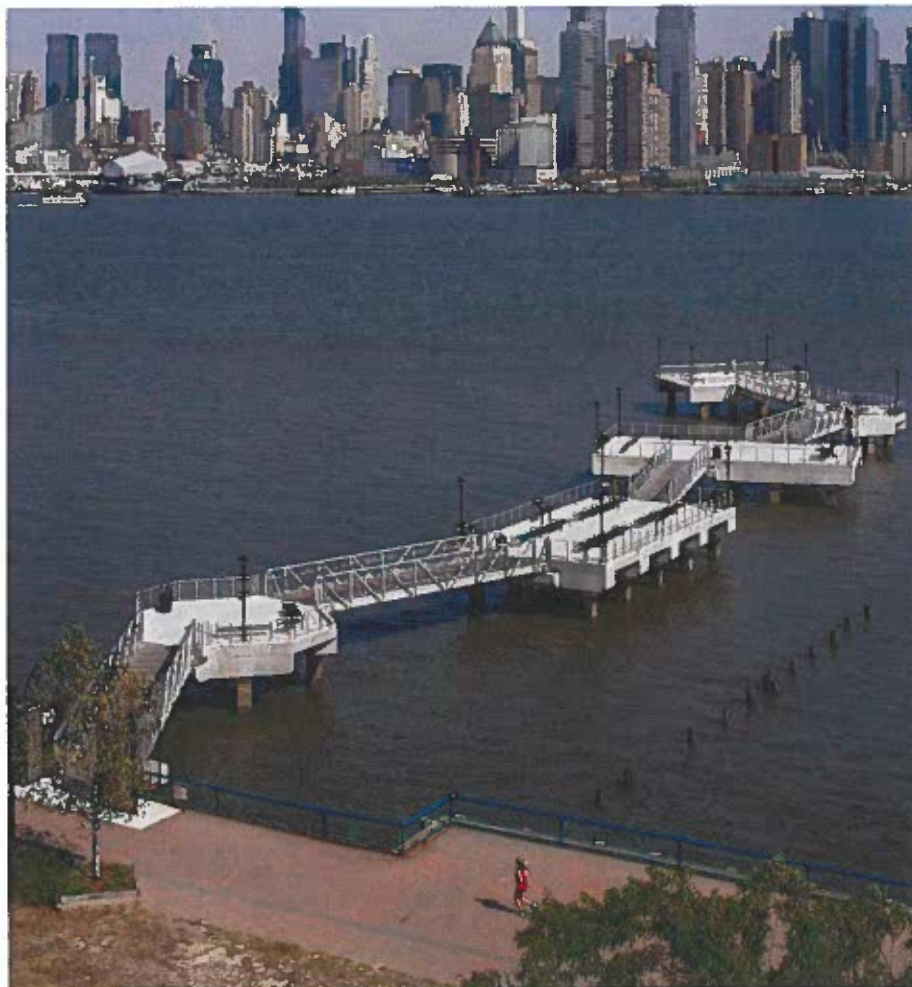
### Construction Engineering

KCI provided construction engineering, value engineering, and structural analysis load rating services for the new pier. We designed a grillage system of steel beams for pouring slabs that supported the new heavy weight restaurant / event space at the pier end.

A structural grillage system was developed for construction support and designed with the concrete pier deck that incorporated the steel H-beams used for the grillage system to provide additional slab support and increased live load capacity. This included point loads from a typical crane to be used in the future to lift materials and equipment to elevated floors of the building. Additionally, a lateral load analysis was performed for the pier substructure supporting the traffic lanes. This analysis demonstrated that fire trucks could safely operate at a maximum speed of 30 mph rather than an original limit of 5 mph. KCI authored a letter summarizing the analysis and opining on the capacity of the pier's marine deck and piles for supporting the additional lateral load.

As construction of the pier continued, KCI supported the project with additional construction and value engineering services. We provided structural analysis and design revisions in support of value engineering to reduce grillage system costs. Specific value engineering items included two grillage beam layout revisions to match scaffolding jack layouts provided by the scaffolding supplier, structural analysis to investigate the possibility of using the scaffolding supplier's in-stock aluminum beams in place of steel grillage beams, optimization of grillage system sizes based on H-beam availability and steel beam availability, optimization of grillage system sizes based on revised loading to consider the tapered edges of post-tensioned slab, and coordination calls on engineering options and to review analysis results.

KCI worked with the contractor and with the City of St. Petersburg to finalize the value engineering analysis and arrive at the best solution. Grillage drawings were revised to document the economized design as well as to provide details for permanently incorporating the H-beams with the slab to provide additional pier deck support.



## LOCATION

Weehawken, NJ

## OWNER | CLIENT

Township of Weehawken /  
RSC Architects

## DATES

2010 - 2016

## SERVICES

Site Surveys + Investigations  
New Pier Design  
Permit Support  
Construction Support

## VALUE

\$3,100,000 (Construction)

## REFERENCE

Steve Botbyl  
RSC Architects  
(201) 941-3040  
[sbotbyl@rscarchitects.com](mailto:sbotbyl@rscarchitects.com)

**1ST PLACE CATEGORY D: MUNICIPAL  
PARKS/RECREATION PROJECTS RE-  
CIPIENT-WEEHAWKEN RECREATIONAL  
PIER – NEW JERSEY SOCIETY OF  
MUNICIPAL ENGINEERS, 2016**

# Weehawken Recreational Pier

## DESIGN + CONSTRUCTION SUPPORT SERVICES

KCI provided marine structural design, surveying, and environmental permitting services for the construction of a new, 400-ft concrete pier in the Township of Weehawken.

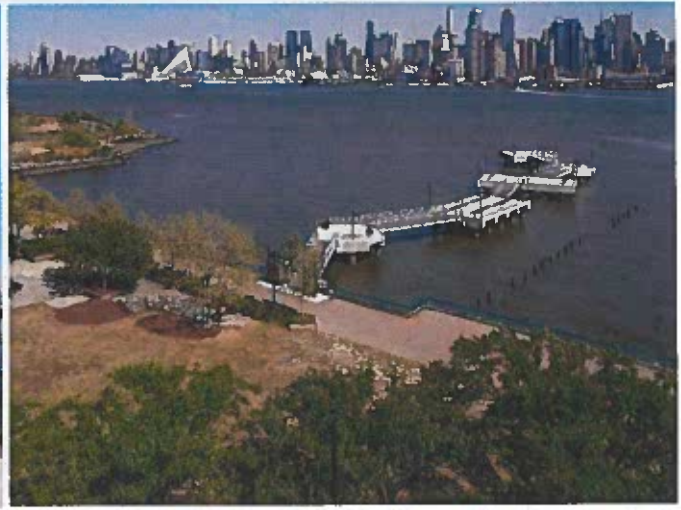
We developed a unique “pod” design concept for the pier with a series of platforms and interconnected walkways, providing a variety of recreational destination points for visitors.

KCI assisted the Township with the permitting and developed the structural design of the recreational pier, as well as provided engineering consultation and administration services during the construction.

The pier has ADA compliant walkways, various recreational amenities, and sitting areas. The archway welcomes visitors to the five “pods” connected by 10-foot-wide walkways. The pods range in size from 700 sq ft. to 2,500 sq ft. each designed for a specific open space use. The design of the project was based upon the feasibility study for the pier which included the pier type, length, and location along the existing bulkhead.

### Scope of Work

Phase 1 included a preliminary design and permit review, which comprised land and bathymetric survey work, a subsurface geotechnical investigation, an environmental study and permit pre-application review and preliminary structural design. Phase 2 consisted of performing engineering design calculations and preparing technical documents including plans and specifications. Phase 3 included construction phase support services including reviewing contractor submittals, responding to contractor requests for additional information or pay requisitions, and performing post-construction inspections for conformance with the prepared design documents.



## PROJECT HIGHLIGHTS

**Greater length for less money.** The design utilized shorter friction piles, and the Pod to Bridge design maximized offshore reach.

**Time Savings.** Piles were driven in pod sets and deck construction began upon completion of each set.

**Conservative environmental impact.** When piles were installed they sunk deep into the sediment under their own self weight. Pile driving with an impact hammer was minimized to the greatest extent possible. We incorporated turbidity curtains during pile installation to minimize increases in suspended sediment.

**Connected design.** The design concept connected the public to the waterfront throughout the harbor. Our conceptual alternatives explored spatial configurations, area allocations, adjacencies, circulation, and connections and linkages.

## EXHIBIT A

### Execution Page

By executing this Request for Qualifications ("RFQ"), the undersigned Vendor certifies that this response is submitted competitively and without collusion, that none of its officers or directors has been convicted of any violations under Chapter 78A of the North Carolina General Statutes (the North Carolina Securities Act), the Securities Act of 1933 or the Securities Exchange Act of 1934, and that it is not an ineligible vendor as set forth in N.C.G.S. § 143-59.1.

As required under N.C.G.S. § 143-48.5, the undersigned Vendor certifies that it, and each of its subcontractors, if any, for any contract awarded as a result of this RFQ, complies with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, including the requirement for each employer with more than 25 employees in North Carolina to verify the work authorization of its employees through the federal E-Verify system.

Proposals will be evaluated to rank the responding vendors in order of their qualifications and competence following which the Town will attempt to negotiate a fair and reasonable contract price with the best qualified vendor.

**The failure to execute/sign this response prior to its submittal shall render the response invalid such that it will be rejected. Late responses shall not be considered.**

Vendor: KCI Associates of NC, P.A.

Street Address: 4800 Falls of Neuse Road, Suite 200

City, State, and Zip: Raleigh, NC 27609

Mailing Address: 4800 Falls of Neuse Road, Suite 200

City, State and Zip: Raleigh, NC 27609

Federal ID No. or Social Security No.: 52-1680486

Name/Title of Person Signing on Behalf of Vendor: Erick J. Fry - Vice President

Signer's Telephone No.:

Signer's Mobile No.: 770-330-9060

Signer's Email Address: Erick.Fry@kci.com

Date: 6/8/2026

Vendor's Authorized Signature:



**EXHIBIT B**

Name of Vendor: KCI Associates of North Carolina, P.A.

The undersigned hereby certifies that [check all applicable boxes]:

- ☒ Vendor is in sound financial condition.
- ☒ Vendor has no outstanding tax or judgment liens.
- ☒ Vendor is current in all amounts due for payments of federal and state taxes and required employment-related contributions and withholdings.
- ☒ Vendor is not the subject of any current litigation or findings of non-compliance under federal or state law.
- ☒ Vendor has not been the subject of any past or current litigation or findings in any past litigation which may impact in any way its ability to perform its obligations under an agreement resulting from this procurement process.
- ☒ The undersigned is authorized to make the foregoing statements on Vendor's behalf.

**If one or more of the foregoing boxes is NOT checked, please set forth the reason in the space directly below.**

Signature   
Date 6/8/2026  
Erick J. Fry - Vice President  
\_ Printed name and title

## EXHIBIT C

Pursuant to N.C.G.S. § 143-64.31, the Town invites and encourages participation in this procurement process by businesses owned by minorities, women, disabled, disabled business enterprises, and non-profit work centers for the blind and severely disabled. This includes utilizing subcontractors to perform any required functions set forth in this RFQ. Any questions concerning NC HUB certification may be directed to the North Carolina Office of Historically Underutilized Businesses at (984) 236-0103 or [huboffice.doa@doa.nc.gov](mailto:huboffice.doa@doa.nc.gov).

1. Is Vendor a Historically Underutilized Business? ☐ Yes ☒ No

2. Is Vendor certified with North Carolina as a Historically Underutilized Business? ☐ Yes ☒ No

If so, state HUB classification: \_\_\_\_\_.

  
Signature

6/8/2026  
Date

Erick J. Fry - Vice President  
Printed Name and Title