

Technical Proposal for:
Repair or Replacement of Town Pier
Holden Beach, NC

November 22, 2024



MidAtlantic
Engineering Partners

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LETTER OF INTEREST



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 **Waterfront Design, Inspection, Rehabilitation, Stormwater Management Design, Waterfront Permitting, Architecture and Cost Estimating**. Our team has successfully advanced projects throughout the United States and the Caribbean Islands of similar size and scope.

KNOWLEDGE OF REGULATORY PERMITTING

MidAtlantic has extensive in-house experience to assemble, submit and navigate the regulatory environmental permitting process. MidAtlantic works within the guidelines while still pushing the envelope to ensure a successful project for both the client and the regulatory agencies.

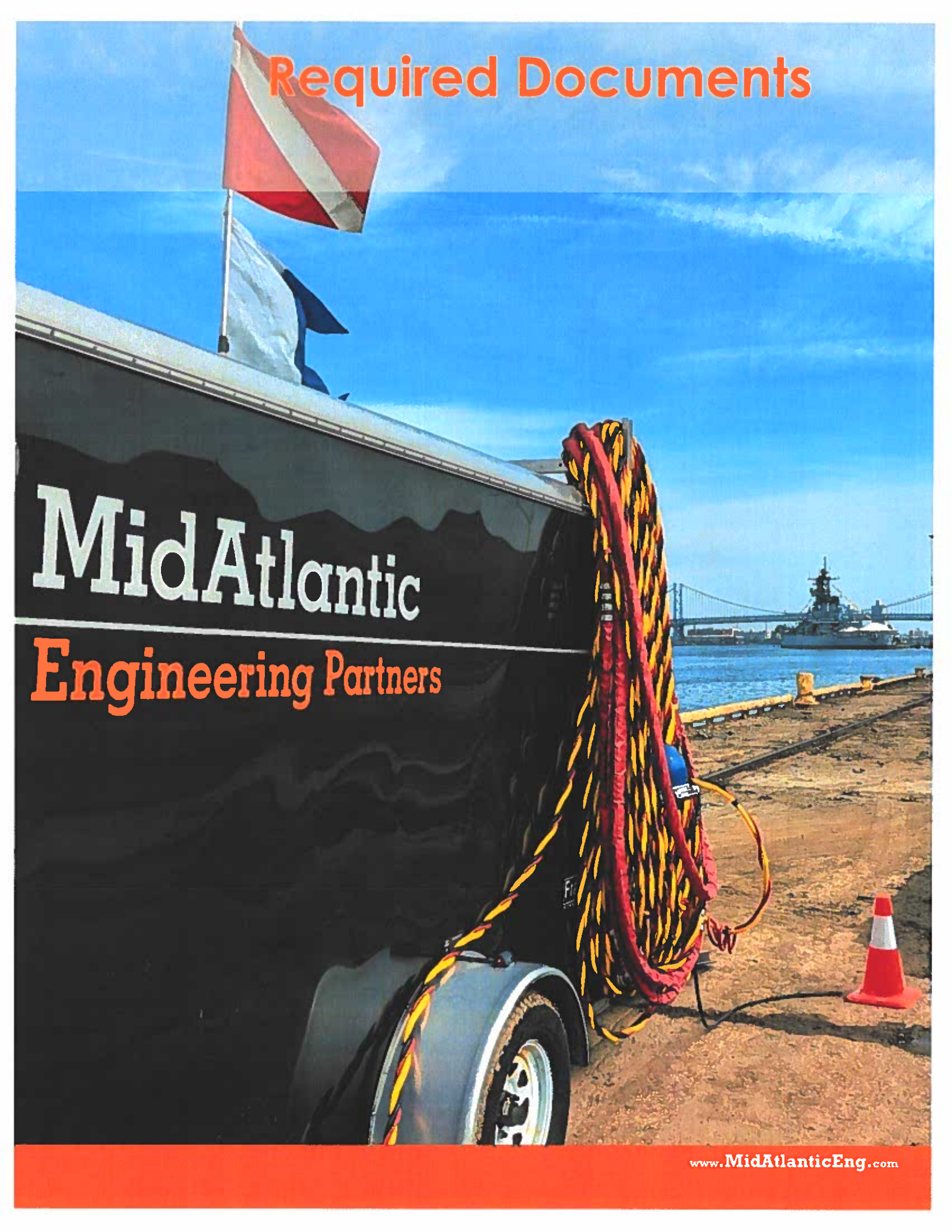
PROVEN RECORD OF SUCCESS

Over the last 18-months MidAtlantic has successfully performed design, secured permits and currently have projects in construction for pier stabilization, waterfront rehabilitation, Stormwater improvements and permitting projects at over a dozen facilities.

SITE-CIVIL & WATERFRONT FOCUSED

Our core service group is focused on Site-Civil Design and Waterfront infrastructure projects. Our engineers have master degrees in engineering and have dedicated their careers to sustainable designs.

Required Documents

The image features a large black semi-trailer with the company name 'MidAtlantic Engineering Partners' printed on its side. The trailer is parked on a dirt or gravel surface. A large coil of red and yellow braided rope is draped over the side of the trailer. In the background, a body of water is visible with a suspension bridge and a ship in the distance. A red and white traffic cone is on the ground to the right of the trailer. Two flags, one red and white and one white and blue, are flying from a pole on the trailer. The sky is blue with some clouds.

MidAtlantic
Engineering Partners

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 sub-contractors, 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

City, State, and Zip: Mt. Laurel, NJ 08054

Mailing Address: 2026B Briggs Road

City, State and Zip: Mt Laurel, NJ 08054

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

Name/Title of Person Signing on Behalf of Vendor: W. Stuart Lewis, Partner

Signer's Telephone No.: 484-209-9956

Signer's Mobile No.: 646-852-0473

Signer's Email Address: slewis@midatlanticeng.com Date: 11/22/2024

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 W. Stuart Lewis

Date 11/22/2024

W. Stuart Lewis, PE Partner

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.

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



Date 11/22/2024

W. Stuart Lewis, PE Partner

Printed Name and Title

Technical Approach





PROJECT APPROACH

MidAtlantic has prepared a comprehensive approach for completing the scope of work as outlined in the RFQ. The primary objective of this project is to arrive at a **clearly defined, cost sensitive feasible design for the waterfront structure, while exploring the most promising alternative solutions.**

We have provided a comprehensive approach to the entire program in order to provide a clear description of how we would complete this project.

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 —

Task 1 -Project Kick-Off

At the start of the project, MidAtlantic will hold a web based kickoff meeting which will include all team members from Holden Beach 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 well as 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.

At the completion of this task, it is our goal to establish the functional requirements for the project site development and have a written basis of design established.

Task 1.1- PHASE I —Engineering Services

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 structural stabilization analysis of the pier as a whole structure. As part of this analysis MidAtlantic will perform a site visit and perform a design level inspection of the pier to account for any changes in the structure from the last inspection.

During this design level inspection we will obtain detailed dimensions of all the structural elements, lengths, width if not already obtained by others. We will use local governing building codes, wave and wind loads as our controlling loads. We recognize that we will not have any of the following information:

1. Depth and total length of piles— We will assume a 15-ft pile embedment.
2. Soils—We will us Unified Soil Classification System (USCS) and assume well-graded sands, gravelly sands, little or no fines.
3. Timber Material Species—We will assume CCA treated Yellow Southern Pine.

Following our structural analysis, we will have a better understanding on the As-Is structural condition/capacity and what elements/components are undersized and need to be reinforced, rehabilitated or replaced.

Task 1.2 - Phase II Public Safety

MidAtlantic will develop repairs and replacements to make the Pier safe for the general public and include handrails, toe rails intermediate railing and ADA access ramps.

Task 1.3 - Phase III Plumbing, electrical, mechanical and decking replacement

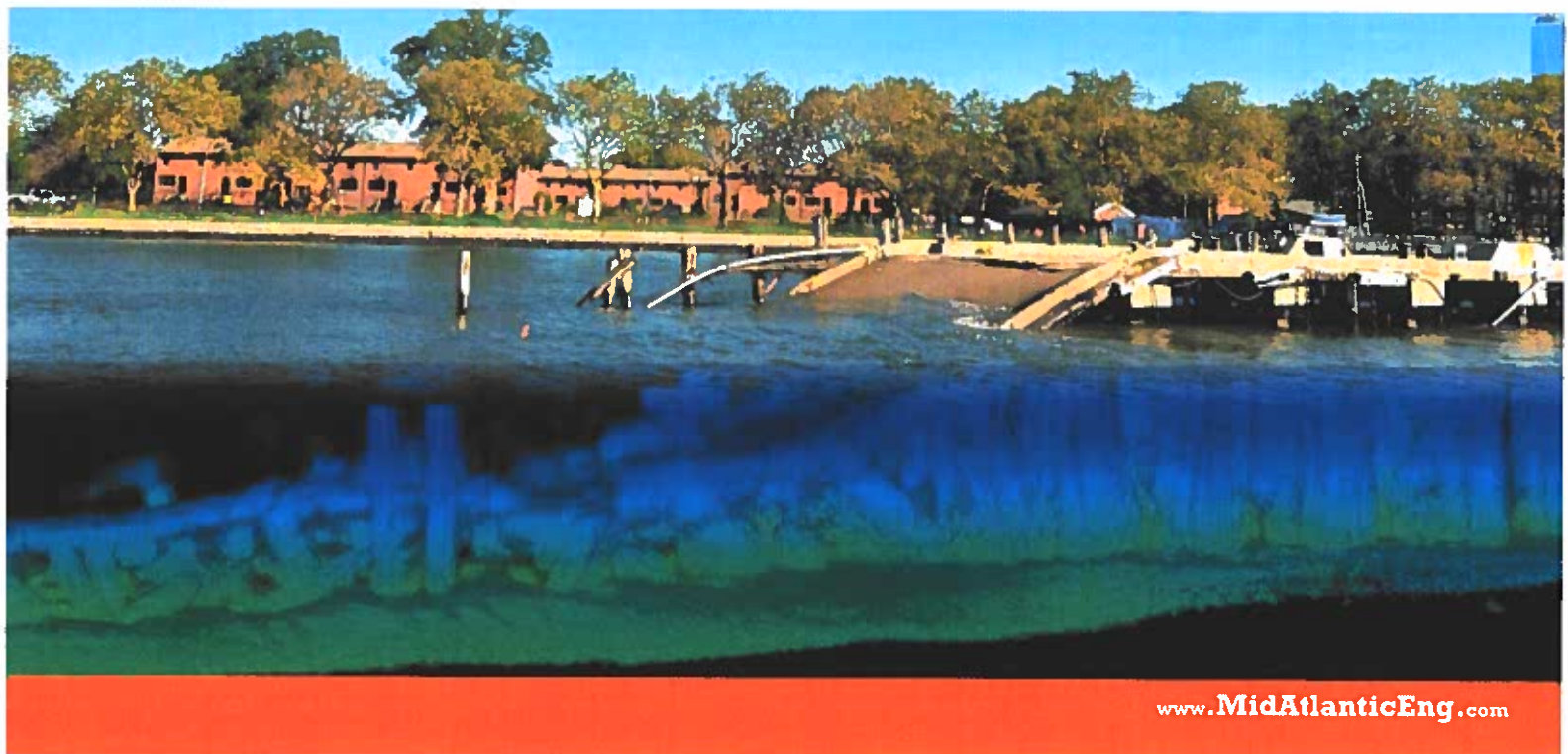
While MidAtlantic performs the design level inspection in task 2, particular effort will be taken to review the current plumbing, electrical, mechanical and timber decking. During our inspection we will inventory all components and create a list of items that can remain, rehabilitated or replaced.

Task 1.4 - Phase IV - Pier Extension

MidAtlantic understands there is a desire to extend the pier an additional 250 feet to restore the pier to its original 1000 –foot length. In order to properly perform this preliminary design the following survey efforts will be required:

1. Hydrographic survey 250-ft offshore of the existing pier. This information will provide us with depth to mudline which will be used to calculate the overall length of pile exposed.
2. A sidescan sonar image of the mudline to look for historic pile stubs, which we will want to avoid during construction.
3. Geotechnical borings to confirm the composition of the soils.

For this preliminary phase of the work, we recognize we might not have all the additional data listed above. We will be conservative on the performance of the design for the extension. We will assume a waterdepth and soil similar to task 2.



TASK 1.5 - CLASS 3 COST ESTIMATE

MidAtlantic will prepare three(3) Class 3 Cost Estimate, based upon engineering concepts generated in the previous task. Due to the level of detail associated with the engineering concept, the order of magnitude cost estimate will carry 20% contingencies.

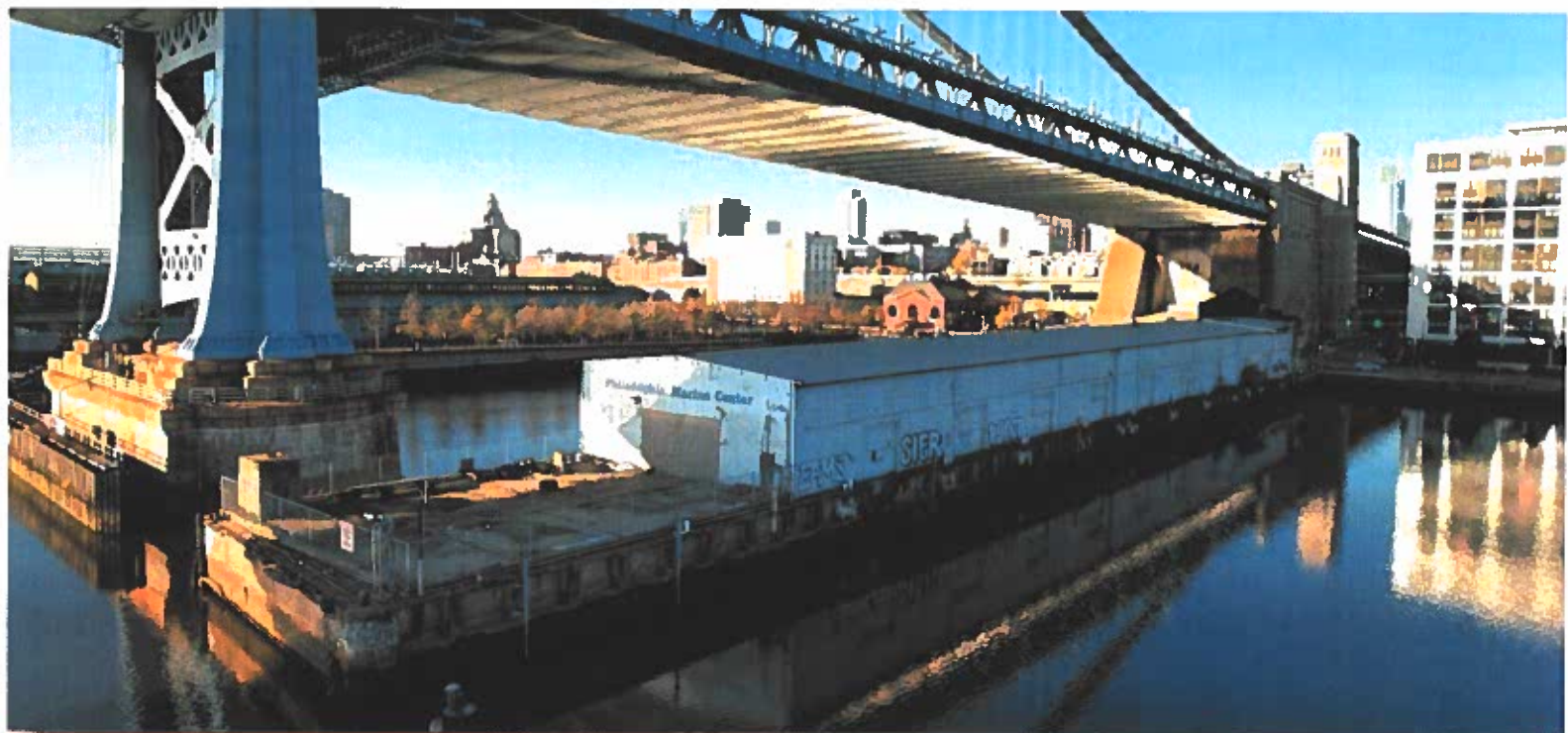
MidAtlantic develops our cost estimates on actual material, labor and equipment costs. These are then combined with our understanding of construction productivity to prepare our opinion of the costs necessary to complete the work. MidAtlantic will source unit prices from manufactures/supplies. The cost estimate will be prepared by one of the field team members in conjunction with our staff of experienced managers.

Within the cost estimates we will include additional engineering scope/investigations items required per option. (i.e. soil borings, etc.)

The three(3) cost estimates we will generate are the following:

1. Rehab Pier (Structural Stabilization, repairs, safety, ADA, Plumbing, Electrical etc.)
2. Remove and replace the whole pier structure for 750-ft and 1,000-ft.
3. Adding a 250-ft extension to the existing pier.

As part of our cost estimate we will associate and forecast cost for maintenance and repair plan over a 30-year design live. These costs will be represented in FY2025 dollars with a 3% escalation year over year to 30-years.



TASK 2 - PRELIMINARY DESIGN—REPLACE PIER

In this phase of the project, MidAtlantic will develop a 30% concept drawings to replace the entire pier. Our design will be conservative as we will need geotechnical soil borings to properly size and design the deep foundation elements for the pier. We will use local wind and wave forces for the design assumptions. We will perform our design using load and resistance factor design (LRFD). MidAtlantic uses a variety of different design software for pier design. We will use DeepFND for the deep foundation elements and we will use Enercalc for the stringers, headers, decking etc.

The typical nature of a pier is repetitive construction. We will design for the worst case scenario, i.e. deepest water and work back from there.

Following the completion of the pier design, we will develop a Class 3 cost estimate for a 750-ft pier and a 1,000-ft pier.

Recognizing that this pier was historically 1,000-ft long and is no longer there, we are inclined to believe that a new structure will not be made from Timber, as history at this site has proven that the strength of timber material is not adequate.

TASK 3— MAINTENANCE AND REPAIR PLAN

MidAtlantic will develop a draft maintenance and repair plan document. The document will outline inspection frequencies, standard repair details anticipated to be required over the life of the pier (30-years). We will develop standard operating conditions and/or load restrictions, i.e. during severe weather events having the pier closed to the public. Following a major event (natural or man-made) performing a post event inspection.



TASK 4- PROJECT SCHEDULE

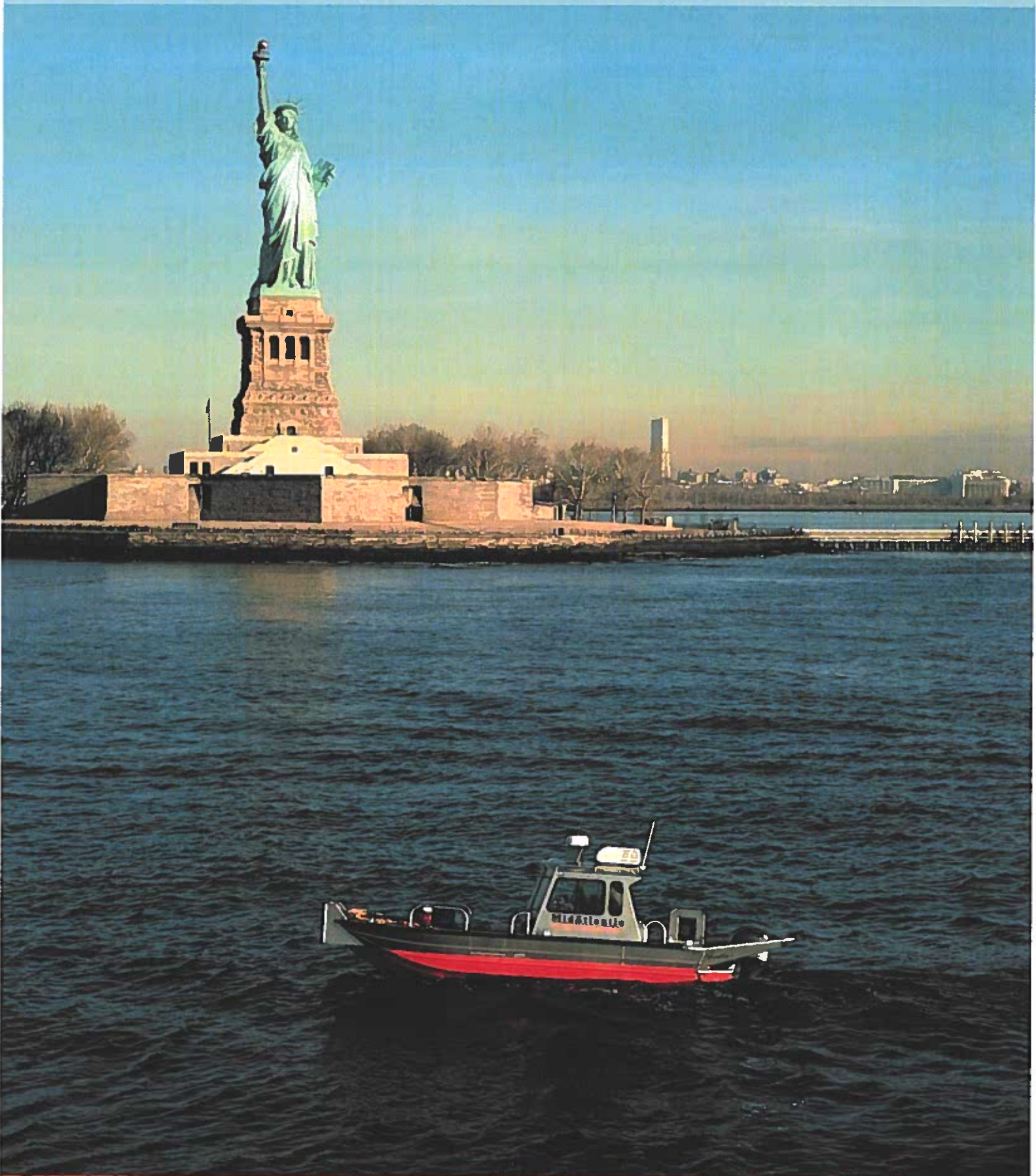
MidAtlantic will develop a project schedule once a selection from all stakeholders has been made, i.e. Rehab/repair or remove and replace. Within the project schedule we will list key milestones, potential in-water construction moratoriums and additionally include standard practice window shutdowns for offshore marine construction, i.e. Sept to April will typically have larger storm events, so we will therefor want to target construction to occur between May to August. Our project schedules for each option will be developed in Gantt format schedule, showing start and end dates along with sequences and depended tasks linked.

SCHEDULE

Our Team recognizes the importance of working closely with our clients, helping to establish and fully understand the specific needs and timing of the project. We know from experience that the key to successful project execution is 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 delay 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 schedule critical path



FIRM PROFILE



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



321 W. State Street, Media, PA 19063



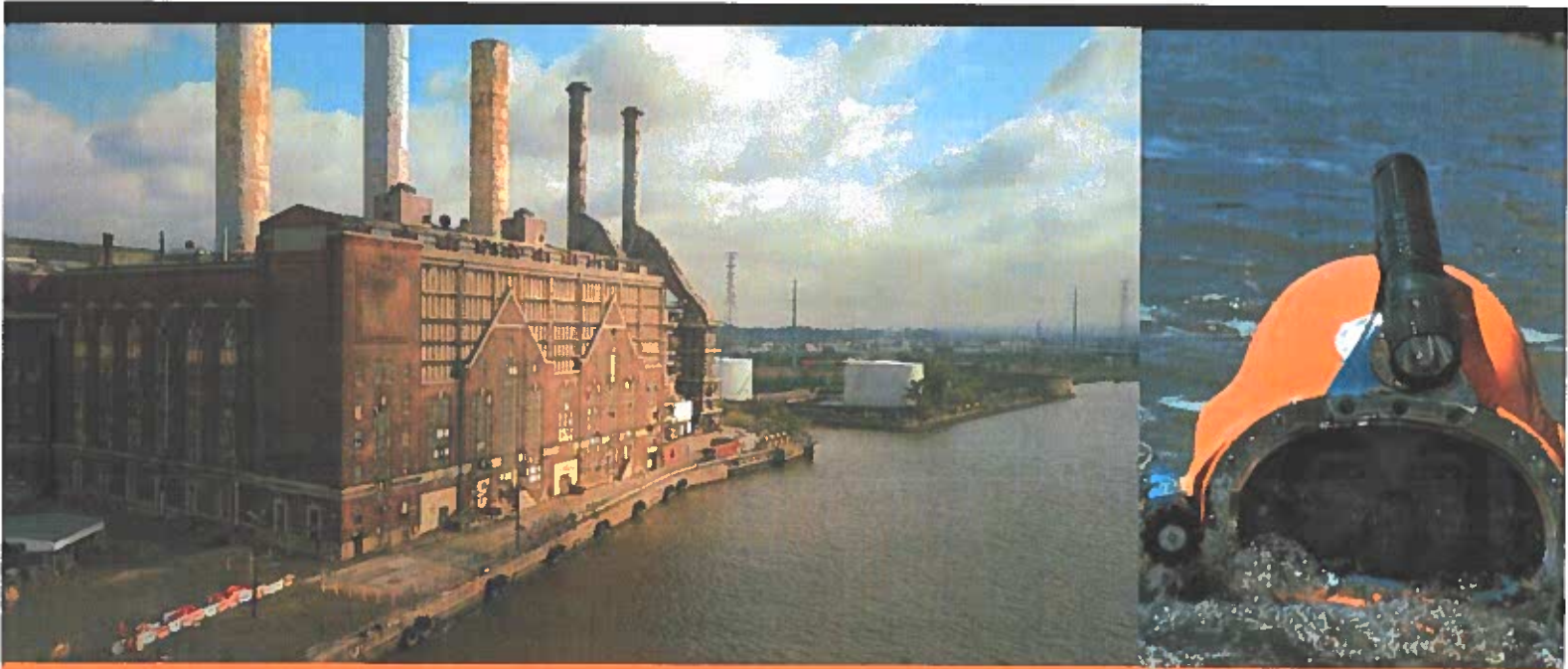
2026B Briggs Road, Suite 300, Mt. Laurel Township, NJ 08054



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

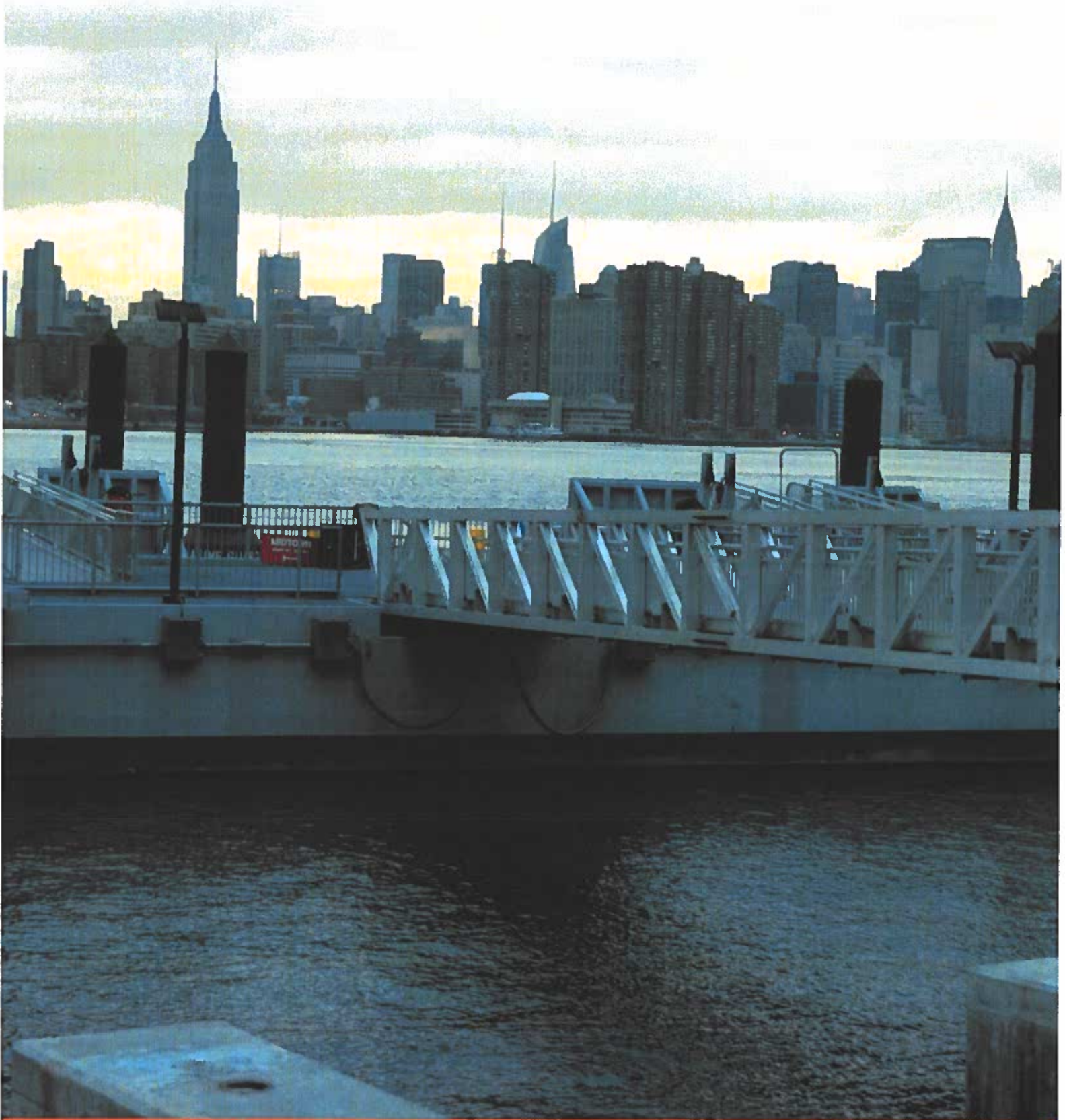


Contractor Oversight



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

RELEVANT PROJECTS



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.



Stuart Lewis, PE
M: 646.852.0473
O: 609.910.4450
slewis@midatlanticeng.com

Gateway 195 Centre
5 Commerce Way, Suite 200
Hamilton, NJ 08691
www.MidAtlanticEng.com

CTR DOCK @ KINDER
MORGAN -
REHABILITATION

CARTERET, NJ

MidAtlantic Engineering Partners

The Project

Year of Completion: On-Going
Client: Kinder Morgan Liquid Terminals
Engineering Cost: \$52,450
Construction Cost: \$225,000

Services

Underwater Inspection and Evaluation
Structural Assessments
Integrity Evaluation
Design Service
Rehabilitation Design
Permitting
Construction Support Services

Client

Kinder Morgan Liquid Terminals
Bogdan Zagorski
(732) 366-9418
78 Lafayette St
Carteret NJ, 07008

Role Prime



MidAtlantic was contracted directly with Kinder Morgan to perform a routine level above and underwater inspection of the CTR Dock at Kinder Morgan. The Project involved Level I and Level II/III inspection efforts on steel cellular mooring structures, steel pile pipe racks and stone gabion basket shoreline.

Following completion of the field investigation, MidAtlantic generated a routine report for the facility which document the results of the field investigation. Immediate repairs were required to select elements at the terminal.

MidAtlantic developed Issue for Construction repair drawings for the structures in critical condition. Namely the wave screen, floating dock and mooring structures required immediate repairs. Work was phased for budgetary and environmental constraints.



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CANTON COURT

NEW YORK, NY

STREET END SEAWALL

MidAtlantic Engineering Partners

The Project

Year of Completion: 2015
Client: New York Economic Development
Corporation
Engineering Cost: \$12,500

Services

Engineering Investigations
Repair Recommendations
Cost Estimates



Stuart was the Project Manager responsible to self perform the investigation, perform the stabilization calculations and generate repair recommendations with associated cost estimates for the street end.

New York City has approximately 400 street ends that terminate with a seawall and or bulkhead. The City of New York is responsible for the stability and condition assessment of the street ends.

Canton Court Street end is an unsupported gravity wall. The entire end of the street is rotating offshore and slowly sliding into the waterway.

Repairs will require community input as homes are directly adjacent.



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KEARNY POINT
SOUTH BASIN
SHORELINE REHABILITATION

KEARNY, NJ

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.

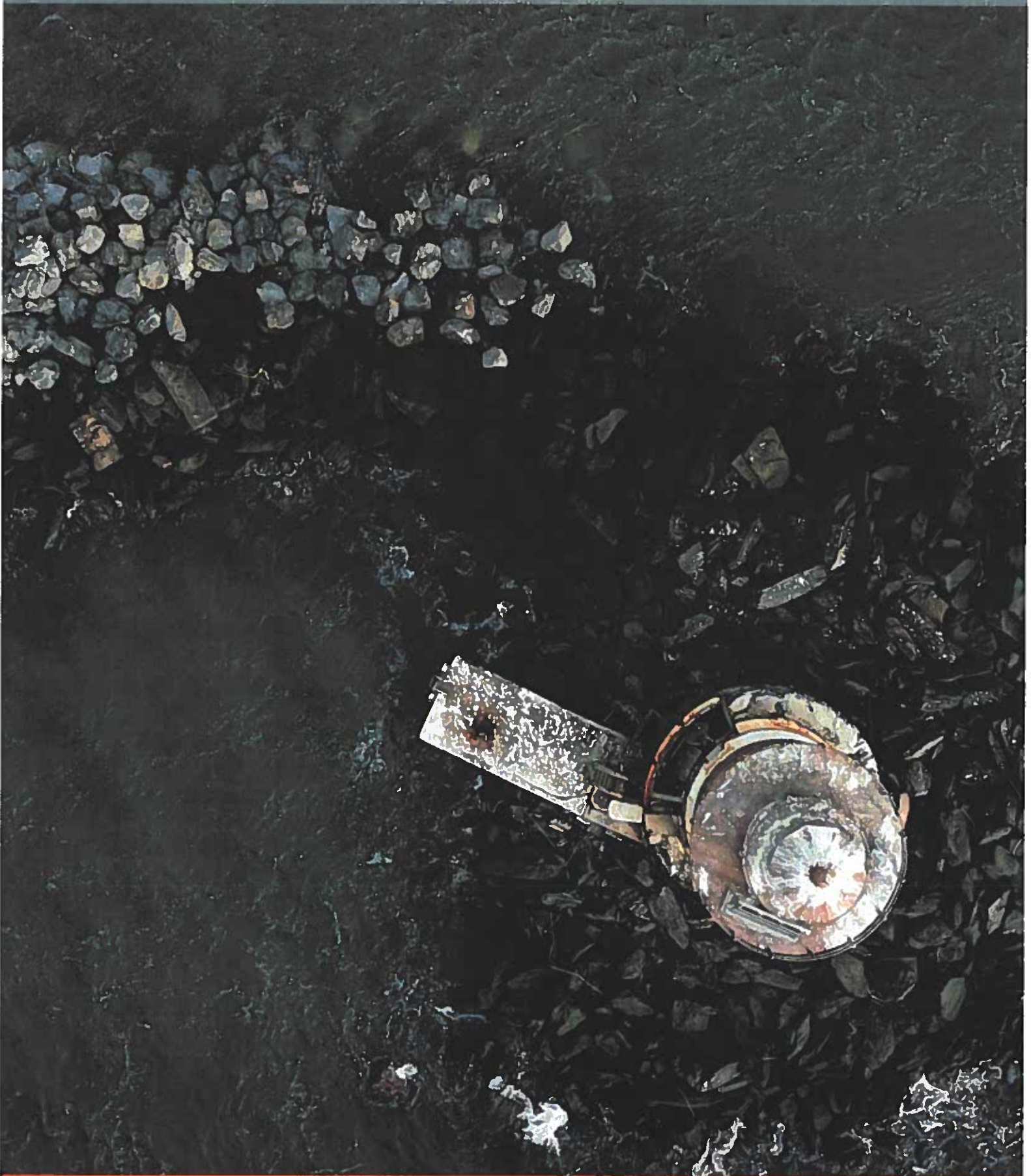
MidAtlantic worked with Hugo Neu to create a site plan that suited their project budget. MidAtlantic also prepared and submitted a CAFRA Individual Permit to the New Jersey Department of Environmental Protection. This included a Land Use Regulation Permit (LURP) and Waterfront Development Permit.



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www.MidAtlanticEng.com

PROJECT TEAM



MidAtlantic

Engineering Partners



W. STUART LEWIS

KEY QUALIFICATIONS

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

Stuart is a senior project manager / diver with 20 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, 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. Stuart has experience with all aspects of underwater investigations. 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. He has been a team leader managing emergency response teams to perform rapid level post event condition assessments. Stuart is highly proficient in, preparing inspection reports, cost estimates, developing repair recommendations and generating contract drawings.

PROJECT EXPERIENCE UNDERWATER INVESTIGATION

NYCDOT HBCBORERS-ER FDR Marine Borers RE Services: New York, NY

Office engineer/Diver documenting and reviewing all correspondence, payment applications, submittals, RFI, change orders and extension of time, submitted by the contractor. Performed underwater investigations of on- going construction activities as QA/QC for the Resident Engineer.

NYCEDC Manhattan Cruise Terminal: Manhattan, NY

Project Manager responsible for phase I, II and III of underwater routine inspections and design level inspections for rehabilitation of timber support piles and building pile clusters. Responsible for contract documents, construction specs and construction services.

MidAtlantic

Engineering Partners

W. STUART LEWIS

Professional Engineer
Diver

PROJECT EXPERIENCE WATERFRONT ENGINEERING

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 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

Project Manager 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

Project Manager 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

Project Manager 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

Project Manager 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

Project Manager 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.

PSEG BHS Oil Dock Walkway Engineering: Bridgeport, CT

Determined the load capacity for an existing timber oil dock walkway at the PSEG Bridgeport Harbor Station, in Bridgeport, CT. Site investigations verified current conditions of the timber walkway.

MidAtlantic

Engineering Partners

W. STUART LEWIS

Professional Engineer
Diver

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

ADCI Air Diver and DCBC Restricted Surface

Supply Diver

NHI Underwater Bridge Inspector

ACI Grade I Concrete Testing Technician

Associate ACI Grade II Concrete Construction

Special Inspector

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 over 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 New York 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 - UNDERWATER INVESTIGATION

NYCDOT HCBORERS-R FDR & Harlem River RE Underwater Inspection: New York, NY

Performed resident engineering underwater inspection for the NYCDOT FDR Marine Borer contract. Work included construction QA/QC dive inspection behind the contractor to document pay length, quality of repairs and verify work was being installed in accordance with the contract documents. Daily field reports and pay quantities were updated and maintained following each inspection.

NYCEDC—Manhattan Cruise Terminal Phase III: New York, NY

Performed inspection of the underwater portions of Piers 88 and 90 along the east bank of the Hudson River. The design level inspection was performed on virgin timber piles as well as previously repaired timber piles. Responsibilities included updating site drawings, specifications and quantities from the Phase II construction effort. This involved drafting new drawings and completing repair quantity adjustments to stay under budget while maximizing structural repair effectiveness. Project Engineer duties during the bid and construction phases of the project included permitting, RFI completion, submittals, and design edits., underwater inspection, and calculation and detail formulation.

MidAtlantic

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JESSE A. HERRON
P.E.

Professional Engineer/
Diver

PROJECT EXPERIENCE UNDERWATER INVESTIGATION (CONTINUED)

NYCEDC Routine Inspection - Pier 1: Staten Island, NY

Led above and underwater inspections of 5 different engineering 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.

PROJECT EXPERIENCE WATERFRONT ENGINEERING

Kinder Morgan Bulkhead Replacement: Staten Island, NY

Engineer responsible for generating plans and specifications for bid opportunity. Produced and submitted DEP and ACOE 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.

PROJECT EXPERIENCE CONSTRUCTION MANAGEMENT

Toys R Us Substructure Rehabilitation: Brooklyn, NY

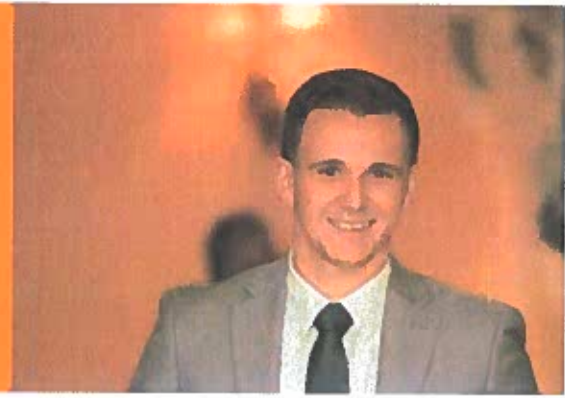
Performed Resident Engineer services to inspect installed contractor work for a high-level pile supported structure within the Verrazano Narrows waterfront. Repairs included chipping, shot blasting, placement of reinforcement, shotcrete application, and encasement of steel H-piles. Responsibilities included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

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.

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KEVIN R. KOEHLER II

Marine Engineer, E.I.T.

Education

Rensselaer Polytechnic Institute
B.S., Civil Engineering

Contact Information:

1971 Highway 34, Suite 201
Wall Township, NJ 07719
o. 609.281.8184
c. 732.832.9033
kkoehler@midatlanticeng.com

KEY QUALIFICATIONS

Kevin brings a comprehensive set of skills and expertise to the MidAtlantic team. With a proven track record of successfully delivering projects, he possesses strong technical proficiency in structural analysis, project management, and innovative problem-solving skills. His ability to effectively collaborate with clients, project managers, and engineers allows him to seamlessly coordinate and meet project requirements. Proficient in a range of design software, including AutoCAD, Revit, Advance Steel, and SAP2000, he consistently delivers high-quality results within budget and on time. With a talent for communicating technical concepts to non-technical stakeholders, he ensures that all project participants remain informed and engaged throughout the project's lifecycle. Kevin remains dedicated to staying up-to-date with the latest advancements in marine engineering, so that the best possible solutions are provided to MidAtlantic's clients. Overall, his unique blend of technical expertise, project management skills, and commitment to excellence make him a valuable asset to the MidAtlantic Marine Engineering team.

REPRESENTATIVE PAST PROJECT EXPERIENCE

Staten Island Offshore Wind Marshalling Port

MidAtlantic created a feasibility report for an offshore wind marshalling port that was a complex and challenging project. The project involved taking an old oil terminal and converting it into a modern and efficient wind marshalling port, and required Kevin to work on various aspects of the project, from site layout design to marine structural engineering design and cost analysis. MidAtlantic conducted a thorough site analysis, assessing the existing infrastructure and identifying areas that needed improvement or modification. This involved working closely with the client and other stakeholders to understand their needs and requirements, and to ensure that the proposed design met their expectations. Kevin helped develop a site layout design that included all the necessary facilities for a modern wind marshalling port, including a berthing area, cargo storage, office space, and other essential amenities. This Engineer also worked on the marine structural engineering design, ensuring that the port's infrastructure was robust enough to withstand the harsh marine environment and the demands of the wind energy industry. MidAtlantic identified the port's strengths, weaknesses, opportunities, and threats, while the cost analysis provided a comprehensive breakdown of the project's costs, including construction, equipment, and ongoing maintenance.

Kinder Morgan Hose Tower Strengthening

This project was a critical one for the client, who needed to ensure the safe and efficient offloading of products from ships to shore. As the structural engineer overseeing the project, Kevin played a vital role in its success. He conducted a thorough analysis of the existing structure, identifying areas that needed strengthening to ensure the safe operation of the tower.

REPRESENTATIVE PAST PROJECT EXPERIENCE (CONT.)

Based on this analysis, a comprehensive strengthening design plan was created that addressed all areas of concern. This involved the use of advanced structural analysis software, such as SAP2000, to ensure the accuracy and efficiency of the design. Kevin then oversaw the construction process, working closely with the contractors to ensure that the design was implemented correctly. This involved regular site visits and inspections, as well as communication with the client to keep them informed of the project's progress. The successful completion of this project not only ensured the safe and efficient offloading of liquid products, but it also helped to enhance the client's reputation as a reliable and trusted provider of marine services.

Bayonne Waterfront Rehabilitation

The development of bulkhead stabilization plans for a commercial warehouse development was another critical project that Kevin worked on. The project involved the stabilization of the waterfront structures to ensure the safety and integrity of the property. This required Kevin to work on various aspects of the project, from site analysis to collaborating with the external firm overseeing the overall site design process. Based on this analysis of the current conditions, MidAtlantic developed plans for the stabilization of the bulkheads and wharf structures, which included the installation of new steel sheet pile bulkheads and the concrete associated with the bulkhead. Kevin worked closely with all of the project stakeholders, collaborating with them to ensure that the proposed design was consistent with the overall project vision and met the necessary regulatory requirements. He played a critical role in obtaining the necessary permits for the project by working with the regulatory agencies to ensure that the proposed design met all applicable local, state, and federal regulations and guidelines. This involved preparing and submitting necessary permit applications, including applications for construction, water quality, and environmental permits.

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ANTHONY TEDESCHI

Engineer - Dive Supervisor

KEY QUALIFICATIONS

Anthony has 16 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.

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.

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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.