Torres Rojas, Genara FOI#14106

From: safa@ocean-coastal.com
Sent: Monday, July 01, 2013 3:43 PM
To: Duffy, Daniel
Cc: Torres Rojas, Genara; Van Duyne, Sheree
Subject: Freedom of Information Online Request Form

Information:

First Name: Stephen
Last Name: Famularo
Company: Ocean and Coastal Consultants Engineering, P.C.
Mailing Address 1: 35 Corporate Drive
Mailing Address 2: Suite 1200
City: Trumbull
State: CT
Zip Code: 06611
Email Address: safa@ocean-coastal.com
Phone: 203-400-6560
Required copies of the records: Yes

List of specific record(s):
The below requested items are all with regards to PANYNJ RFP Number 30225 titled: Expert Professional Marine Condition Surveys of Piers and Waterfront Facilities as Requested on a "Call-In" Basis During 2013. This RFP was issued in August of 2012. Requested items: 1. Any and all submissions andor proposals. 2. Any and all correspondence or memoranda. 3. Any and all recommendation letters received in connection with all individuals and entities who submitted proposals. 4. Any internal reviews of any individuals, contractors, or entities conducted in connection with the RFP. 5 Any and all documents related to agency reviews, including but not limited to any scoring system used in reviewing proposals, results from respondent scores, and final selection rankings. Please note that above requests encompass all electronic communications, in addition to all written communications.

THE PORT AUTHORITY OF NY & NJ

FOI Administrator

August 12, 2013

Mr. Stephen Famularo
Ocean and Coastal Consultants Engineering, P. C.
35 Corporate Drive, Suite 1200
Trumbull, CT 06611

Re: Freedom of Information Reference No. 14106

Dear Mr. Famularo:

This is a response to your July 1, 2013 request, which has been processed under the Port Authority's Freedom of Information Code (the "Code") for copies of records related to RFP Number 30225 including, submissions and/or proposals, correspondence or memoranda, recommendation letters received in connection with all individuals and entities who submitted proposals, internal reviews of any individuals, contractors, or entities conducted in connection with the RFP, agency reviews, including but not limited to any scoring system used in reviewing proposals, results from respondent scores, and final selection rankings.

Material responsive to your request and available under the Code can be found on the Port Authority's website at http://www.panynj.gov/corporate-information/foi/14106-C-1.pdf and http://www.panynj.gov/corporate-information/foi/14106-C-2.pdf Paper copies of the available records are available upon request.

Certain material responsive to your request is exempt from disclosure pursuant to exemptions (1), (2.b.), (4) and (5) of the Code.

Please refer to the above FOI reference number in any future correspondence relating to your request.

Very truly yours,

Daniel D. Duffy
FOI Administrator

225 Park Avenue South, 17th Floor
New York, NY 10003
T: 212 435 3642
F: 212 435 7555

The Port Authority of New York and New Jersey

"CALL-IN" CONSULTANT PROPOSAL EVALUATION

RFP #: 30225

426 - Marine Condition Surveys of Piers & Waterfront Facilities (2013)

PM: Robert Gill

RANK	FIRM	MULTIPLIER Consultant Office	TECHNICAL EVALUATION Staff Quals	Firm Quals	SCORE	AGREEMENT EXCEPTIONS (X)	NOTES
1-A	Boswell Engineering, Inc	2.74			93		
2-A	CH2M HILL New York, Inc.	2.86			90		
3-B	Ocean and Coastal Consultants Engineering, P C.	2.86			84		
4-B	M.G. McLaren P C d/b/a McLaren Engineering Group	2.67			83		
5-C	Moffatt & Nichol	2.79			70		
6-C	W.J Castle, P E. & Associates, P C.	2.2			60		
7-C	A. DiCesare Associates, P.C	2.45			60		

TECHNICAL RATINGS: EXCELLENT = 10 GOOD = 9 - 8 FAIR = 7 - 6 UNSATISFACTORY = 5 - 0

(X)-Any exceptions to the agreement must be resolved prior to agreement award.

Robert Gill — DATE 11-26-12

Richard Carlson — DATE 11/27/12

Dennis Cavaliere — DATE 11/27/12

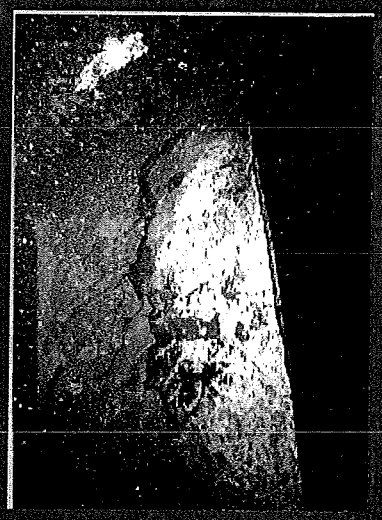
DIVISION MANAGER — DATE 11-28-12

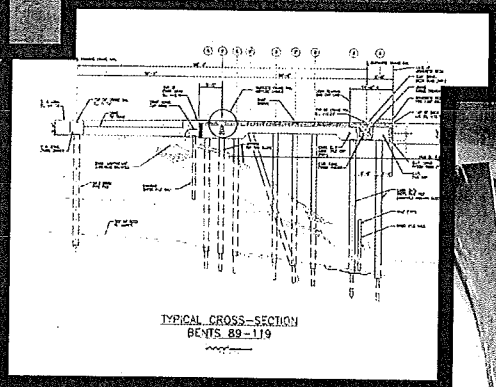
ASST DIRECTOR, PTASD — DATE 11/28/12

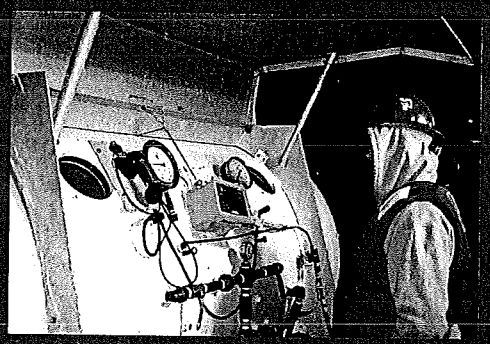
CHIEF ENGINEER — DATE 12/3/12

THE PORT AUTHORITY OF NY & NJ

RFP #30225







BROOKLYN PIER 9A
ALLOWABLE LIVE LOAD CALCULATIONS

Page 8 of 11

BENT	ROW	SECTION LOSS %	SECTION REMAINING %	CROSS SECTION (sq. in.)	P ALLOWABLE (lb.)	ALLOWABLE LIVE LOAD (psf)
8	B+3	0.70	0.30	33.91	40694.4	242.38
	C-SW	0.60	0.40	45.22	54259.2	400.11
	C+2	0.60	0.40	45.22	54259.2	400.11
	C+4	0.60	0.40	45.22	54259.2	400.11
	E+5	0.50	0.50	56.52	67824	557.84
	D-NW	0.65	0.35	39.56	47476.8	321.24
	D-SE	0.65	0.35	39.56	47476.8	321.24
	D-SW	0.80	0.20	22.61	27129.6	84.65
	D+1	0.75	0.25	28.26	33912	183.51
8+1	A-3	0.50	0.50	56.52	67824	557.84
	A	0.55	0.45	50.87	61041.6	478.97
	A+6	0.55	0.45	50.87	61041.6	478.97
	A+9	0.60	0.40	45.22	54259.2	400.11
	B+9	0.65	0.35	39.56	47476.8	321.24
	C	0.60	0.40	45.22	54259.2	400.11
	D+3	0.65	0.35	39.56	47476.8	321.2
	G+6	0.65	0.35	39.56	47476.8	321.2

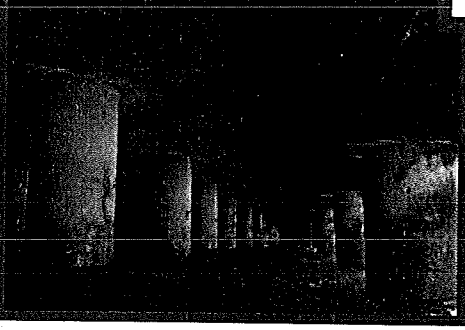


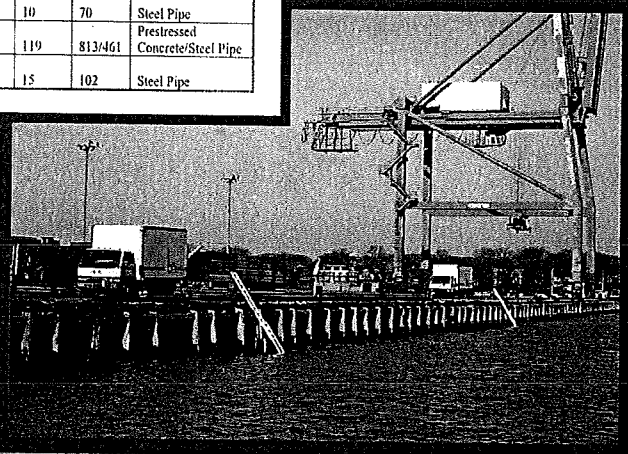
TABLE 4: SUMMARY OF OBSERVED CONDITIONS

ELEMENT	TOTAL NO.	NO. INSPECTED	CONDITIONS					
			Routine				Priority	
			Moderate		Severe		Severe	
			No.	%	No.	%	No.	%
Concrete Piles	813	812	38	5	0	0	19	2
Steel Pipe Piles	633	633	21	4	0	0	0	0
Pile Caps	144	144	16	13	3	2	0	0
Crane Support Girder	247 (5500*)	247 (5500*)	36 (792*)	15	2 (44*)	1	0	0
Steel Sheet Pile Bulkhead	3,069*	3,069*	1	<1	0	0	0	0
Underdeck	201,000**	201,000**	9 (135**)	<1	0	0	7 (200**)	<1
Jackets	475	475	39	9	1	<1	0	0

* Units are in linear feet
** Units are in square feet

TABLE 3: WHARF CHARACTERISTICS

Section	Length (Ft.)	Width (Ft.)	No. of Bents	No. of Piles	Type of Piles
South Extension	200	67	10	70	Steel Pipe
Old Wharf	2500	67	119	813/461	Prestressed Concrete/Steel Pipe
North Extension	300	67	15	102	Steel Pipe



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ATTACHMENT C

COMPANY PROFILE

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

1. Company Name (print or type):
   Boswell Engineering, Inc.

2. Business Address (to receive mail for this RFP):
   330 Phillips Avenue
   South Hackensack, NJ 07606

3. Business Telephone Number: (201) 641-0770

4. Business Fax Number: (201) 641-1831

5. Firm website: www.boswellengineering.com

6. Federal Employer Identification Number (EIN): (Ex. 1)

7. Date (MM/DD/YYYY) Firm was Established: 06 / 30 / 1969

8. Name, Address and EIN of Affiliates or Subsidiaries (use a separate sheet if necessary):
   Howard L. Boswell Engineer and Land Surveyor, PC, 330 Phillips Avenue,
   South Hackensack, NJ 07606, EIN: 11-2239018

9. Officer or Principal of Firm and Title:
   Stephen T. Boswell, Ph.D., P.E., SECB, President/ CEO

10. Name, telephone number, and email address of contact for questions:
    Michael J. Ganas, P.E., P.P, (201) 641-0770 Ext. 241,
    underwater@boswellengineering.com

11. Is your firm certified by the Authority as a Minority-owned, Woman-owned or Small Business Enterprise (M/W/SBE)? ☐ Yes ☒ No

    If yes, please attach **Port Authority** certification as a part of this profile.

    If your firm is an M/WBE not currently certified by the Authority, see the Authority's web site – http://www.panynj.gov/business-opportunities/supplier-diversity.html, to receive information and apply for certification.

ATTACHMENT B

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority Freedom of Information Code and Procedure adopted by the Port Authority's Board of Commissioners on March 29, 2012, which may be found on the Port Authority website at: http://www.panynj.gov/corporate-information/pdf/foi-code.pdf, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for the regulation or supervision of commercial enterprise which, if disclosed, would cause injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, as more fully set forth in the FOI Code, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

Boswell Engineering, Inc.
(Company)

Stephen T. Boswell
(Signature) Stephen T. Boswell

President / CEO
(Title)

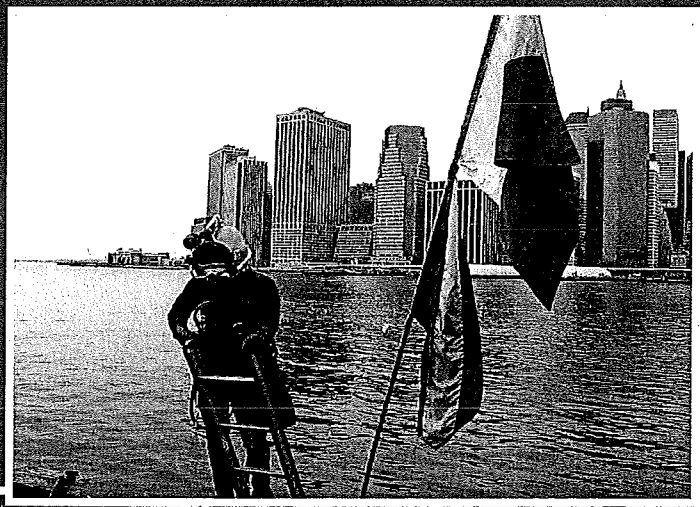
September 14, 2012
(Date)

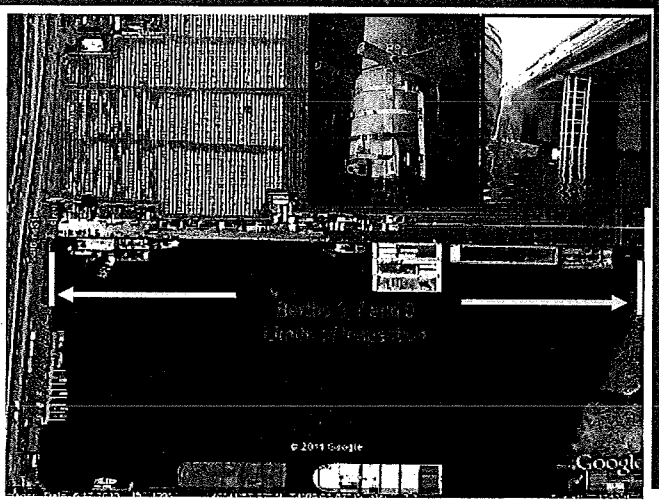
ORIGINAL AND PHOTOCOPIES OF THIS PAGE ONLY. DO NOT RETYPE.

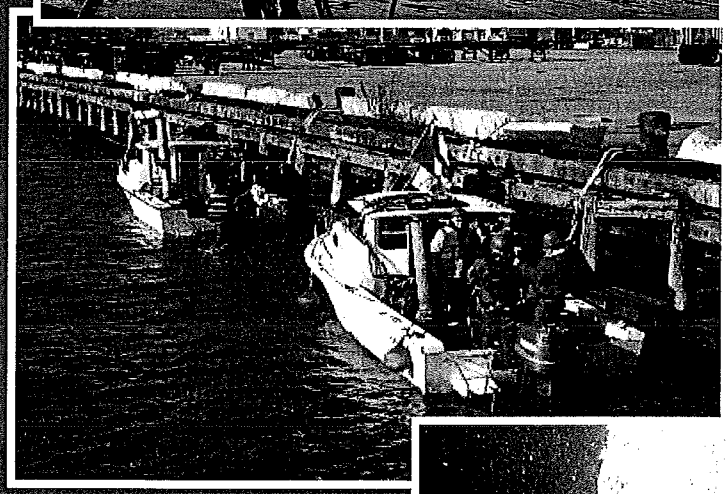
THE PORT AUTHORITY OF NY&NJ

RFP NUMBER 30225

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS & WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013







Boswell Engineering Inc.

EST. 1924

September 14, 2012

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- BUE Schedule of Lateral Penetration Dive Rates

BOSWELL ENGINEERING

ENGINEERS ■ SURVEYORS ■ PLANNERS ■ SCIENTISTS

EST. 1924

330 Phillips Avenue • P.O. Box 3152 • South Hackensack, N.J. 07606-1722 • (201) 641-0770 • Fax (201) 641-1831

VIA FEDERAL EXPRESS

September 13, 2012

The Port Authority of NY & NJ
Procurement Department
2 Montgomery Street, 3rd Floor
Jersey City, NJ 07302

Attention: RFP Custodian

Re: Performance of Expert Professional
Marine Condition Surveys of Piers & Waterfront Facilities
As Requested On A "Call-In" Basis During 2013
RFP Number 30225
Our File No. PR-12-4690

Boswell Engineering, Inc. (BE) is pleased to submit one (1) reproducible original and three (3) copies of our proposal, along with four (4) compact disk copies, to provide underwater inspection and technical services on the above-referenced contract as requested by your RFP dated August 24, 2012.

As a recognized leader in the field of marine infrastructure inspection, Boswell is one of the few engineering consulting firms nationwide that has total in-house hard hat diving capabilities on a commercial scale. Our staff of divers includes professional engineers trained in commercial hard hat diving techniques utilizing diver-to-surface communications.

Our Marine Engineering Division is specifically committed to investigating and evaluating the structural integrity of waterfront facilities including buildings, bridges and submerged marine structures such as piers, wharves, bulkheads, and relieving platforms. This translates into highly technical reports and designs that are thorough, accurate and consistent with structural engineering practices and terminology.

We are highly interested in performing this work for The Port Authority of New York and New Jersey and will bring the same level of professionalism, attention to detail, and quality reporting to this contract that has already gained us a strong national reputation. Boswell Engineering is currently ranked 221st among the Top ENR 500 Design Firms and 11th among the Top ENR 100 Construction Management Firms and possesses the largest full-time staff of engineer divers and array of commercial diver support gear among these noteworthy groups.

BE has more than enough qualified personnel and equipment in-house to conduct the work expediently and efficiently. BE has performed underwater inspections/structural assessments for

SECTION I

LETTER OF TRANSMITTAL

more than 35 public agencies, including the PANY&NJ, the U.S. Naval Facilities Engineering Command, the U.S. Coast Guard, the New York Power Authority, and the New York State Department of Transportation.

With regard to responsiveness, we have currently the means to field a minimum of four (4) three-man inspection dive teams fully equipped with commercial hard hat diver support equipment on any given day with less than 24 hours notification.

Our relevant experience has been demonstrated with over 930 diving related projects involving the inspection of bridges spanning waterways, including low clearance bridges and culverts, marine terminals, piers, wharves, relieving platforms, bulkheads, dams, submerged pipelines, intake and discharge structures, water storage tanks, underground reservoirs, hydroelectric dams, and other marine facilities.

Our proposed Project Manager & Quality Control Engineer, Michael J. Ganas, P.E., P.P., has managed over 930 projects involving the underwater investigation of bridge and marine structures over a span of 33 years and is currently a member of the Transportation Research Board (TRB) Subcommittee A3C06(1) on Inspection and Maintenance of Underwater Structures. He will be available to work on this contract as required until completion. Mr. Ganas has attained national recognition in this field, having authored numerous magazine articles on underwater inspection. In addition, he has authored a feature article entitled, *"Underwater Inspection of Waterfront Facilities and Bridges: Typical Considerations and Widespread Abuses"*, which was published in the March 2003 edition of the Water Operation and Maintenance Bulletin (No. 203) issued by the U.S. Department of the Interior's Bureau of Reclamation. According to the Bureau of Reclamation, this bulletin was distributed to all relevant government agencies. To date, Mr. Ganas had headed every PANY&NJ waterfront facility project/investigation (339 in total) assigned to Boswell under the sixteen (16) agreements awarded to the firm since 1989.

The Primary Team Leader/On-Site P.E. Diver proposed for this project will be Ljupcho Naumchevski, P.E., who will be responsible for the technical quality of field inspections and deliverables required in the contract. He has previously served as Team Leader on more than 140 projects involving underwater investigations and structural assessments of waterfront facilities, many of them for the PANY&NJ, and has prepared over 1200 condition survey reports.

Mr. Jeremy Pope, P.E., is another highly experienced Team Leader/On-Site P.E. Diver, having participated in many of the assignments and projects issued to Boswell by the PANY&NJ. He will also be available to head many of the Authority's projects as they arise.

Please be advised that Mr. Ganas, Mr. Naumchevski, and Mr. Pope are currently registered as professional engineers in New York and New Jersey.

Mr. Dennis Cassidy will function as Chief Inspector Diver for this contract. Since 1992, he has served as Team Leader on over 330 underwater inspection/condition survey assignments for the PANY&NJ. **Mr. Cassidy has recently completed the American Welding Society's (AWS) Certification Course and is an AWS Certified Associate Welding Inspector (CAWI).**

Mr. John Valentin, P.E., will serve in the capacity of Chief Structural Engineer on this contract and has over 27 years experience in the management, design, and inspection of buildings, bridges, and pier projects. Mr. Valentin has participated in several PANY&NJ waterfront assignments in the past.

BE's exceptional diving staff and unmatched technical capabilities will enable you to successfully carry out the underwater inspection and maintenance program of your facilities in a timely fashion while allowing you access to highly reliable and accurate information concerning the condition of your structures, recommendations for repair, and should the PANY & NJ opt for it, alternatives involving conceptual repair design.

As you are already aware, BE has been fulfilling the contracts for Waterfront Condition Surveys Technical Services on a "Call-In" Basis for the PANY & NJ since 1989 and has developed an excellent reputation for providing reliable and top-quality services during this time. To date, we have worked effectively and expediently on approximately 339 project assignments for the Port Authority involving waterfront condition surveys and quality assurance diving inspections. While forty-three (43) of these assignments were performed for the Quality Assurance Division (QAD), the remainder of these projects were coordinated through the PA Materials Engineering Division (MED).

In the process we have established a harmonious rapport with such PA representatives as Rob Gill, Dennis Cavaliere, Frank DeLassio, "Kaz" Bognacki, Dan Webber, Pat Rose, Barry Feldman, Chung-Ching Lin, Jan Perez, Suren Batra, John Lin, Rene Barrios, and a host of other PA personnel. These individuals have been highly satisfied with the quality of our reports, repair designs, and the responsiveness of our service. This type of performance can only be achieved by a large and stable organization such as Boswell, which has the necessary financial resources to maintain a sizable staff of full-time engineer and inspector divers and a huge array of diver support equipment. BE dive crews never go into the field without secondary backup equipment in order to avoid production delays.

We should point out that Boswell has gained a tremendous amount of expertise with regard to marine borer attack associated with marine facilities. Virtually all members of BE's key diving staff have become experts at identifying and evaluating various types of marine borer intrusion in waterfront timber structures. Boswell has conducted several dozen marine borer investigations using both statistical random sampling and judgment sampling techniques to assess the full extent of biodeterioration caused by Limnoria and Teredo infestation of timber structures located in New York Harbor and the waterways contiguous with New Jersey and Long Island. Many of these structures are owned by the Port Authority of NY & NJ and were sampled primarily by coring methods. In addition, Boswell has been extensively involved in the PANY & NJ's Marine Borer Monitoring Program when it was in effect, providing the PA Materials Engineering Division with a substantial amount of core sampling data and other information related to marine borer biodeterioration rates in various types of treated and untreated wood structures.

Boswell has a strong interest in the PANY & NJ's facilities maintenance in general, and the monitoring of deterioration in their submerged components in particular. Our commitment to this contract is reflected in a proposed staff of our best engineer and inspector divers who have considerable inspection experience pertaining to a wide assortment of submerged structures and who will be assigned to this project until completion.

All BE diving personnel have been trained in accordance with ADCI and OSHA Diving Standards, Subpart T - Commercial Diving Operations, and have recently undergone the required physical examinations mandated by OSHA. In addition, all BE divers have been trained and are proficient in administering first aid and cardiopulmonary resuscitation (CPR). Additionally, BE has developed its own Safe Diving Operations Manual for its diving operations. A copy of this manual will be provided to you upon request.

Boswell is committed on all its projects and engineering assignments to use its best efforts in order to meet or exceed the established DBE, MBE and WBE goals. This is attained by providing meaningful and maximum participation opportunities to minority and women-owned consulting firms.

For this assignment, all work will be conducted from Boswell Engineering's Corporate Headquarters located in South Hackensack, New Jersey, where its affiliate Boswell Underwater Inspection, Inc. is also located. BE currently has two (2) 25-ft. dive vessels routinely berthed on the Hudson River in Jersey City for rapid deployment to various sites in New York Harbor.

Please be advised that BE will provide round-the-clock, 7 days per week coverage, including weekends and holidays, on this contract, both on a routine or emergency basis.

We have enjoyed serving the Port Authority of NY & NJ on past contracts, considering your organization to be our most valued client, and it is our hope that we can continue this mutually beneficial relationship. Based on this relationship, we do not take any exception to the PA's Standard Agreement, having performed work on sixteen (16) similar previous agreements for the PANY&NJ without having any exceptions.

We appreciate the opportunity to submit this proposal. Should you require any additional information, please do not hesitate to contact this office.

Very truly yours,

BOSWELL ENGINEERING, INC.

Michael J. Ganas, P.E., P.P.
BUE Managing Director

MJG/kc

BOSWELL ENGINEERING
EST. 1924

SECTION II

EXPERIENCE OF THE FIRM

EXPERIENCE OF THE FIRM

Since its founding in 1924, BOSWELL ENGINEERING has kept pace with the rapidly changing technological advancements in the industry in order to provide its clients with state-of-the-art engineering services. BOSWELL offers a unique package of services that have been developed to accommodate increased demand by state and federal agencies to have the condition of their waterfront facilities and bridges spanning waterways investigated, assessed, and rehabilitated. With over 250 employees manning four offices in the northeast, BOSWELL ENGINEERING is a progressive, diversified, full service consulting engineering firm, possessing design, commercial diving, and land surveying capabilities that extend into municipal, highway, sanitary, hydrological, bridge, marine, environmental, and mechanical disciplines.

Boswell Underwater Engineering (BUE), a marine division of BOSWELL ENGINEERING, has a highly qualified staff specifically committed to inspecting and evaluating the condition of submerged components of bridges and marine structures. BOSWELL ENGINEERING is currently ranked number 221 among ENR's Top 500 Design Firms and number 11 among ENR's Top 100 Construction Management Firms and possesses the largest staff of engineer divers, commercial inspector divers, and fathometer surveyors among these noteworthy groups. BOSWELL'S uniqueness centers on the fact that it is not dependent on subcontractors that provide commercial diving or hydrographic survey services for the purpose of inspecting waterfront and bridge structures. In this regard, the firm is one of the limited number of engineering consultants to have total in-house diving and fathometric surveying capabilities on a commercial scale. Underwater engineering and hard hat diving expertise have been consolidated under one roof in order that strict control of the work proliferates within its ranks. Such a combined package equates to better hands-on performance and an underlying cost savings to the client by eliminating specialty subcontractors. In addition, work is executed in a more timely fashion since coordination of separate contract entities is largely avoided.

WATERFRONT & BRIDGE DIVING INSPECTION, FATHOMETER SURVEYING, DESIGN & MARINE CONSTRUCTION SUPERVISION EXPERIENCE

Since its inception in 1987 through 2011, the unique Underwater Engineering Division of the Boswell Organization has completed over 930 marine related projects, many of which involved the assessment and rehabilitation of waterfront facilities, submerged structures, and marine and ferry terminals. One hundred forty-five (145) of these projects required diving inspection during new construction or repairs of existing marine facilities to assess conformance of contractor workmanship with bid documents and to verify pay quantities. **In addition, through the year 2011, the firm has performed bridge diving inspections on a total of 10,068 substructure units (SSU) encompassing 2,800 bridges spanning waterways, and fathometer surveys on an additional 882 bridges situated over water.** This type of performance can only be achieved by a large and stable organization such as BOSWELL which has the necessary financial resources to maintain a permanent and sizeable staff of full time engineer and inspector divers, including structural and CADD engineers, and a huge array of diver support equipment. BUE dive crews never go into the field without secondary backup equipment in order to avoid production delays. Additionally, BOSWELL'S Highway and Structural Divisions have designed more than 215 bridge and marine structures and have inspected the superstructures of more than 800 bridges. Supplementing this, our Construction Management Division has supervised the construction or retrofitting of more than 78 bridges, 29 over water.

SECTION III

PROJECT DESCRIPTIONS / CLIENT REFERENCES

The Port Authority of NY & NJ – Materials Engineering

Key Project Elements
Underwater Condition Surveys
Marine Construction Inspections
Marine Borer Intrusion Surveys

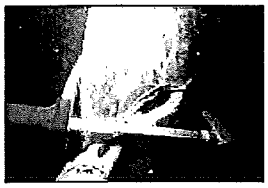
Owner
The Port Authority of NY & NJ
Materials Engineering Division (MED)
241 Erie Street, Room 234
Jersey City, NJ 07310-1397

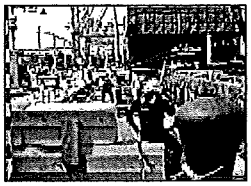
Contact
Rob Gill
Staff Services Engineer
201-216-2970 (phone)
201-216-2108 (fax)
rgill@panynj.gov

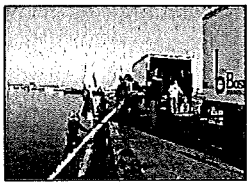
Total Fee
$9,443,600

Period of Work Performed
1989 - Present

Boswell Underwater Engineering has been fulfilling the contracts for **Waterfront Condition Surveys Technical Services on a "Call-In" Basis for the Materials Engineering Division of the Port Authority of NY & NJ** since 1989 on 11 successive term agreements (of $500,000 or more each) and has developed an excellent reputation for providing reliable and high-quality services during this time period. To date, Boswell has worked effectively and expediently on 291 projects for the PANY & NJ, many of them concurrent and often requiring the fielding of four (4) inspection dive teams during a single workday. More than 97 of these projects involved quality assurance diving inspections during marine construction to assess the contractor's compliance with contract documents. The majority of these projects involved condition surveys of numerous waterfront facilities such as piers, wharves, bulkheads, relieving platforms, and ferry terminals comprised of timber, steel, concrete and composite structural members. Twenty-nine (29) of these projects entailed both statistical random sampling and judgment sampling techniques to assess the full extent of biodeterioration caused by marine borer intrusion of timber structures. Core sampling techniques were used to assess the level of Teredo infestation (1989-Present). (All schedules and budgetary constraints were successfully adhered to.)







- Underwater investigations/condition surveys/audits
- Quality assurance marine construction inspection
- Verification of contractor payment quantities
- Contractor claims prevention
- Marine borer intrusion surveys
- Structural inventory and appraisal
- Concrete and timber core sampling
- Pre-and-post dredging hydrographic surveys
- Feasibility studies
- Alternative rehabilitation designs
- Cost estimating for facility repairs
- Pile wrap systems testing and evaluation
- New materials testing and evaluation
- Ultrasonic thickness gauging

		No. of Assignments				
Agreement No.	Years	CI	CS	MBS	Other	Total
426-89-14	1989		1			1
410-90-007M	1990-1991		4	3		7
410-92-003M	1992-1993	6	12	4		22
426-94-010	1994	4	4	2		10
426-95-001	1995	2	2	2		6
426-96-009	1996-1997	15	19	2	1	37
426-98-012	1998	6	8	3		17
426-99-003	1999-2002	27	49	4	1	81
426-03-015	2003-2005	18	46	4		68
426-06-006	2006-2008	4	2	3	4	13
426-09-012	2009-2012	16	4	2	7	29
	Totals	98	151	29	13	291

Note: CI = Construction Inspections CS = Condition Surveys MBS = Marine Borer Surveys

The Port Authority of NY & NJ – Quality Assurance Div.

Key Project Elements
Condition Surveys
Emergency Inspections
Repair Recommendations
Repair Designs
Construction Cost Estimates

Owner
The Port Authority of NY & NJ
Quality Assurance Division (QAD)
100 Mulberry Street
3 Gateway Center, 3rd Floor
Newark, NJ 07102

Contact
Chung-Ching Lin - Project Manager
973-792-3981 (phone)
973-792-3909 (fax)
clin@panynj.gov

Suren Batra – Project Manager
973-792-3959 (phone)

Jan Perez – Project Manager
973-792-3986 (phone)

Total Fee
$6,385,906

Period of Work Performed
2000-Present

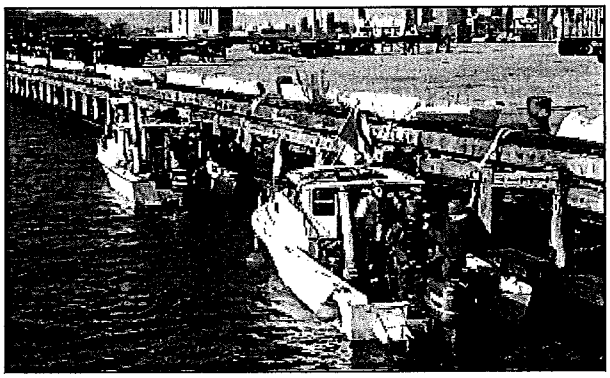
Boswell Underwater Engineering recently received its 5th consecutive 3-year contract for Expert Professional Services for Performance of Condition Surveys of Waterfront Facilities on a Call-In Basis for the Quality Assurance Division (QAD) of the Port Authority of NY & NJ since 2000 (Term Agreements 405-00-02, 2000-2002; 405-03-007, 2003-2005, 405-06-018, 2006-2008; 405-09-025, 2009-2011; 405-12-022, 2012-2015). Forty-eight (48) project assignments to-date involving condition surveys of piers, wharves, bulkheads, bridges, and buildings predominantly requiring underwater inspections to identify structural and non-structural deficiencies presenting safety hazards. Recommendations for correcting deficiencies and repair designs were also developed (2000-2012). Total Fee: $6,385,906. (All schedules and budgetary constraints were successfully adhered to.) These projects were as follows:

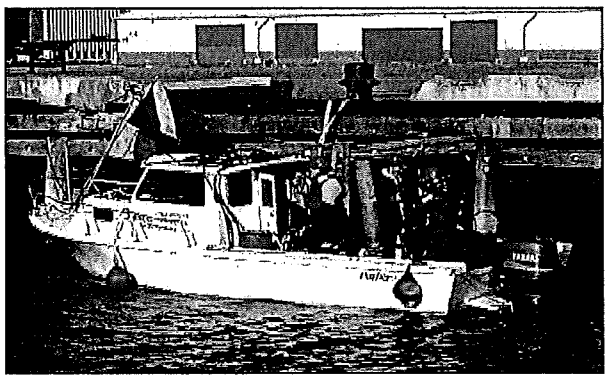
Agreement No.	Years	No. of Assignments	Fee
405-00-02	2000-2002	7	$ 502,217
405-03-007	2003-2005	12	$ 1,942,650
405-06-018	2006-2008	11	$ 1,456,967
405-09-025	2009-2011	14	$ 1,818,911
405-12-022	2012-2015	4	$ 665,161
TOTAL		48	$ 6,385,906

- Condition Survey Inspection of Battery Park Ferry Terminal (BUE-0007-01). Fee: $27,132
- Biennial Inspection of NJ Marine Terminal Bridges at Berths 3 and 50 (BUE-0007-02). Fee: $20,052
- Condition Survey Inspection of Downtown Manhattan Heliport (BUE-0007-03). Fee: $150,549
- Condition Survey Inspection of JFK International Airport ILS Pier off Runway 4R-22 (BUE-0007-04). Fee: $43,828
- Condition Survey Inspection of JFK International Airport ILS Pier off Runway 7-25, including Audit Inspection of Brooklyn Piers 6, 7, & 8 (BUE-0007-05). Fee: $71,684
- Pier 10 Bulkhead Inspection at Brooklyn Marine Terminal (BUE-0007-06). Fee: $24,045
- Condition Survey of Port Newark Berths 2 thru 26, 28, 30,32, 33, 34, and 36 (BUE-0007-07). Fee: $164,927
- Brooklyn Piers 6, 7, & 8 Pile Rehabilitation Inspection (BUE-0303-01). Fee: $367,439.
- Port Newark/Port Elizabeth Shipping Berths. Priority Pile Inspections of PN Berths 3, 5, 6 thru 15, 25, 34, & 36; PE Berths 50, 52, 54, 56, 58, 60, 62, 76, 78, 80, 82, 84 & 86 (BUE-0303-02). Fee: $419,084
- Condition Survey Inspection of Port Newark Even Numbered Berths (BUE-0303-03A). Fee: $225,683.
- Condition Survey Inspection of Port Newark Odd Numbered Berths (BUE-0303-0B). Fee: $224,048.
- Brooklyn Pier 9A Underwater Inspection (BUE-0303-04). Fee: $32,301
- Holland Tunnel Vent Building & Pier 34 (BUE-0303-05). Fee: $99,942
- Newark Liberty International Airport Bridge/Culvert Inspection (BUE-0303-06). Runway and Taxiway over Storm Drain Ditch. Fee: $51,618
- Port Elizabeth Berths 88 thru 98 and Turntable Condition Survey (BUE-0303-07). Fee: 187,144
- Brooklyn Piers 9A and 9B and Red Hook Wharf-A Bulkhead (BUE-0303-08). Fee: $188,693
- Condition Survey of Howland Hook Wharf (BUE-0303-09). Fee: $123,372

The Port Authority of NY & NJ – Quality Assurance Division (continued)

- Condition Survey of Port Ivory Concrete Culvert at Richmond Terrace and Western Avenue Bridge (BUE-0303-10). Fee: $12,835
- Port Newark Berth 4-6 and 10-12 (BUE-0303-11). Fee: $10,491
- Condition Survey Inspection of New Jersey Marine Terminal, Port Newark Berths 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23 and 25 (BUE-0603-01). Fee: $266,229
- Condition Survey of New Jersey Marine Terminal, Port Elizabeth Berths 51, 53, 55, 57, 59, 61 and 63 (BUE-0603-02). Fee: $227,883
- Condition Survey of Bulkheads at Brooklyn Piers 6, 7, 8 & 12 and Between 6&7, 7&8, 8&9A and Piles Spanning Subway Tunnel at Pier 2 (BUE-0603-03). Fee: $137,312
- Condition Survey Inspection of Piers at Bergen Basin at JFK International Airport (BUE-0603-04). Fee: $57,199
- Underwater Inspection of Overloaded, Collapsed Sections at Berths 36 and 63 in Port Elizabeth (BUE-0603-05). Fee: $27,063 (included in total fee for BUE-0603-05).
- Condition Survey of Port Elizabeth Marine Terminal Berths 50 Thru 86 (BUE-0603-06). Fee: $424,514
- Condition Survey Inspection of Berths 1 & 2, Concrete Mooring Dolphins and Timber Walkways at Auto Marine Terminal in Bayonne, New Jersey (BUE-0603-07). Fee: $66,024
- Underwater Diving Investigation of New Jersey Marine Terminal Berths 36 and 63 (BUE-0603-08). Fee: $26,389
- JFK – Condition Survey of ILS Piers 4-22 & 7-25 and Sewer Outfalls (BUE-0603-09). Fee: $242,126
- Condition Survey of Former Allied Chemical Pier at Port Elizabeth (BUE-0603-10). Fee: $6,649
- Underwater Diving Investigation of New Jersey Marine Terminals, Port Newark Berth 19 (BUE-0603-11). Fee $2,649
- Emergency Post-Collapse Inspection of Berth 3, Port Newark (BUE-0903-01). Fee: $17,366
- LGA Condition Survey of Runway Extensions and Bowery Bulkhead (BUE-0903-02). Fee: $274,491
- Port Newark Even Berths, 2, 4, 6, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34 & 36 Condition Survey (BUE-0903-04). Fee: $276,576
- Port Elizabeth Marine Terminal Berths 68-86 Condition Survey (BUE-0903-05). Fee: $253,321
- Greenville Yard Condition Survey (BUE-0903-06). Fee: $191,273
- JFK International Airport Five Bergen Basin Barge Piers Condition Survey (BUE-0903-07). Fee: $54,373
- LaGuardia ILS & ALS Runway Piers Condition Survey (BUE-0903-08). Fee: $100,882
- Condition Survey of Berths N1 & N2 at Port Jersey South (BUE-0903-10). Fee: $157,220
- JFK – Condition Survey of ILS Pier 4-22 (BUE-0903-11). Fee: $108,057
- Condition Survey of Brooklyn Piers 9A & 9B at New York Marine Terminal (BUE-0903-12). Fee: $225,633
- Immediate Inspection of Berths 11 & 82 at New Jersey Marine Terminal (BUE-0903-14). Fee: $19,860
- Post Hurricane Inspection of Various Marine Structures (BUE-0903-15). Fee: $8,716
- Condition Survey of Inspection of 65th Street Rail Yard Transfer Bridges (BUE-0903-16). Fee: $55,000
- LGA Condition Survey of Culverts (BUE-0903-17. Fee: $76,143
- Port Newark Odd Numbered Berths (BUE-1203-01). Fee: $295,473
- LaGuardia Runway Extensions (BUE-1203-02). Fee: $295,384
- Greenville Yard (BUE-1203-03). Fee: $46,016
- JFK Barge Basin Pier (BUE-1203-04). Fee: $28,288





Key Project Elements
Construction Inspection

Owner
The Port Authority of NY&NJ (MED)
Materials Engineering Division
24a Erie Street, Room 210
Jersey City, New Jersey 07310

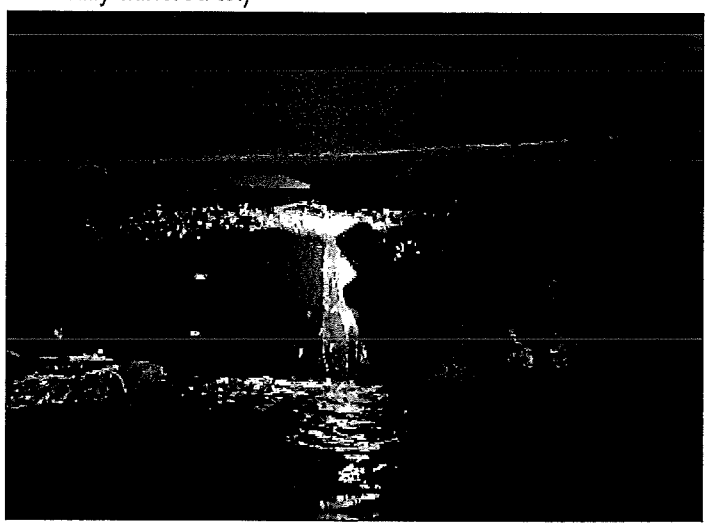
Contact
Robert Gill
Project Manager
201-216-2970 (phone)
201-216-2108 (fax)
rgill@panynj.gov

Total Fee
$35,200

Period of Work Performed
December 2011

Emergency Bulkhead Repair Inspection
New Jersey Marine Termination at Newark, Berths 23 and 25

Boswell Underwater Engineering (BUE) **provided engineering inspection services to the Resident Engineers office at the Port Authority of NY & NJ's New Jersey Marine Terminal.** The project consisted of Quality Control Diving Inspections of concrete encasements being installed on the deteriorated steel sheet piling bulkhead. The project was conducted from October through December of 2011 (Job No. BUE-0901-19). (All schedules and budgetary constraints were successfully adhered to.)



Contractor in the process of welding shear studs to the steel sheeting with Boswell's Certified Welding Inspector (CWI) monitoring the process.

Quality Control Inspections
LaGuardia Airport Cathodic Protection and Pile Wrap Rehabilitation Project

Key Project Elements
Construction Inspections

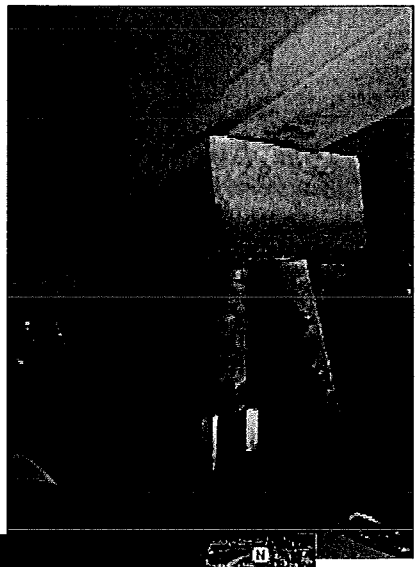
Owner
The Port Authority of NY&NJ (MED)
Materials Engineering Division
24a Erie Street, Room 210
Jersey City, New Jersey 07310

Contact
Robert Gill
Project Manager
201-216-2970 (phone)
201-216-2108 (fax)
rgill@panynj.gov

Total Fee
$20,000

Period of Work Performed
September 2011

Boswell Underwater Engineering (BUE) **provided engineering services to the Resident Engineers office at the Port Authority of NY & NJ's LaGuardia Airport.** The project consisted of Quality Control diving inspection on recent anode installations on steel pipe piles to verify conformance to design specifications. The work was conducted in September of 2011 (Job No. BUE-0901-17). (All schedules and budgetary constraints were successfully adhered to.)



Key Project Elements
Quality Control Construction Inspections

Owner
The Port Authority of NY&NJ (MED)
Materials Engineering Division
24a Erie Street, Room 210
Jersey City, New Jersey 07310

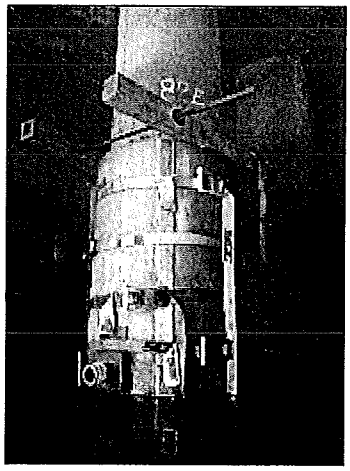
Contact
Robert Gill
Project Manager
201-216-2970 (phone)
201-216-2108 (fax)
rgill@panynj.gov

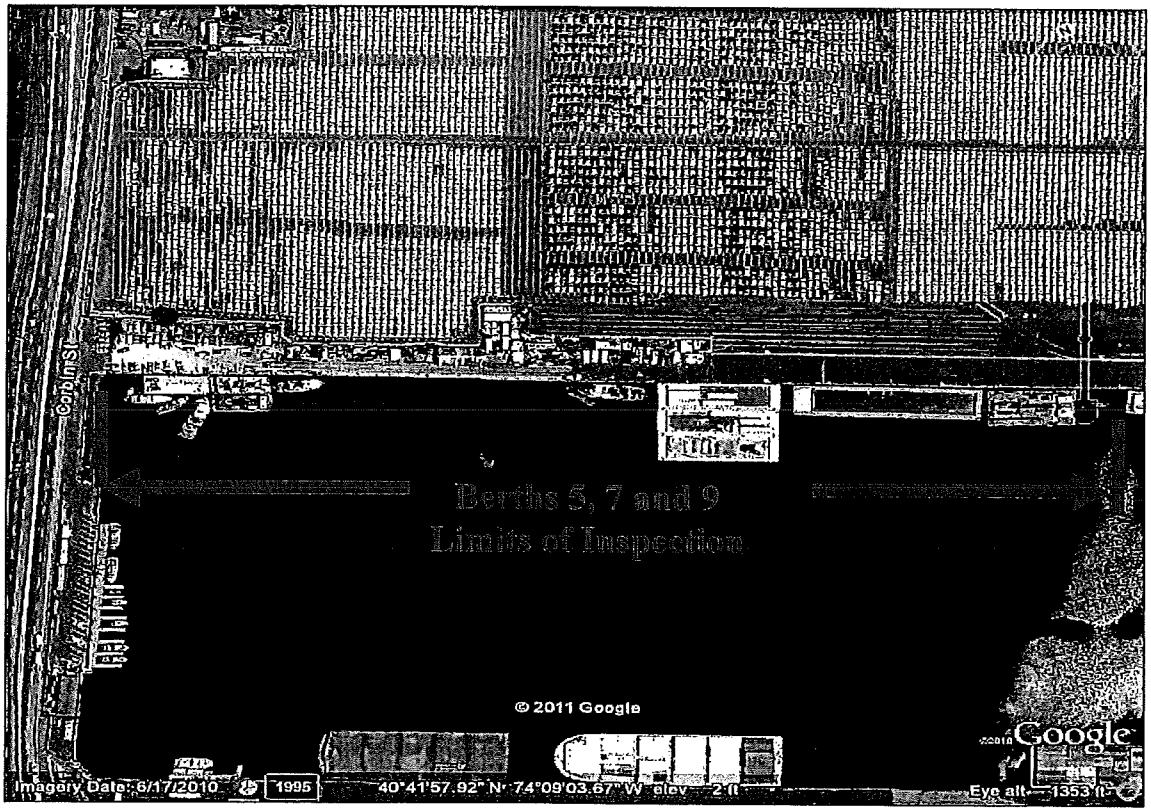
Total Fee
$45,000

Period of Work Performed
October 2011

Pile and Underdeck Repair Quality Control Inspections New Jersey Marine Terminal at Newark Berths 5, 7 and 9

Boswell Underwater Engineering (BUE) **performed Quality Control diving operations at Port Newark within Berths 5, 7 and 9 as part of the Port Newark New Jersey Marine Terminals "Priority Marine Rehabilitation" Project.** The repairs are based on the 2010 Condition Survey of piles damaged from vessel impact and deterioration. The repair work was conducted between May and October of 2011 (Job No. BUE-0901-15). (All schedules and budgetary constraints were successfully adhered to.)





EXEMPTION (4)

DRAWINGS OF NON-PUBLIC AREAS

Condition Survey Inspection of Piers 9A and 9B Brooklyn, New York

Key Project Elements
Condition Survey
Ultrasonic Thickness Measurements
Marine Borer Evaluation
Repair Recommendations

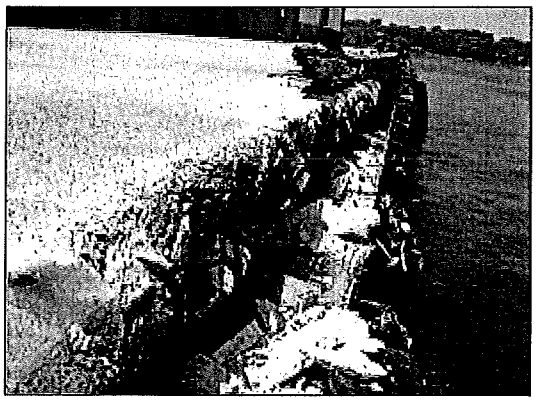
Owner
The Port Authority of NY&NJ (QAD)
Port Authority Technical Center
100 Mulberry Street
3 Gateway Center, 3rd Floor
Newark, New Jersey 07102

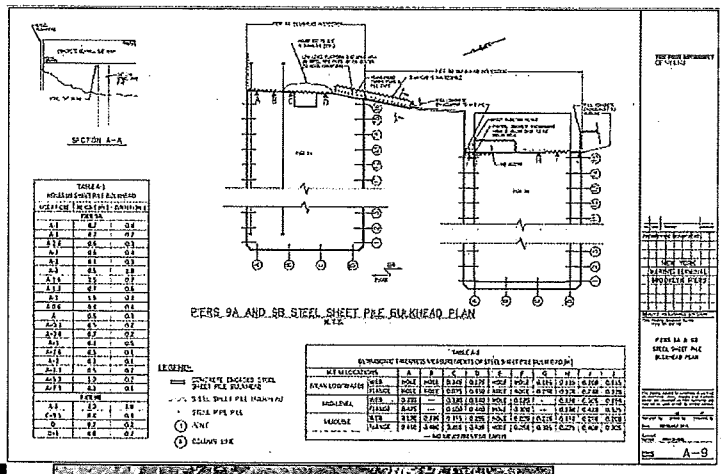
Contact
Chung-Ching Lin
Project Manager
973-722-3959 (phone)
973-792-3909 (fax)
clin@panynj.gov

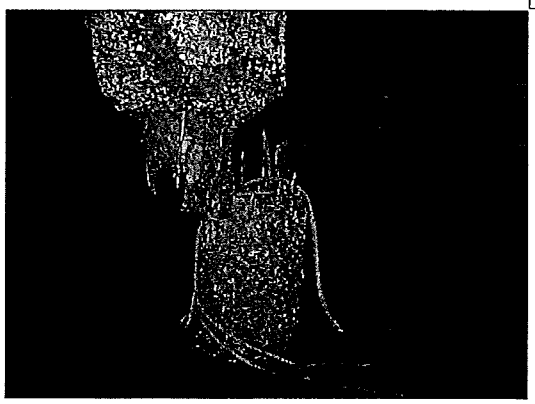
Total Fee
$225,633

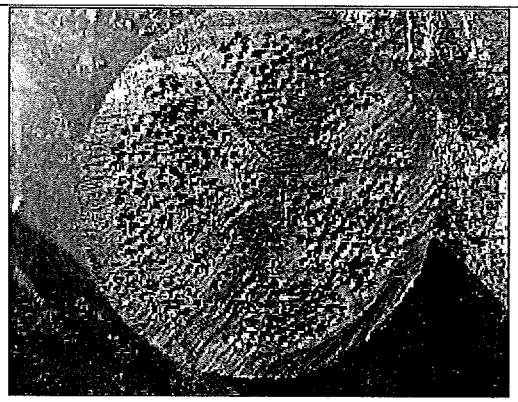
Period of Work Performed
Summer 2011

As part of a term agreement with the **PANY&NJ for Expert Professional Services for Performance of Condition Surveys of Waterfront Facilities on a Call-In Basis (Agreement No. 405-09-25, 2009-2011) to evaluate the condition of structures and to identify any structural and non-structural deficiencies for the Quality Assurance Division of the Port Authority of NY & NJ, Boswell Underwater Engineering (BUE) performed a Condition Survey of Piers 9A and 9B including Bulkheads in Brooklyn, New York**. The condition survey entailed the inspection of all structural elements of both piers including 5,176 timber piles with concrete pile extensions, 140 steel pipe piles and 1,175 linear feet of steel sheet pile bulkhead. A Level I visual inspection was performed on all structural elements and a Level II inspection was performed on 10 percent of all timber piles, steel pipe piles and steel sheet pile bulkhead. The Level II inspections for the steel piles and steel sheet pile bulkhead included ultrasonic thickness measurements of the steel to determine remaining cross-sectional area. Due to extensive marine borer damage of the timber piles, BUE was tasked with removing a timber pile to assess the extent of internal marine borer damage over the length of the pile. A total of 42 days in the field using a 3-man dive team were spent in carrying out the work which occurred during the summer of 2011 (Job No. BUE-0903-12). (All schedules and budgetary constraints were successfully adhered to.)









Condition Survey Inspection
J.F. Kennedy International Airport ILS Pier 4-22
New York

Key Project Elements
Condition Survey
Ultrasonic Thickness Measurements
Repair Recommendations

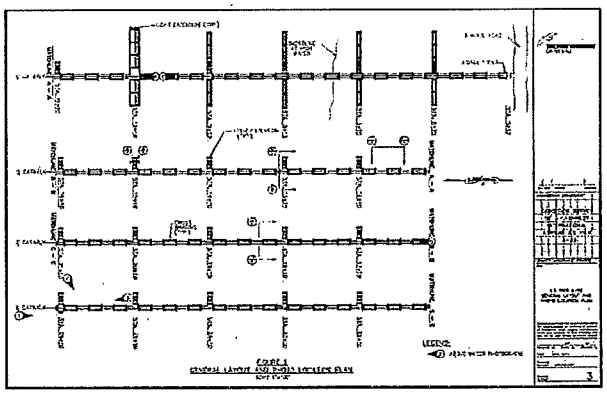
Owner
The Port Authority of NY&NJ (QAD)
Port Authority Technical Center
100 Mulberry Street
3 Gateway Center, 3rd Floor
Newark, New Jersey 07102

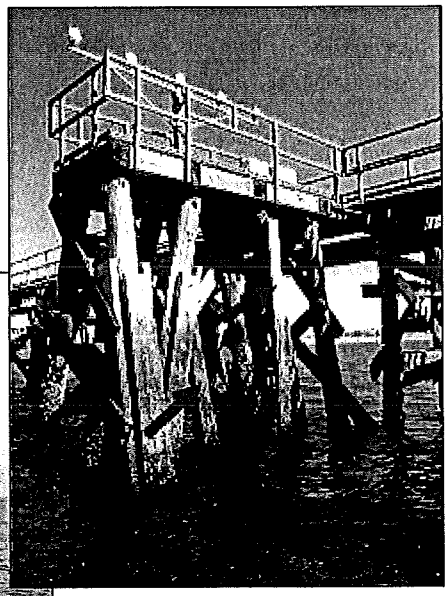
Contact
Steven Vecchione
Project Manager
973-792-3997 (phone)
svecchione@panynj.gov

Total Fee
$108,057

Period of Work Performed
Winter 2011

As the 2009 portion of a cyclical contract for **Expert Professional Services** to evaluate the overall condition of structures and to identify any structural and non-structural deficiencies for the **Quality Assurance Division of the Port Authority of NY & NJ,** BUE performed visual inspections on 100% of the structural elements and the topside deck. Also, a hands on inspection was performed on 10% of the foundation piles, with methods including but not limited to ultrasonic thickness measurements and probes throughout the **JFK Runway 4-22 ILS Pier.** The fender system was excluded from the scope of work. This inspection was performed in order to assess the condition of and recommend repairs in order to counteract the structural deterioration of Timber Piles, Bracing, Stringers and Associated Hardware, of which all findings were presented in a condition survey report. A total of 30 days in the field using a 3-man dive team were spent in carrying out the work over the course of the winter of 2011 (Job No. BUE-0903-11). (All schedules and budgetary constraints were successfully adhered to.)





Bridge Diving Inspections & Fathometer Surveys
New York State Department of Transportation

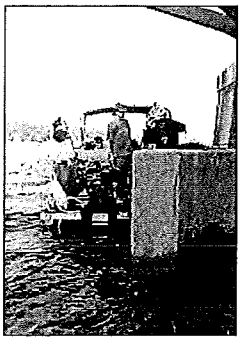
Key Project Elements
Bridge Diving Inspections
Scour Erosion Inspections
Fathometer Surveys

Owner
New York State Dept. of Transportation
Structures Design & Construction
Bridge Inspection Unit
50 Wolf Road, POD 43
Albany, NY 12232

Contact
Ikram Mohl, PE
Bridge Inspection Program Manager
518-457-8275 (phone)
518-457-6945 (fax)
Ikram.Mohl@dot.ny.gov

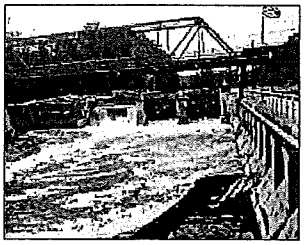
Total Fee
$17,100,500

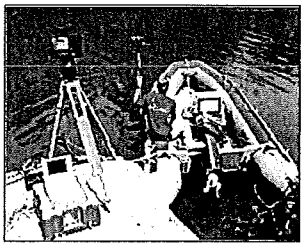
Period of Work Performed
1991 – Present



Bridge Diving Inspections & Fathometer Surveys. NBIS bridge diving and scour erosion inspections, including fathometric/scour evaluation assessments, of bridges spanning waterways.

Since 1991 through the end of 2012, the firm will have performed bridge diving inspections on a total of 6,844 substructure units (SSU) encompassing 1,713 bridges spanning waterways, and fathometer surveys on an additional 848 bridges situated over water for the New York State Department of Transportation. The work was performed in all eleven (11) regions of the state.





To date, BOSWELL has been awarded fifteen consecutive term agreements for this type of work (as a prime consultant) and is the only consulting engineering firm, acting in the capacity of prime consultant, to have ever been issued concurrent, overlapping bridge diving inspection contracts by the NYSDOT. This has happened four (4) times and first occurred in 1997 when the NYSDOT Western and Southern Agreements were executed concurrently by BUE, again from 1998 through 2000 when the NYSDOT Southern and Eastern Agreements overlapped, and again in 2003 and 2004 when the NYSDOT Western and Southern Agreements overlapped. From 1994 through 1997, the Western Agreement included 434 bridges in Regions 3, 4, 5, and 6, while the Southern Agreement included a total of 261 bridges from 1997 through 2000 in Regions 10 and 11 (which includes the New York City Metropolitan area and all of Long Island).

The NYSDOT Eastern Agreements for the two (2) bridge diving cycles that occurred from 1998 through 2001 contained a total of 348 bridges in Regions 1, 2, 7, 8 & 9. In 1997, the NYSDOT Regions 10 & 11 contract also included construction diving inspection during Phase I of the Robert Moses Causeway over Great South Bay Reconstruction Project, a massive hydraulic study, parallel seismic testing, and a sizeable BIN folder research project that required a time sequence plotting of waterway cross-sections (from all recorded bridge surveys) with respect to embedded pile tip elevations at each bridge structure. A listing of past and current NYSDOT Bridge Diving & Fathometer Survey Contracts are as follows:

Agreement Nos.	Regions	Years	Bridges	SSU	FS Surveys
D006001	10 & 11	1991-1992	54	260	41
D006129	1,2,7,8 & 9	1992-1993	217	494	49
D007403; SA1	3,4,5 & 6	1994-1997	316	646	118
D008928; SA2	10 & 11	1997-2000	122	1367	139
D010140; SA1	1,2,7,8 & 9	1998-1999	150	327	40
D010471	1,2,7,8 & 9	2000-2001	103	209	55
D015139	3,4,5 & 6	2002-2003	125	246	86
D015236	10 & 11	2003-2004	65	651	80
D015361	3,4,5 & 6	2004-2005	135	240	19
D015537	1,2,7,8 & 9	2006-2007	176	417	76
D030531	1,2,7,8 & 9	2008	118	291	24
D030586	10 & 11	2009-2010	56	1359	49
*D030917	10 & 11	2011	26	151	37

*Note: Agreement No. D030917 extends through 2012 and is projected to have 50 bridge diving inspections (186 SSU) and 34 fathometric surveys scheduled to be completed.

(All schedules and budgetary constraints were successfully adhered to.)

SECTION IV

ORGANIZATIONAL SIZE & STRUCTURE

ORGANIZATIONAL SIZE & STRUCTURE

Boswell Engineering, Inc. has 5 Senior Engineer Divers (with P.E. registration in various states), who act as team leaders and project managers on all field assignments involving underwater inspections, hydrographic surveys, scour evaluations, and topside waterfront facility condition surveys.

Currently assigned to projects involving underwater investigations on PANY & NJ projects are 3 P.E. Divers, 2 Engineer Divers and 6 Commercial Inspector Divers. Among these current 10 individuals, 8 are qualified and experienced hydrographic/fathometric surveyors. Backup resources in the form of 24 CAD Operators/Drafters, 7 Structural Engineers, and 26 Land Surveyors provide BUE with the capability of taking on projects of large magnitude and completing objectives, including emergency repair design and cost estimating, in a timely fashion.

Our large contingent of engineer divers, structural engineers, and backup engineering resources provides us with the means to expediently conduct several projects of scale concurrently in diverse geographical locations.

Our Underwater Engineering Division is uniquely staffed with individuals who are highly qualified and specifically committed and trained in inspecting and evaluating the structural condition of submerged components of both existing structures and marine substructures under construction or repair. In addition, this diving staff is one of the most stable in the industry, with all of its various members having been rotated through many of the same projects. BUE has also developed an extensive track record involving hydrographic/fathometric surveys of waterways.

BOSWELL's key diving staff consists of full-time bonafide employees. This allows the firm to avoid having to hire transient divers for call-out work, a common occurrence in the diving industry. Thus a higher standard of inspection can be achieved. In addition, BUE staff divers will be available to answer questions and to provide supplemental information long after the field work is completed. This also provides for better continuity and consistency of personnel during the execution of construction and post-construction phase services.

All of Boswell's proposed staff will be available for both diving and topside inspection and will be integrated into the field teams as needed, all of them periodically rotating back to the office for assessment of findings and report preparation. These individuals are:

P.E. Divers	**Engineer Divers**	**Commercial Inspector Divers**
Michael J. Ganas, P.E., P.P.	Joseph Gaylord, E.I.T.	Dennis Cassidy
Ljupcho Naumchevski, P.E.	Hoi Leung	Marco Giacchi
Jeremy Pope, P.E.		Paul Dombrowski
Bruce Boswell, P.E.		Tracy McMahon
Kevin Boswell, P.E.		Jamie Faraldi
		Gary Watson

Please be advised that Michael Ganas, Ljupcho Naumchevski, Jeremy Pope, Bruce Boswell and Kevin Boswell are currently registered as professional engineers in New York and New Jersey. Their respective P.E. numbers are as follows:

Professional Engineers	New York	New Jersey
Michael J. Ganas, P.E., P.P.	062754-1	32666
Ljupcho Naumchevski, P.E.	072891-1	48972
Jeremy Pope, P.E.	086952-1	44888
Bruce Boswell, P.E.	067219-1	36029
Kevin Boswell, P.E.	065208-1	32943

Ten (10) of the thirteen (13) BOSWELL key diving staff members have at least five (5) years experience with inspecting marine facilities and have been approved as qualified divers by both the New York State Department of Transportation, the U.S. Navy, the U.S. Coast Guard, the Port Authority of NY & NJ, and an assortment of other public agencies.

All BOSWELL key diving staff members are highly experienced with inspecting waterfront facilities and bridges spanning waterways, both typical and low clearance type structures. They are also experienced with identifying and assessing biodeterioration caused by marine borers, including limnoria, teredo and bankia, and have participated extensively in the Marine Borer Monitoring Program conducted by the Materials Division of the Port Authority of NY & NJ.

BOSWELL can easily field as many as four (4) 3-man dive teams on any given day in the northeast with less than 24-hours notification. This is by virtue of having a sufficiently large and stable dive staff that is supplemented with a wide array of diver support equipment which is company owned.

During underwater inspections, all dive team members will undergo frequent diver changeovers in order that fatigue is avoided, maximum efficiency is achieved, and inspection quality is kept high.

All of the diver candidates proposed for this contract have previously worked on PANY&NJ waterfront assignments and meet the diver qualification requirements set forth by the Bridge Inspection Manual published by the FHWA. The majority of them have also worked as divers on contracts awarded to BOSWELL by the New York Power Authority, the Arkansas State Highway & Transportation Department, the New York State Department of Transportation, the New Jersey Department of Transportation, the Triborough Bridge & Tunnel Authority, the Delaware River Port Authority of PA & NJ, and the U.S. Navy.

SECTION V

MANAGEMENT APPROACH

MANAGEMENT APPROACH

The Director of Boswell Underwater Engineering, acting as Project Manager/ Directing Engineer Diver, and the On-Site P.E./Team Leader (Chief Engineer Diver) assigned to this contract will, within 24 hours of notification by the Port Authority of New York and New Jersey (PANY&NJ) to perform a waterfront facility condition survey or repair design, meet with the Authority's designated representative(s) to review the work scope requirements and obtain all necessary and pertinent information of a particular task order or assignment. When appropriate, other Boswell staff members assigned to the project will also attend the meeting with the Authority. Boswell's Project Manager will then review this data with his Chief Engineer Diver and/or Chief Structural Engineer assigned to the project and discuss any specific details involved. A cost estimate and manpower analysis to execute the Scope of Work is then prepared (in conformance with Task A as presented in the RFP) and submitted to the PANY&NJ for approval. If necessary, the Authority will request a modification of the proposed Scope of Work and/or cost estimate which is then revised by Boswell's Project Manager and resubmitted for approval. Once approved, an inspection schedule is submitted to the Authority based on project site access requirements, if any have been stipulated.

Upon the Authority's approval of the schedule, Boswell's Project Manager will then commence mobilizing the necessary personnel and equipment as required to effectively execute the work scope.

Although the amount and diversity of personnel and equipment assigned to each individual project or assignment under this contract may vary with the work scope requirements, Boswell's experience with waterfront condition surveys on Port Authority facilities has normally involved the deployment of a 3-man field inspection team, equipped with commercial diver support gear, underwater 35-mm photographic equipment with 15-mm super wide-angle lens and/or underwater digital cameras, and ultrasonic thickness gauging instrumentation to accomplish inspections. In some cases, an appropriate sized boat and/or underwater videotape equipment is provided. Occasionally, Boswell will perform a hydrographic survey using an electronic range-azimuth system in combination with a digital recording fathometer.

Prior to commencing the survey, the owner/tenant is contacted and consulted regarding the facility's schedule in order to avoid interference with daily operations. This often involves the arrival and departure of ships at various berthing facilities in Port Newark and Port Elizabeth. In addition, much of our work is scheduled around tides to provide the most efficient inspection.

While performing field inspections, the On-Site P.E./Team Leader (i.e., the Chief Engineer Diver or Senior Engineer Diver) heading each team will develop and maintain all necessary inspection records and documentation. For topside structural evaluations of buildings and related facilities, Boswell's Chief Structural Engineer will visit the site(s) to conduct the condition surveys, as a prelude to performing load bearing calculations when required. Upon completion of the field work, the Team Leaders will develop the inspection reports, drawings, photo logs, and sketches, working closely with Boswell's Project Engineers who will coordinate the preparation of all drawings in an AutoCAD or Microstation format. Before the preliminary reports are completed, they are thoroughly reviewed by Boswell's Quality Control Engineer and/or Chief Structural Engineer prior to consulting with the team's Project Manager.

Several tiers of quality control will follow the preparation of the preliminary report whereby it is first reviewed by the On-Site P.E. / Team Leader, followed by the Chief Structural Engineer and/or the Quality Control Engineer, and finally Boswell's Project Manager prior to submission.

All preliminary and final reports will be submitted in a timely fashion in order to facilitate the maintenance of PA facilities, particularly with regard to immediate, priority, routine, and safety repairs. The Port Authority will be notified immediately if structurally critical areas are discovered in surveyed waterfront installations which require immediate action.

On projects of larger magnitude, Boswell's Project Manager & Directing Engineer Diver/QC Engineer and/or the Chief Structural Engineer will accompany the inspection team(s) into the field, directing and coordinating operations, and performing condition surveys.

SECTION VI

PERSONNEL HOURLY RATES & MULTIPLIER

PERSONNEL HOURLY RATES

CLASSIFICATION	NAME(s)	CURRENT UNBURDENED OFFICE RATE
Project Manager/Directing Engineer Diver/ QC Engineer	Michael Ganas, P.E., P.P.	100.24
Chief Engineer Diver / Team Leader	Ljupcho Naumchevski, P.E.	71.40
Senior Engineer Diver / Team Leader	Jeremy Pope, P.E.	56.71**
Engineer Diver (s)	Joseph Gaylord, E.I.T.	23.46**
	Hoi Leung	27.50**
Chief Inspector Diver / Assistant Team Leader	Dennis Cassidy	60.95
Senior Inspector Diver(s) / Assistant Team Leader(s)	Marco Giacchi	33.00**
	Paul Dombrowski	30.60**
Inspector Diver(s) / Assistant Team Leader(s)	Jamie Faraldi	26.50**
	Tracy McMahon	25.50**
Inspector Diver	Gary Watson	24.52**
Chief Fathometer Surveyor	Frank Krupinski, P.L.S.	53.13
Fathometer Surveyor	Jamie Faraldi	26.50**
	Joseph Gaylord, E.I.T.	23.46**
Chief Structural Engineer/QC Engineer	John Valentin, P.E.	63.50
Structural Engineer	Tom O'Fallon	39.75
CAD Operator	Kamol Kongtong	24.45

Regular Multiplier (for 8-hr. regular time and authorized overtime) 2.74***

NOTE:

1. The wage rates listed for each classification may vary, but are subject to annual increases due to performance merit, escalating cost of living, and promotions to higher categories.

2. Multipliers include all diver support equipment customarily required for the execution of the work, including underwater camera with 15-mm lens and electronic flash or underwater digital camera.

3. Work authorized to take place beyond 8 hours of each day or on Saturdays, Sundays, or holidays will be considered overtime. As such, listed wage rates will be increased by a factor of 1.5 for overtime work

executed during week days and Saturdays, and by a factor of 2.0 for work executed on Sundays and holidays.

4. Based on past experience with Port Authority projects, each field inspection unit will normally consist of a two or three-man team comprised of any combination of Inspector Divers, Chief Inspector Diver, Engineer Divers, Senior Engineer Divers, Chief Engineer Diver, or Directing Engineer Diver.

5. When submerged diving is not required, such as floating during a low tide event, a two-man field inspection unit may occasionally be sufficient to execute the work.

6. A three-man land survey crew is available, if required, for establishing reference points, and vertical and horizontal controls.

**7. A union wage rate of $102.05/hr. (i.e., $58.95/hr. for labor plus $42.75/hr. for fringe and industrial benefits plus $0.35/hr. for Dockbuilders Heavy Construction Industry Fund) will be applied to the categories of Chief Inspector Diver, Senior Engineer Diver, Engineer Diver, Senior Inspector Diver, and Inspector Diver for diving work conducted in the field. However, a multiplier will be applied to the employee's current office hourly wage rate and a premium added onto this (i.e., the difference between $102.05 and the employee's current office hourly wage rate). Authorized overtime will increase the labor portion ($58.95/hr.) of the union wage rate by a factor of 1.5 for field work performed on weekdays and Saturdays, and by a factor of 2.0 for field work performed on Sundays and holidays. The preceding terms are based on the latest Dockbuilders Local 1456 collective bargaining agreement. Union wage rates and fringe and industrial benefits are subject to periodic increases. In summary, the client will be billed in the following manner.

Straight-Time Labor

$$B = (2.74\ RT) + (102.05 - R)\ T$$

Overtime Labor - During Week Days and Saturdays

$$B = [2.74\ RP + 0.5\ RP] + [\{(1.5 \times 58.95) + 43.10\} - 1.5R]\ P$$

Overtime Labor - During Sundays and Holidays

$$B = [2.74\ RP + RP] + [\{(2.0 \times 58.95) + 43.10\} - 2.0R]\ P$$

where

R = current wage rate

T = total number of regular hours worked

P = total number of overtime hours worked

B = billable amount

***8. Multiplier Breakdown:

Direct Labor:	100%
Components of Overhead:	
Payroll Taxes	13.49%
Group Insurance	10.26
Paid Leaves	19.02
Indirect Salaries	64.34
Profit Sharing	5.24
Miscellaneous Taxes	2.46
Depreciation	3.14
Insurance	10.26
Professional Fees	4.15
Engineering Supplies	0.71
Auto Expense	4.68
Reimbursed Costs	0.48
Rent	0.32
Utilities	1.28
Dues & Subscriptions	1.41
Telephone	1.24
Maintenance	1.63
Office Supplies	4.68
Miscellaneous	0.04
	148.82%
Profit:	10.00%
Multiplier = 1.10 x (1.00 + 1.49) =	2.74

9. As under previous "call-in" contracts with the PANY & NJ, penetration dive premiums will be applied for projects requiring lateral penetration dives into enclosed spaces fully inundated with water or into enclosed environments such as sewer lines which present highly contaminated conditions (See the BUE Schedule of Lateral Penetration Dive Rates in the Appendix).

SECTION VII

EXHIBIT I (DAILY DIVE COST ESTIMATE)

MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES (RFP # 30225)

EXHIBIT I - DAILY DIVE COST ESTIMATE

	ITEM	TIME	HOURLY RATE	MULTIPLIER	*STRAIGHT TIME CHARGE	*FLAT CHARGE	*OFFICE CHARGE
HOURLY RATE	Sr. Engineer Diver	8 Hours	$ 56.71	2.74	$ 1,243.08	$ 362.72	$ 1,243.08
	Engineer Diver	8 Hours	$ 23.46	2.74	$ 514.24	$ 628.72	$ 514.24
	Inspector Diver	8 Hours	$ 26.50	2.74	$ 580.88	$ 604.40	$ 604.40

UNIT PRICES	Workboat (25-ft)	8 Hours	$ 37.50
	Workboat (16-ft)	8 Hours	$ 25.00
	U/W Video Camera System (color) per day		$ 250.00
	Hydraulic Wood Coring Equipment per day		$ 300.00
	U/W Cutting/Burning Equipment per day		$ 300.00
	HAZMAT Diver Encapsulation Gear per day		$ 250.00
	Water Jet Pump per day		$ 250.00
	Cygnus 1 UT Gauge per day		$ 150.00

* ***NOTES:***

STRAIGHT TIME CHARGE = No. of Hours x Hourly Rate x Multiplier
FLAT CHARGE =(Diver Premium of $102.05/hour - Employee Rate/Hour)x Number of Hours
OFFICE CHARGE = Employee Rate/Hour x Number of Hours (Diver Premium Does not apply) Any office time gets added to the Straight Time Charge Total

SECTION VIII

QUALITY CONTROL / ASSURANCE PLAN

QUALITY CONTROL / ASSURANCE PLAN

Since its founding in 1924, Boswell Engineering, Inc. has developed a reputation that has been signified by providing quality service. This quality service is presently being provided through utilization of a comprehensive Quality Assurance Plan (QAP) that ensures that the professional services rendered satisfy the goals established by the client by maintaining a high level of technical quality throughout the duration of the project. The main objective of the plan is to ensure the successful completion of the contracted assignment so that excellence of quality is achieved. This will be accomplished through well defined procedures for in-house project reviews and effective communication with the PANY & NJ. The result to be obtained is a high quality product which meets the project schedule and established budget.

Quality Control During Field Inspection

Due to the complexity of the project and the necessity to accurately record the existing conditions, quality assurance and quality control (QA/QC) will be of critical importance. The Quality Control Engineer will be responsible for the technical quality of the field work. This will be accomplished in the following manner.

The Quality Control Engineer will:

- Periodically visit the site(s) to evaluate each team members assessment of existing conditions.
- Review all field notes with designated office engineers whose job will be to assimilate the field notes.
- Check the developed as-built plans against the actual field conditions encountered to ensure minimal discrepancies.
- Review all non-destructive testing information, as well as core samples on a periodic basis, making conclusions and recommendations.
- Oversee the team leaders in their execution of the inspections.

The Team Leaders will:

- Check and verify the team's field notes.
- Check the recorded as-built structural member locations against the actual field conditions to ensure that no discrepancies exist.

During underwater inspections, an in-water check will be made each time a new diver enters the water. This will be done by having the second diver verify the conditions found on four (4) structural members previously inspected by the first diver.

In-house meetings will be held to keep field team members informed of all recent findings or anomalies that have occurred.

Quality Control During Report Preparation

The Project Manager will provide guidance and insight to the field staff, focusing his considerable underwater inspection and condition survey experience toward solid quality control. He will be responsible for the overall progress and quality of the work and its administrative management to assure the project is proceeding properly and that it stays within the approved budget.

Several tiers of quality control will follow the preparation of the reports whereby they are first reviewed by the Inspector or Engineer Divers, followed by the On-Site P.E./Team Leaders, then the Chief Structural Engineer. The Quality Control Engineer will then make a preliminary review of the deliverable(s) before turning it over to Boswell's Project Manager for a final review.

All reviews and reports will be submitted in a timely fashion. The PANY & NJ will be notified immediately if changes to the work scope are required or if structurally critical areas are discovered that jeopardize public safety or the safety of Port Authority personnel.

SECTION IX

TECHNICAL QUALIFICATIONS OF KEY PERSONNEL

MICHAEL J. GANAS, P.E., P.P.
Project Manager & Directing Engineer Diver / QC Engineer

EDUCATION

MSCE, New Jersey Institute of Technology - Construction Management major
BSCE, Cornell University
MBA, Fairleigh Dickinson University - Finance Major

REGISTRATION

Professional Engineer - New York, New Jersey, Connecticut, Maine, Maryland, Pennsylvania, North Carolina, South Carolina, Florida, New Hampshire, West Virginia, Indiana, Virginia, Georgia, and Arkansas

Professional Planner - New Jersey

DIVING CERTIFICATIONS

- Deep Sea Commercial Diver - Coastal Diving Academy
- SSI Advanced Open Water Scuba Diving Instructor
- NAUI Advanced Open Water Scuba Diver
- Civil Defense Scuba Rescue Squad
- Confined Space Entry – OSHA 29 CFR 1910.146 (g) (4)
- ADCI (Association of Diving Contractors International) Surface-Supplied Air Diver I.D. 379, Certification No. 17897

BRIDGE INSPECTION CERTIFICATIONS

- Underwater Inspection and Repair of Bridges, George Washington University
- 2006 Bridge Inspection Workshop, New York State Department of Transportation (5-Day Course)
- 2006 Annual Bridge Inspector's Training, New York State Department of Transportation (5.5 hrs.)
- 2008 Annual Bridge Inspector's Training, New York State Department of Transportation (5.5 hrs.)
- 2011 Annual Bridge Inspector's Training, New York State Department of Transportation (14.5 hrs.)
- 2011 Inspecting Steel Bridges for Fatigue, New York State Department f Transportation (6 hrs.)

KEY QUALIFICATIONS

Mr. Ganas has over 33 years of extensive experience in management and administration of more than 900 marine engineering and construction projects. He has also managed numerous projects entailing rehabilitation/repair design of dam structures. He is the Managing Vice-President of Boswell Underwater Engineering, a division of Boswell Engineering specializing in the investigation, structural evaluation, and design of marine structures and hydrographic/fathometric surveying of waterway bottoms. With a substantial background on civil, structural, and construction engineering projects, he is skilled in project management and administration, cost estimating/analysis, project planning and control, and possesses a strong background in marine construction techniques. Having performed over 400 hydrographic surveys, hydrography and fathometric charting techniques are among his forte, including scour analysis and scour remediation of bridge substructures, subaqueous mapping locating of utility crossings, and contour mapping of channel improvement and reprofiling projects.

He has physically performed underwater diving inspections on the submerged components of over 370 water-spanning bridges and over 300 waterfront structures such as piers, wharves, and relieving platforms. He has managed numerous projects involving underwater condition surveys of bridge structures in conformance with NBIS Standards for a wide array of public agencies, including the New York State, Connecticut, Delaware, New Jersey, Minnesota and Arkansas DOTs, overseeing the underwater inspection and quality control of over 10,068 substructure units supporting 2,800 bridges since 1987. He has also been the engineer-in-charge during the performance of over 882 fathometer surveys on water-spanning bridges to assess scour patterns during this same time period. He holds certification in the Underwater Inspection and Repair of Bridges from George Washington University. He is also a member of the Transportation Research Board (TRB) Subcommittee A3C06(1) on Inspection and Maintenance of Underwater Components of Structures.

He is an expert in all aspects of identifying, assessing, and remediating marine borer intrusion in timber structures. This expertise was manifested in a magazine article

which he co-authored entitled *"Marine Borer Activity on the Rise in New York Harbor"*, which appeared in the December '93 edition of Public Works Magazine. He has also authored *"Underwater Inspection of Waterfront Facilities and Bridges: Typical Considerations and Widespread Abuses"*, which was published in the March 2003 edition of the Water Operation and Maintenance Bulletin issued by the U.S. Department of the Interior's Bureau of Reclamation.

A certified Deep Sea Commercial Diver and an SSI Advanced Open Water Diving Instructor, he has provided underwater investigations, inspections, and survey work on structural assignments, many of which required videotape documentation and ultrasonic thickness gauging of steel, wood, and concrete submerged members. He has also devised methodology and procedure for performing underwater inspections on an assortment of marine structures, including subaqueous pipelines, bridges, spanning waterways, and various port facilities such as piers, wharves, and bulkheads. On past projects, he has investigated and evaluated the effectiveness of various generic timber pile guard systems against marine borer attack, and the effectiveness and longevity of various cathodic protection systems against electrolytic corrosion of marine steel substructures. His experience includes an expertise on investigating and assessing the extent of marine borer intrusion and fungal attack in waterfront timber structures and the effects of biodeterioration on the load bearing capacity of structural members.

With over 3,800 hours logged underwater as a construction and inspection diver, Mr. Ganas has considerable insight relating to factors affecting subaqueous construction and inspection. This experience has manifested itself in published technical material which he has authored.

RELEVANT EXPERIENCE

PANY&NJ Waterfront Condition Surveys Technical Services on Call-In Basis (MED & QAD). Project Manager on over 333 projects (spanning 16 consecutive or concurrent term agreements) conducted on various port and harbor facilities and marine structures such as shipping berths, ferry terminals, piers, wharves, bulkheads, relieving platforms, bridges, intake screens, and sluice gates. Projects involved underwater condition surveys, repair designs, and construction inspection of concrete, steel, and timber waterfront facilities, often including hydrographic/fathometric surveys of adjacent waterway bottoms. Inspections frequently utilized core sampling, NDT ultrasounding instrumentation, electronic differential GPS or range-azimuth hydrographic survey systems, videotape and photographic documentation. Term Agreements 426-89-14, 40-90-007M, 410-92-003M, 426-94-010, 426-95-001, 426-96-009, 426-97-007, 426-98-012, 426-99-003, 426-06-006, 426-09-012, 405-00-02, 405-03-007, 405-06-18, 405-09-025, 405-12-022. Port Authority of New York and New Jersey (1989 - Present).

NYSDOT Regions 1 through 11 Bridge Diving Inspections & Fathometer Surveys. Director & Quality Control Engineer on 15 contracts (5 overlapping and concurrent) involving underwater inspections of 1663 water-spanning bridges (6,658 SSU) and 814 fathometric surveys of waterways. New York State Department of Transportation. (January '91 - Present).

DELDOT Bridge Diving Inspections. Project Manager and Quality Control Engineer on four (4) consecutive, 3-year contracts involving underwater inspections on a total of 299 bridges (695 SSU), including low-clearance structures spanning waterways. (Agreement Nos. 755, 905, 1114, 1289). Delaware Department of Transportation. (June '95 – December 2007).

NYPA On-Call Engineering & Diving Services All Facilities. Project Manager on an indefinite quantity three-year term contract for the New York Power Authority to provide underwater diving and professional engineering services. BUE performed the first diving inspection of the trash rack guides, stop log guides, heat gate guides and draft tube at the Robert Moses Power Plant on the Niagara River (2003-2005).

TOTAL YEARS OF EXPERIENCE 33 years

The University of the State of New York
Education Department
Office of the Professions

REGISTRATION CERTIFICATE

Do not accept a copy of this certificate

License Number: 062754-1 Certificate Number: 7734958

GANAS MICHAEL J
BOSWELL ENGINEERING
330 PHILLIPS AVE
SOUTH HACKENSACK NJ 07606-0000

is registered to practice in New York State through 06/30/2015 as a(n)
PROFESSIONAL ENGINEER

LICENSEE/REGISTRANT

COMMISSIONER OF EDUCATION

EXECUTIVE SECRETARY

DEPUTY COMMISSIONER
FOR THE PROFESSIONS

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State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Prof. Engineers & Land Surveyors

HAS LICENSED

MICHAEL J. GANAS
(Ex. 1)

FOR PRACTICE IN NEW JERSEY AS A(N): Professional Engineer

03/27/2012 TO 04/30/2014
VALID

24GE03266600
LICENSE/REGISTRATION/CERTIFICATION #

Signature of Licensee/Registrant/Certificate Holder

DIRECTOR

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Board of Prof. Engineers & Land Surveyors
HAS LICENSED
MICHAEL J. GANAS
Professional Engineer

03/27/2012 TO 04/30/2014
VALID

SIGNATURE

24GE03266600
License/Registration/Certificate #

DIRECTOR

PLEASE DETACH HERE

IF YOUR LICENSE/REGISTRATION/ CERTIFICATE ID CARD IS LOST PLEASE NOTIFY:
Board of Prof. Engineers & Land Surv
P.O. Box 45015
Newark, NJ 07101

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State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Professional Planners

HAS LICENSED

Michael J. Ganas
(Ex. 1)

FOR PRACTICE IN NEW JERSEY AS A(N): Professional Planner

04/16/2012 TO 05/31/2014
VALID

33LI00469400
LICENSE/REGISTRATION/CERTIFICATION #

Signature of Licensee/Registrant/Certificate Holder

DIRECTOR

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Board of Professional Planners
HAS LICENSED
Michael J. Ganas
Professional Planner

04/16/2012 TO 05/31/2014
VALID
SIGNATURE

33LI00469400
License/Registration/Certificate #
DIRECTOR

PLEASE DETACH HERE

IF YOUR LICENSE/REGISTRATION/ CERTIFICATE ID CARD IS LOST PLEASE NOTIFY:
Board of Professional Planners
P.O. Box 45016
Newark, NJ 07101

PLEASE DETACH HERE

COASTAL DIVING ACADEMY

This is to certify that

MICHAEL GANAS

has successfully completed the prescribed training program and is hereby certified as

DEEP SEA COMMERCIAL DIVER

given on this 13th day of December 75

C.R. HERSEY, DIRECTOR of TRAINING and PLACEMENT

L.J. SHOUROT, DIRECTOR

THIS IS TO CERTIFY THAT

NAUI

MICHAEL GANAS

HAS SATISFACTORILY COMPLETED AN

ADVANCED COURSE

IN SKIN AND SCUBA DIVING UNDER THE SANCTION OF
THE NATIONAL ASSOCIATION OF UNDERWATER INSTRUCTORS

HAVING BEEN CERTIFIED ON 12/25

AT COASTAL DIVING ACADEMY

President, Glen H. Egstrom

Charles R. Heroy 2017

Instructor's Signature Number

REGISTRATION NO. A12419

NAUI ADVANCED SCUBA DIVER

ADC INTERNATIONAL

Association of Diving Contractors International

HAVING PLEDGED TO SUPPORT THE PURPOSES OF THIS ASSOCIATION

BOSWELL ENGINEERING, INC.

IS RECOGNIZED AS A GENERAL MEMBER FOR THE CURRENT YEAR

SCOPE OF WORK: COMMERCIAL DIVING AND MARINE SERVICES

2012

Member # 3547

Phil Newsum, Executive Director

100

Scuba Schools International

hereby certifies that

MIKE GANAS

has successfully completed
all requirements for

ADVANCED OPEN WATER INSTRUCTOR

DATE April, 1983

COURSE DIRECTOR

DIRECTOR SCUBA SCHOOLS INTERNATIONAL

Association of Diving Contractors International

Cert. # 17897

Expires 06/28/2016

SURFACE-SUPPLIED AIR DIVER

Michael J. Ganas **I.D. 379**

Commercial Diver Certification Card

BOSWELL UNDERWATER ENGINEERING

The George Washington University

SCHOOL OF ENGINEERING AND APPLIED SCIENCE

CONTINUING ENGINEERING EDUCATION PROGRAM

THIS CERTIFICATE IS AWARDED TO

MIKE GANAS

in recognition of successful completion of
Advanced Engineering Education short noncredit course

UNDERWATER INSPECTION AND REPAIR OF BRIDGES

For which
0.72 Continuing Education Units are awarded

Dean, School of Engineering and Applied Science

Presented in Washington, D.C.
Date April 13, 1988

Director, Continuing Engineering Education

State of New York
Department of Transportation
Record of Completion

EXCELSIOR

This is to document that

Michael Ganas

Has Received Instruction in the Methods
of Bridge Inspection Prescribed by the
Structures Design and Construction Division

in token whereof this document is granted

Given at Schenectady, New York, March 31, 2006

Structures Design and Construction Division

BOSWELL UNDERWATER ENGINEERING

New York State
Department of Transportation

PIE Organization#SM1000007

CERTIFICATE OF COURSE COMPLETION

This certifies that *Michael Ganas* has completed

2006 BRIDGE INSPECTOR'S MEETING

Total # of PDH for course: 7.5

Date: 3/1-2/2006

Louis P DeSol
Director, OHR Management

Angel L. Castro
NYSDOT Internal Continuing Education Coordinator

Course #20060050

New York State
Department of Transportation

PIE Organization#SM1000007

CERTIFICATE OF COURSE COMPLETION

This certifies that *Michael Ganas* has completed

BRIDGE INSPECTION WORKSHOP

Total # of PDH for course: 21.5

Date: 3/27/2006 - 3/31/2006

Louis P DeSol
Director, OHR Management

Angel L. Castro
NYSDOT Internal Continuing Education Coordinator

Course #20060046

LJUPCHO NAUMCHEVSKI, P.E.

Project Manager / Chief Engineer Diver

EDUCATION

BSCE, Kiril and Metodij University, Skopje, Macedonia

REGISTRATION

Professional Engineer – New York, Delaware, Pennsylvania, Connecticut, New Jersey, California (Pending)

DIVING CERTIFICATIONS

- PADI Certified Open Water Diver
- BUE On-The-Job Training in Commercial Hard Hat Diving Techniques
- BUE On-The-Job Training in Underwater Inspection of Bridge
- Confined Space Entry – OSHA 29 CFR 1910.146 (g) (4)
- ADCI (Association of Diving Contractors International) Surface-Supplied Air Supervisor I.D. 489, Certification No. 44197
- 40-Hour Health and Safety for Hazardous Waste Site Investigation Personnel

BRIDGE INSPECTION CERTIFICATIONS

- Safety Inspection for In-Service Bridges - FHWA National Highway Institute Certificate of Training (80 hrs.)
- 2005 Bridge Inspection Workshop, New York State Department of Transportation (5-Day Course)
- 2005, 2007, 2009, 2010 & 2012 Annual Bridge Inspector's Training, New York State Department of Transportation (80 hrs. Total)
- 2007 Inspecting Steel Bridges for Fatigue, New York State Department of Transportation (8 hrs.)
- 2010 Behavior Failure Mechanisms and Inspection of R/C and Prestressed concrete Bridges, New York State Department of Transportation (8 hrs.)

KEY QUALIFICATIONS

Mr. Naumchevski is a key staff member of Boswell Underwater Engineering (BUE), a division of Boswell Engineering specializing in the investigation and structural evaluation and design of marine infrastructures. As a BUE staff member, he serves in the capacity of project manager, engineer diver, and hydrographic/fathometric surveyor and has physically performed underwater diving inspections on the submerged components of more than 780 bridges spanning waterways and conducted over 400 hydrographic/fathometric surveys. He has gained substantial experience over a 21 year span on diving projects requiring underwater inspections of port and harbor facilities, bridge substructures, piers, relieving platforms, waterfront bulkheads, submerged pipeline installations, and offshore platforms, logging over 4100 hours underwater on inspection assignments. Concurrent with this, he has developed a handsome track record of hydrographic/fathometric surveying experience, a substantial amount of which involved scour investigations of bridges spanning waterways and pre-and-post dredging surveys. In addition, his background includes structural design and analysis of bridges, box culverts, and marine facilities, as well as bridge, pier, and relieving platform rehabilitation design and rating. He is skilled in commercial hard hat diving techniques, underwater photographic and videotape documentation, ultrasounding of metal structural elements for determining section loss, and hydrographic surveying techniques using electronic range-azimuth and differential GPS systems. He has extensive experience in the preparation of condition survey reports and is skilled in the use of interactive Auto-CAD software for preparing plan, elevation, and fathometer contour drawings. He is an expert at identifying and evaluating the extent of biodeterioration caused by marine borer intrusion in submerged timber structures through core sampling techniques. He is also actively engaged in BUE's in-house marine borer research test board program, which seeks new ways of controlling marine borer intrusion in timber structures.

RELEVANT EXPERIENCE

*Representative projects on which Mr. Naumchevski has worked as a **Project Manager, Team Leader, On-Site P.E. Diver, and Design Engineer** include:*

PANY&NJ QAD Division On-Call Waterfront Condition Survey Contracts. On-Site P.E. Diver/Team Leader performing condition surveys, structural evaluations, and repair designs on over 39 major assignments for the Port Authority of New York & New Jersey Quality Assurance Division involving shipping berths, piers, bulkheads, and relieving platforms comprised of timber, steel and reinforced concrete. Some of the facilities included Port Newark and Port Elizabeth, NJ, the New Jersey Auto Marine Terminal, Brooklyn Piers 9A and 9B, NY, Howland Hook Marine Terminal, NY, Manhattan Ferry Terminals, and Airports. (Term Agreements 405-00-02, 2000-2002; 405-03-007, 2003-2005; 405-06-018, 2006-2008; 405-09-025, 2009-2011) (January '00 - Present).

PANY&NJ Materials Engineering Division (MED) On-Call Waterfront Technical Service Contracts. On-Site P.E. Diver/Team Leader on over 100 inspection assignments involving port and harbor facilities, shipping berths, and waterfront structures owned by the Port Authority of New York and New Jersey. (February '92 – Present).

NYSDOT Regions 1 through 11 Bridge Diving Inspections & Fathometer Surveys. Project Manager & On-Site P.E. Diver/Team Leader on fifteen (15) consecutive NYSDOT Bridge Diving Contracts during the last 20 years (including five (5) overlapping contract agreements) involving routine underwater inspections of 1,637 bridge structures (6,507 SSU) and fathometer surveys of an additional 776 bridges located in the Eastern, Western, and Southern Regions of New York State. New York State Department of Transportation. (April '91 - Present).

ConnDOT Railroad Bridge Diving Inspections. On-Site P.E. Diver/Team Leader on bridge diving inspection project involving underwater condition surveys of 13 railroad bridges (34 SSU) owned by the Connecticut Department of Transportation. Boswell acted as subconsultant to Purcell Associates. (January '09 – Dec. 2010).

Delaware Department of Transportation Bridge Diving Inspections. Performed condition surveys of 299 bridges spanning waterways (695 substructures) on four (4) consecutive term agreements, including superstructures on low-clearance bridges, in conformance with NBIS Standards and PONTIS Bridge Management System, functioning as On-Site P.E. Diver/Team Leader, and prepared all reports. Delaware Department of Transportation. (Agreement Nos. 755, 905, 1114, and 1289). (February '94 - 2007).

ConnDOT Underwater Bridge Inspections. Project Manager on statewide project involving diving inspections of 380 bridges, including low-clearance structures spanning waterways. Performed quality assurance of report preparation efforts, including PONTIS assessments of low-clearance structures. Reviewed bathymetric surveys performed by subcontractor for quality and accuracy. Connecticut Department of Transportation. (September '98 - August '00).

MTA Metro-North Railroad Bridge Undergrade Inspections. Senior Engineer Diver/Team Leader on project involving underwater and above water inspections of 26 railroad bridges supporting four (4) commuter rail lines. MTA Metro-North Railroad. (January '98 - January '99).

PennDOT, Greensburg Expressway, Greensburg, Pennsylvania. Design of both superstructure and substructure of four (4) bridges and five (5) culverts. Pennsylvania Department of Transportation. (June '89 - May '91).

ConnDOT. Inspection and rehabilitation design of five (4) bridges at the Merrit Parkway. Connecticut Department of Transportation. (June '90 - June '91).

NJDOT, Hunterdon County. Design of Bridge R-178 and Q-30 over the Prescott Brook and Second Noshank River, respectively. New Jersey Department of Transportation (May '90 - June '91).

NJDOT, Sussex County. Inspection and load rating of 64 bridges. New Jersey Department of Transportation (September '89 - March '93).

NJHA. Inspection and load rating of 30 bridges on the Garden State Parkway. New Jersey Highway Authority. (September '92 - December '92).

State University of New York / New York State Office of General Services (NYSOGS) - Phase I – Condition Survey & Assessment of Multiple Waterfront Structures: Conducted a condition survey and assessment of multiple waterfront structures for the State University of New York (SUNY) Maritime College at Fort Schuyler in May of 2001. The purpose of the survey was to determine the overall condition of the structures and to identify any structural, non-structural or safety deficiencies which would comprise their integrity. Then developed the recommendations for correcting any deficiencies that were found. **Phase II – Rehabilitation Design of Pier Support Structures (OGS Project No. 8849):** Due to a critical condition found at the Approach Pier while conducting Phase I, imminent failure of several structural reinforced concrete and steel elements was possible due to the advanced state of deterioration. Therefore, the original scope of work was expanded and approved under a separate agreement with the New York State Office of General Services (NYSOGS). The additional scope required immediate repair design and implementation, followed by construction inspection services to assure contractor compliance with plan and specification documents. Recommended and designed a 50-foot temporary bridge was installed to provide continuous operations at the Maritime College. Prior to preparing a design, a comprehensive structural analysis was performed on Pile Bents T, U, and W and the deck slabs spanning between them. Based on this, it was determined that these structural members could not withstand HS 20 type loading. As a result, four (4) 12.75 O.D. x 0.375 steel pipe piles were driven to depths of 45 feet and filled with concrete. Each pile had a minimum capacity of 40 tons. In carrying out the construction inspection portion of the work, test borings were conducted to determine the substrata suitability for driven piles, followed by monitoring of pile driving operations to verify required depths and driving resistance. The project concluded with the observance of dynamic load testing of the driven piles which proved to be sufficient for bearing the required loads. (May '91)

TOTAL YEARS OF EXPERIENCE 22 years

The University of the State of New York
Education Department
Office of the Professions
REGISTRATION CERTIFICATE
Do not accept a copy of this certificate

License Number: 072891-1 Certificate Number: 6949873

NAUMCHEVSKI LJUPCHO TODOR
BOSWELL ENGINEERING
330 PHILLIPS AVENUE
SOUTH HACKENSACK NJ 07606-0000

is registered to practice in New York State through 04/30/2013 as a(n)
PROFESSIONAL ENGINEER

LICENSEE/REGISTRANT

COMMISSIONER OF EDUCATION

EXECUTIVE SECRETARY

ASSOCIATE COMMISSIONER
OFFICE OF THE PROFESSIONS

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State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Board of Prof. Engineers & Land Surveyors

HAS LICENSED

Ljupcho Naumchevski
(Ex. 1)

FOR PRACTICE IN NEW JERSEY AS A(N): Professional Engineer

03/20/2012 TO 04/30/2014
VALID

24GE04897200
LICENSE/REGISTRATION/CERTIFICATION #

Signature of Licensee/Registrant/Certificate Holder

DIRECTOR

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Board of Prof. Engineers & Land Surveyors
HAS LICENSED
Ljupcho Naumchevski
Professional Engineer
03/20/2012 TO 04/30/2014
VALID
SIGNATURE
24GE04897200
License/Registration/Certificate #
DIRECTOR

PLEASE DETACH HERE

IF YOUR LICENSE/REGISTRATION/ CERTIFICATE ID CARD IS LOST PLEASE NOTIFY:
Board of Prof. Engineers & Land Surv
P.O. Box 45015
Newark, NJ 07101

PLEASE DETACH HERE

STATE OF CONNECTICUT ✦ DEPARTMENT OF CONSUMER PROTECTION

Be it known that

LJUPCHO T NAUMCHEVSKI
330 PHILLIPS AVE
S HACKENSACK, NJ 07606-1717

has been certified by the Department of Consumer Protection as a licensed

PROFESSIONAL ENGINEER

License #PEN.0020782

Effective: 02/01/2012
Expiration: 01/31/2013

William M. Rubenstein, Commissioner

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute
Certificate of Training

Ljupcho Naumchevski

has satisfactorily completed training in

Safety Inspection for In-Service Bridges

conducted by

Indiana Department of Transportation

Location: Indianapolis, Indiana

Date: February 6-17, 1995

Hours of instruction: 80

Continuing Education Units: 6.0

Instructor

Coordinator

Director, National Highway Institute

Federal Highway Administrator

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that *Ljupcho Naumchevski* has completed

Bridge Inspectors Meeting

Professional Development Hours Awarded: 7
Course #20070083

Location: Albany, NY
Date: March 6 & 7, 2007

Louis P DeSol
Director, OHR Management

Gary A Frederick
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state.

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that *Ljupcho Naumchevski* has completed

Inspecting Steel Bridges for Fatigue

Professional Development Hours Awarded: 7
Course #20070076

Location: Albany, NY
Date: March 8, 2007

Louis P DeSol
Director, OHR Management

Gary A Frederick
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state.

New Jersey / New York Hazardous Materials Worker Training Center

Partially supported by the National Institute of Environmental Health Sciences and the National Institute for Occupational Safety and Health

This is to certify that

Ljupcho T. Naumchevski

Certificate #UMD1 03524

has successfully completed the course entitled

Health and Safety for Hazardous Waste Site Personnel

In Accordance With 29 CFR 1910.120(e)(3)(i)
40 Hr (3.65 CEU's for 40 contact hrs)
conducted by the
Office of Public Health Practice
UMDNJ - School of Public Health
in collaboration with the Environmental & Occupational Health Scien

UMDNJ SCHOOL OF PUBLIC HEALTH

Andrew R. Gotsch, DrPH
Center Director

January 5-9, 2009

Training Renewal Date: January 9, 2010

John M. Malool, MS
Course Director

JW Rufolo's Institute for Occupational Safety and Health

The Faculty
in recognition of successful completion of
the program of study required by
OSHA 29 CFR 1910.146(g)(4)
hereby confer upon
Ljupcho Naumchevski
the Certification of
Confined Space Entry
Given Onsite in the State of New Jersey.

For the Faculty
Joseph W Rufolo
Joseph W Rufolo
President & CEO

SAFETY HEALTH ENVIRONMENTAL IOSH

On this 19th
day of
January, 2012

JW Rufolo and Associates, Inc., Six Moyse Place, Edison, New Jersey 08820 ✆ (908) 757-5972

Association of Diving Contractors International

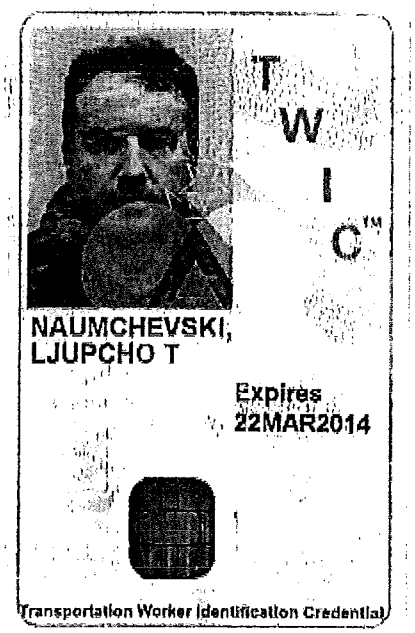
Cert. # 44197

Expires 01/04/2017

SURFACE-SUPPLIED AIR DIVING SUPERVISOR

Ljupcho Naumchevski I.D. 489

Commercial Diver Certification Card



JEREMY POPE, P.E.
Senior Engineer Diver / Fathometer Surveyor

EDUCATION:

Bachelor of Engineering in Civil Engineering, Stevens Institute of Technology

REGISTRATION:

Professional Engineer – New Jersey, New York, and Arkansas

DIVING CERTIFICATIONS

- PADI Certified Open Water Diver
- BUE On-The-Job Training in Commercial Hard Hat Diving Techniques
- BUE On-The-Job Training in Underwater Inspection of Bridges
- ADCI Surface-Supplied Air Diving Supervisor Certificate No. #44140
- Confined Space Entry – OSHA 29CFR 1910.46(4)

BRIDGE INSPECTION CERTIFICATIONS

- Safety Inspection of In-Service Bridges – FHWA National Highway Certificate of Training (80 Hour Course; 2009)
- Bridge Inspection Refresher Course – FHWA National Highway Certificate of Training
- 2011 Bridge Inspectors Workshop, New York State Department of Transportation (5-Day Course)
- 2012 Annual Bridge Inspectors Training, New York State Department of Transportation (16 hours)
- Shipyard Competent Person Course

KEY QUALIFICATIONS:

Mr. Pope is a key staff member of Boswell Underwater Engineering, a division of Boswell Engineering specializing in the investigation and structural evaluation of dam structures and marine infrastructures. He is proficient in commercial diving techniques utilizing surface-supplied air and hard hat equipment and has logged more than 3058 hours underwater on inspection assignments. In addition, he is experienced in fathometer surveying techniques and underwater videographic and photographic documentation. He is also highly skilled in the use of computer AutoCAD software for preparing engineering drawings, reports and contour maps. He also has experience in the design and analysis of marine structures, including platforms, seawalls, fender systems, temporary shoring systems and pier rehabilitation design. Altogether, he has physically inspected the submerged components of over 430 water-spanning bridges, more than 1050 waterfront structures, and 4 hydroelectric dam facilities. Furthermore, he has performed over 100 fathometric surveys associated with bridge scour assessments and dredging projects.

RELEVANT EXPERIENCE:

Mr. Pope has functioned in the capacity of ***Project Manager, Team Leader, On-Site P.E. Diver, Design Engineer*** *and/or* ***Fathometer Surveyor*** *on the following projects:*

PANY&NJ Waterfront Condition Surveys Technical Services on a Call-In Basis (MED & QAD). On-Site P.E. Diver/Team Leader and Fathometer Surveyor on over 62 assignments involving underwater quality assurance inspections on waterfront facilities undergoing repairs, and condition survey assessments of various types of marine structures including piers, wharves, relieving platforms, bulkheads, intake screens, and sluice gates. Port Authority of NY & NJ. (Oct. '96 – Nov. '99; Jan. '03 – March '05, Oct.'08 – Present)

NYSDOT Regions 1 through 11 Bridge Diving Inspections & Fathometer Surveys. On-Site P.E. Diver/Team Leader performing underwater inspections and fathometric surveys of over 310 bridges spanning waterways. Also prepared in excess of 150 CADD-generated contour maps of waterway bottoms. New York State Department of Transportation. (April '97 – Nov '99; Jan. '03- March '05, Oct.'08 - Present)

BICC Cables, Yonkers, New York. On-Site P.E. Diver/Team Leader on underwater structural investigation of various pier facilities, and preparation of plans and specifications for pier demolition, temporary structure design and new timber dolphins. (Feb.'09 – Sept.'09)

Kinder Morgan Liquids Terminal Facility Dock No. 2. On-Site P.E. Diver/Team Leader on underwater structural inspection and condition survey of timber pier and steel caisson facility. (March '09)

Irving Tissue Plant, Fort Edward, New York. On-Site P.E. Diver/Team Leader for underwater structural investigation and structural analysis of masonry culverts. (April '09)

United States Coast Guard Station. Underwater structural inspection and condition assessment of concrete pier structure at Nawiliwili Harbor, Kauai, Hawaii. (May '08)

Kawaihae Harbor Pier 2 Emergency Inspection. Underwater structural inspection and condition survey of Pier 2 to assess damage following the October 2006 earthquake near coast of Kona, Hawaii. (Oct. '06)

Kakaako Survey of Open Channel. Pre-construction survey of pre-cast concrete struts and pre-cast concrete sheetpile bulkhead. (Sept. '06)

Pier 52 Honolulu Harbor. Underwater structural inspection and repair design of concrete piles damages by ship impact. (April '06)

Ford Island Bridge Inspection. Underwater pre-construction inspection and construction quality assurance inspection of structural piles repairs. Pearl Harbor, Hawaii. (March 06' – April '06)

Avon Wharf MOTEMS Inspection. Underwater structural inspection and condition assessment of Avon Wharf in accordance with California State Lands Commission (SLC) Marine Oil Terminal Engineering and Maintenance Standards (MOTEMS). (Feb. '06)

Wharves B10-B14, Pearl Harbor, Hawaii. Pre-construction inspection of concrete piles, pile-caps, beams and slab soffit including detailed documentation of of deficiencies for the preparation of repair design documents. (April '05 – May '05)

Reconstruction of Third Avenue Bridge over Harlem River. Underwater inspection and construction quality assurance of the bridge reconstruction and cable installation. New York City Department of Transportation. (Nov. '04 – April '05)

Blenheim Gilboa – Power Project Underwater Diving Inspection and Professional Services. On-Site P.E. Diver/Team Leader for the underwater inspection of the Crescent and Vischer Ferry Hydroelectric Facilities. New York Power Authority. (Sept. '04 – Jan. '05)

Limited Condition Survey & Assessment of Rip-Rap and Substructures at Various Locations Within the proposed Brooklyn Bridge Park. Underwater pre-construction inspection of Brooklyn Piers 1 through 6 and adjacent relieving platforms, bulkheads, and rip-rap slopes for the redevelopment of waterfront facilities to park usage. (June '04 – Aug '04)

Military Ocean Terminal Bayonne. Underwater structural inspection of Berth S1 including ultrasonic thickness measurements of steel caissons. (May'04 – June '04)

Passaic Valley Sewerage Commission Sludge Loading Dock. Underwater inspection and fathometer survey of ship berthing facility. Passaic Valley Sewerage Commission. (March '04 – April '04)

PANY & NJ Facility Condition Surveys for Waterfront Facilities. On-Site P.E. Diver/Team Leader for the underwater inspection and structural analysis of various waterfront facilities, including the inspection of 3 low-clearance bridges/culverts. Prepared diving inspection reports in accordance with New Jersey Department of Transportation procedures. Port Authority of NY & NJ. (April '04 – May '04)

DELDOT Bridge Diving Inspections. Performed condition surveys of over 30 bridges spanning waterways, including superstructures on low-clearance bridges. Assisted in preparation of reports. Delaware Department of Transportation. (Aug. '96 to Nov. '97)

Indefinite Quantity Term Contract for Underwater Inspection, Condition Assessment and Repair Designs of Navy Facilities at Various Locations, Worldwide. Condition surveys of Fuel Wharf 128 Naval Air Station and Naval Support Activity in New Orleans, Louisiana, Pier Papa Naval Station in Charleston, South Carolina, the Naval Submarine Base in Kings Bay, Georgia, and the Naval Weapons Detachment in Pearl Harbor, Hawaii, under the direction of the U.S. Naval Facilities Engineering Command. Performed underwater inspections, structural assessments, and prepared drawings showing observed deterioration using AutoCAD Version 12 software. (July '95 – Feb. '97)

Port Newark, Port Elizabeth and Brooklyn Piers Marine Borer Investigation. Underwater inspection on Port Newark Berths 2 and 19, Port Elizabeth Berths 50 and 96 and Brooklyn Piers 9A, 9B and 12 to detect the presence of marine borers. (July '96 – Sept. '96)

Conduit Bathymetric Survey at Crescent and Vischer Ferry Projects. Conducted a bathymetric/fathometric survey in the near vicinity of the Crescent and Vischer Ferry Projects on the Mohawk River to determine suitability for high-frequency sonic fish barrier system (June '96 - Sept. '96).

Indefinite Quantity Term Contract for Underwater Inspection, Condition Assessment and Repair Designs of Navy Facilities at Various Locations, Worldwide. Condition surveys of Fuel Wharf 128 Naval Air Station and Naval Support Activity in New Orleans, Louisiana, Pier Papa Naval Station in Charleston, South Carolina, the Naval Submarine Base in Kings Bay, Georgia, and the Naval Weapons Detachment in Pearl Harbor, Hawaii, under the direction of the U.S. Naval Facilities Engineering Command. Performed underwater inspections, structural assessments, and prepared drawings showing observed deterioration using AutoCAD Version 12 software. (July '95 – Feb. '97)

TOTAL YEARS OF EXPERIENCE ON PROJECTS INVOLVING BRIDGE INSPECTIONS **16 years**

COPY COPY COPY COPY

The University of the State of New York
Education Department
Office of the Professions
REGISTRATION CERTIFICATE
Do not accept a copy of this certificate

License Number: 086952-1 Certificate Number: 7770123

POPE JEREMY W.
(Ex. 1)

is registered to practice in New York State through 05/31/2014 as a(n)
PROFESSIONAL ENGINEER

LICENSEE/REGISTRANT

COMMISSIONER OF EDUCATION

EXECUTIVE SECRETARY

DEPUTY COMMISSIONER
FOR THE PROFESSIONS

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New Jersey Office of the Attorney General
Division of Consumer Affairs

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Board of Prof. Engineers & Land Surveyors

HAS LICENSED

Jeremy W. Pope
(Ex. 1)

FOR PRACTICE IN NEW JERSEY AS A(N): Professional Engineer

New Jersey Office of the Attorney General
Division of Consumer Affairs
THIS IS TO CERTIFY THAT THE
Board of Prof. Engineers & Land Surveyors
HAS LICENSED
Jeremy W. Pope
Professional Engineer

03/23/2012 TO 04/30/2014
VALID

SIGNATURE

24GE04488800
License/Registration/Certificate #

DIRECTOR

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IF YOUR LICENSE/REGISTRATION/ CERTIFICATE ID CARD IS LOST PLEASE NOTIFY:
Board of Prof. Engineers & Land Surv
P.O. Box 45015
Newark, NJ 07101

03/23/2012 TO 04/30/2014
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24GE04488800
LICENSE/REGISTRATION/CERTIFICATION #

Signature of Licensee/Registrant/Certificate Holder

DIRECTOR

PLEASE DETACH HERE

U.S. Department Of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

Jeremy W. Pope

has participated in

FHWA-NHI-130055:
Safety Inspection of In-Service Bridges

hosted by

Arora and Associates, P.C.

Date: January 5-16, 2009 *Hours of Instruction:* 60

Location: Harrisburg, PA

Instructor

Local Coordinator

Instructor

Joseph S. Toole, Associate Administrator
Office of Professional and Corporate Development

JW Rufolo's
Institute for Occupational Safety and Health

The Faculty
in recognition of successful completion of
the program of study required by
OSHA 29 CFR 1910.146(g)(4)
hereby confer upon
Jeremy Pope
the Certification of
Confined Space Entry
Given Onsite in the State of New Jersey.

For the Faculty
Joseph W Rufolo
Joseph W Rufolo
President & CEO

SAFETY HEALTH ENVIRONMENTAL IOSH

On this 19th
day of
January, 2012

JW Rufolo and Associates, Inc., Six Moyse Place, Edison, New Jersey 08820 ✆ (908) 757-5972

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that *Jeremy W. Pope* has completed

2011 Bridge Inspection Workshop

Professional Development Hours Awarded: 21.0
This course is accredited for the profession(s) of: Professional Engineering
Course #20110254

Location: Albany, NY
Date: March 28 - April 1, 2011

Michael A. Shannon
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state.

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that *Jeremy Pope* has completed

2011 Bridge Inspectors Meeting: Inspection Refresher

Professional Development Hours Awarded: 8.5
This course is accredited for the profession(s) of: Professional Engineering
Course #20110258

Location: Albany, NY
Date: March 1 & 2, 2011

Michael A. Shannon
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that *Jeremy Pope* has completed

Inspecting Steel Bridges for Fatigue

Professional Development Hours Awarded: 6.0
This course is accredited for the profession(s) of: Professional Engineering
Course #20110257

Location: Albany, NY
Date: March 3, 2011

Michael A. Shamma
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of:
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd. Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state

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State of New York
New York State Department of Transportation

Record of Completion

Jeremy Pope

For the Successful Completion of the Course titled

Methods of Bridge Inspection

Director, Structures Evaluation Services Bureau
Office of Structures

Given at Albany, NY, April 01, 2011

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that *Jeremy Pope* has completed

2009 Bridge Inspectors Meeting

Professional Development Hours Awarded: 8.5
This course is accredited for the profession(s) of: Professional Engineering
Course #20090155

Location: Albany, NY
Date: February 24 & 25, 2009

Michael A. Shannon
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the supervision of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS please contact the licensure board of the state

---

American Academy of Orthopaedic Surgeons

American College of Emergency Physicians
ADVANCING EMERGENCY CARE

This card verifies that

JEREMY POPE

has successfully completed the knowledge and skill evaluations for the Emergency Care and Safety Institute **CPR** course.

January 2010
Completion Date

January 2012
Recommended Renewal Date

LifeSafe Services
Educational Center

Peter Lux
Instructor

Metro-North Railroad

CONTRACT EMPLOYEE CARD

This certifies that Jeremy Pope
has attended the Roadway Worker Procedures for Conductor Flags/Contract Employees Working on Metro-North Property Program.

Date of Training 2/18/10 Sticker # 2185

Valid for one (1) year from date of training

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

Certificate of Training

JEREMY W. POPE

ATTENDED

BASIC COURSE ON BRIDGE SAFETY INSPECTION

SPONSORED BY THE BUREAU OF DESIGN

PRESENTED BY: MICHAEL BAKER JR., INC. COURSE DATE: JANUARY 5-22, 2009

BRIAN G. THOMPSON, P.E.
DIRECTOR, BUREAU OF DESIGN (ACTING)

MARY SHARP
TRAINING DEVELOPMENT
MANAGER

Association of Diving Contractors International

Cert. # 44140

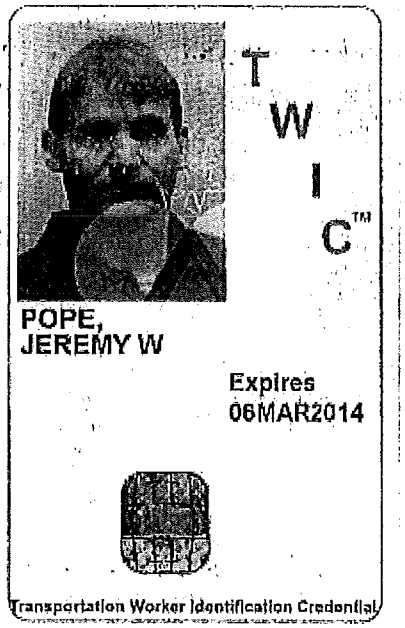
Expires 12/14/2016

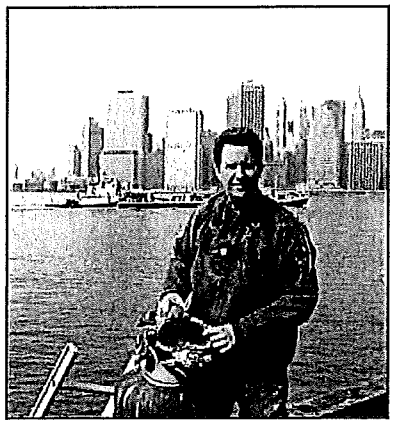
ADC INTERNATIONAL

SURFACE-SUPPLIED AIR DIVING SUPERVISOR

Jeremy Pope I.D. 144-72-5988

Commercial Diver Certification Card





DENNIS P. CASSIDY

Chief Inspector Diver / Assistant Team Leader

EDUCATION

The Ocean Corporation
- Advanced Open Water (NAUI Scuba)
- Commercial Air and Mixed Gas Diving
- Nuclear and Contaminated Environment Diving
- Underwater Welding and Cutting
- Still Photography and Visual Inspection
- Confined Space Entry – OSHA 29 CFR 1910.146 (g) (4)

WELDING CERTIFICATION

American Welding Society Buildings and Bridges (7018 all position)
American Welding Society (AWS)
Certified Welding Inspector (CWI)

DIVING CERTIFICATIONS

- Confined Spaced Entry – OSHA 29 CFR 1910.146 (g) (4)
- Diving Certification No. 0988909196-03
- ADCI (Association of Diving Contractors International) Surface Supplied Air Diving Supervisor I.D. 228, Certification No. 44174
- 40-HourHealth and Safety for Hazardous Waste Site Investigation Personnel

BRIDGE INSPECTION CERTIFICATIONS

- Safety Inspection of In-Service Bridges-FHWA National Highway Institute Certificate of Training - NHI No.13055 (80 hour)
- Underwater Inspection & Repair of Bridges Certification, George Washington University
- 2012 Bridge Inspectors Workshop, New York State Department of Transportation (5-Day Course)
- Bridge Safety Inspection NICET Level III Certification No. 116326

KEY QUALIFICATIONS

Mr. Cassidy is a key staff member of Boswell Underwater Engineering, a division of Boswell Engineering specializing in the investigation and structural evaluation of marine infrastructures. Having worked as a construction and inspection diver for the past 21 years, he has extensive experience in the maintenance, rehabilitation, and inspection of dam structures and submerged structures such as pipelines, canal bulkheads, in-take tunnels, pile supports to piers and wharves, and bridge substructures. He is also skilled in underwater videotape and photographic documentation techniques, ultrasonic thickness gauging, Eddie current and other nondestructive testing (NDT) methods.

He is an expert at identifying and evaluating the extent of biodeterioration caused by marine borer intrusion in submerged timber structures through core sampling techniques. He is also actively engaged in BUE's in-house marine borer research test board program which seeks new ways of controlling marine borer intrusion in timber structures.

Mr. Cassidy has also acquired considerable insight related to marine construction management, having participated on numerous projects as a construction inspection diver and providing guidance to owners regarding the feasibility of repairs and contractor claims prevention. He has also performed condition surveys on more than 390 marine facilities and prepared the associated reports. In addition, he has performed over 530 bridge diving inspections. Altogether, he has logged in excess of 6310 hours underwater on inspection assignments.

RELEVANT EXPERIENCE

PANY&NJ Waterfront Condition Surveys Technical Services (MED & QAD). Team Leader/Inspection Diver on over 314 assignments encompassing 15 contracts involving

condition survey assessments and construction inspection diving of marine structures such as piers, wharves, relieving platforms, bulkheads, intake screens, and sluice gates. Port Authority of NY & NJ. (January '92 - Present).

NYSDOT Regions 1 through 11 Bridge Diving Inspections & Fathometer Surveys. Senior Inspection Diver on 14 contracts involving underwater inspections of 1463 water-spanning bridges (4857 SSU) and fathometer surveys of more than 703 bridges. New York State Department of Transportation. (January '92 - Present).

Reconstruction of Third Avenue Bridge over Harlem River. Underwater inspection and construction quality assurance of the bridge reconstruction and cable installation. New York City Department of Transportation. (November '04 - Present).

Blenheim Gilboa – Power Project Underwater Diving Inspection and Professional Services. On-Site P.E. Diver/Team Leader for the underwater inspection of the Crescent and Vischer Ferry Hydroelectric Facilities. New York Power Authority. (September '04 - January '05).

Brooklyn Bridge Park. Underwater pre-construction inspection of Brooklyn Piers 1 through 6 and adjacent relieving platforms, bulkheads, and rip-rap slopes for the redevelopment of waterfront facilities to park usage. (August '04 - September '04).

Military Ocean Terminal Bayonne. Underwater structural inspection of Berth S1 including ultrasonic thickness measurements of steel caissons. (May '04 - June '04).

Passaic Valley Sewerage Commission Sludge Loading Dock. Underwater inspection and fathometer survey of ship berthing facility. Passaic Valley Sewerage Commission. (March '04 - April '04).

Port Elizabeth, Berths 88 to 98. Diving inspection and construction quality assurance of the bulkhead repairs to Berths 88 through 98 at Port Elizabeth, New Jersey. Port Authority of NY and NJ. (August '96 - December '96).

Ridge Road Culvert Wingwall Foundations. Resident engineering and quality assurance diving inspection services of the repairs to the Ridge Road Culvert Wingwall Foundations to monitor the work of the contractor for conformance with contract bid documents. Rockland County Highway Department. (August '96).

Port Newark, Port Elizabeth and Brooklyn Piers Marine Borer Investigation. Underwater inspection on Port Newark Berths 2 and 19, Port Elizabeth Berths 50 and 96 and Brooklyn Piers 9A, 9B and 12 to detect the presence of marine borers. Port Authority of NY and NJ. (July '96 - September '96).

Pier D Condition Survey. Levels I and II underwater inspection of the outer perimeter of approximately 900 timber support piles on Pier D in Weehawken. Hartz Mountain Industries, Inc. (June '96 - July '96).

New Jersey Port Terminal, Berths 64 and 66. Underwater inspection and construction quality assurance of the restoration of the rip-rap below Berths 64 and 66 at the New Jersey Port Terminal. Port Authority of NY and NJ. (May '96 - August '96).

TOTAL YEARS OF EXPERIENCE

21 years

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

Dennis P. Cassidy

has satisfactorily completed training in

Safety Inspection of In-Service Bridges

conducted by

Baker Engineers

Location: **Austin, Texas**

Hours of Instruction: **80**

Date: **February 5 - 16, 2001**

Continuing Education Units: **6.0**

Paul A. Hoffman
Instructor

Dell Wood
Dell Wood, Manager, Technical Training
TxDOT, Training, Quality and Development Section

Roger Ayele
Director
National Highway Institute

Kenneth R. Wykle
Federal Highway Administrator

American Welding Society

Certifies that Welding Inspector

Dennis P Cassidy

has complied with the requirements of AWS QC1,
Standard for AWS Certification of Welding Inspectors

08120551
CERTIFICATE NUMBER

December 1 2011
EXPIRATION DATE

PRESIDENT AWS

Paul R Evans
CHAIR, QUALIFICATION COMMITTEE

CHAIR, CERTIFICATION COMMITTEE

The Ocean Corporation
Houston, USA

Offshore Oilfield Diver Training

DIPLOMA

COMMERCIAL DIVER
THE OCEAN CORPORATION

This is to certify that

Dennis Cassidy

has successfully completed the prescribed courses in:

Commercial Scuba—Surface-Supplied Air & Mixed Gas Diving Operations & Equipment—Repair & Maintenance of Diving Equipment—Hyperbaric Chamber Operations—Hyperbaric Treatment—Construction Rigging—Offshore Oilfield Diving Operations—Underwater Welding & Cutting—Observation & Lock-out Bell Diving

Given this 27th day of September, 1989

President Les Joiner

JW Rufolo's Institute for Occupational Safety and Health

The Faculty
in recognition of successful completion of
the program of study required by
OSHA 29 CFR 1910.146(g)(4)
hereby confer upon
Dennis Cassidy
the Certification of
Confined Space Entry
Given Onsite in the State of New Jersey.

For the Faculty
Joseph W Rufolo
Joseph W Rufolo
President & CEO

On this 19th
day of
January, 2000

JW Rufolo and Associates, Inc., Six Moyse Place, Edison, New Jersey 08820 ✆ (908) 767-5072

New Jersey / New York Hazardous Materials Worker Training Center

Partially supported by the National Institute of Environmental Health Sciences and the National Institute for Occupational Safety and Health

This is to certify that

Dennis P. Cassidy

Certificate #UMD1 03520

has successfully completed the course entitled

Health and Safety for Hazardous Waste Site Personnel

In Accordance With 29 CFR 1910.120(e)(3)(i)
40 Hr (3.65 CEU's for 40 contact hrs)
conducted by the
Office of Public Health Practice
UMDNJ - School of Public Health
in collaboration with the Environmental & Occupational Health Sciences

UMDNJ SCHOOL OF PUBLIC HEALTH

Andrey R. Gotsch, DrPH
Center Director

January 5-9, 2009

Training Renewal Date: January 9, 2010

John M. Malook MS
Course Director

New Jersey / New York Hazardous Materials Worker Training Center

Partially supported by the National Institute of Environmental Health Sciences and the National Institute for Occupational Safety and Health

This is to certify that

Dennis P. Cassidy

Certificate #UMD3 11050

has successfully completed the course entitled

Annual Refresher on Health and Safety for Hazardous Waste Site Investigation Personnel

8 Hours (0.8 CEU's)
In Accordance With 29CFR1910.120(e)(8)
by the Office of Public Health Practice
UMDNJ- School of Public Health
in collaboration with the Environmental and Occupational Health Sciences Institute

UMDNJ SCHOOL OF PUBLIC HEALTH

Audrey R. Gotsch, DrPH
Center Director

January 29, 2010
Training Renewal Date: January 29, 2011

John Malool, MS
Course Director

American Academy of Orthopaedic Surgeons

American College of Emergency Physicians
ADVANCING EMERGENCY CARE

This card verifies that Dennis Cassidy has successfully completed the knowledge and skill evaluations for the Emergency Care and Safety Institute CPR course.

January 2010
Completion Date

January 2012
Recommended Renewal Date

LifeSafe Services
Educational Center

Peter Lux
Instructor

Metro-North Railroad

CONTRACT EMPLOYEE CARD

This certifies that Dennis Cassidy has attended the Roadway Worker Procedures for Conductor Flags/Contract Employees Working on Metro-North Property Program.

Date of Training 2/18/10 Sticker # 2182

Valid for one (1) year from date of training

NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES®

HEREBY CERTIFIES THAT

Dennis P Cassidy

HAS ATTAINED THE GRADE OF

LEVEL I

IN TRANSPORTATION ENGINEERING TECHNOLOGY
BRIDGE SAFETY INSPECTION

AND RECOGNIZES THAT THROUGH EDUCATION, EXPERIENCE, AND KNOWLEDGE THIS PERSON HAS MET THE STANDARDS SET FORTH BY THIS INSTITUTE

Certification Valid through April 1, 2012

CERTIFICATION NUMBER 116326

James H Wathen

CHAIRMAN OF THE BOARD OF GOVERNORS, NICET

NICET®

SPONSORED BY THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Association of Diving Contractors International

Cert. # 44174

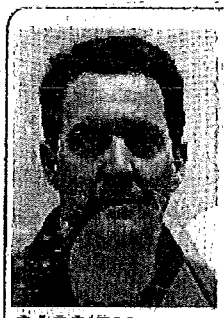
Expires 12/21/2016

ADC INTERNATIONAL

SURFACE-SUPPLIED AIR DIVING SUPERVISOR

Dennis P. Cassidy I.D. 228

Commercial Diver Certification Card



TWIC™

CASSIDY,
DENNIS P

Expires
02MAR2014

Transportation Worker Identification Credential

PAUL DOMBROWSKI
Senior Inspector Diver / Assistant Team Leader

EDUCATION

Bachelor of Science in Geological Science, Rutgers University

DIVING CERTIFICATIONS

- NASDS Certified Open Water Diver
- Professional Diving School of New York, Certified Commercial Diver
- Professional Diving School of New York, North Sea Certification Program
- Remotely Operated Vehicle Training Center, Certified ROW Pile/Technician
- Confined Space Entry – OSHA 29 CFR 1910.146 (g) (4)
- OSHA 40-Hour Haz-Mat Certification
- ADCI (Association of Diving Contractors International) Surface-Supplied Air Diver I.D. 230, Certification No. 15183

KEY QUALIFICATIONS

Mr. Dombrowski has extensive underwater experience in all phases of commercial diving and is a seasoned inspector of dam structures, marine facilities and bridge substructures, having performed condition surveys on over 280 marine structures and more than 360 bridges spanning waterways. He is proficient in surface-supplied hard hat diving techniques, as well as mixed gas bell diving, logging over 6060 hours on underwater assignments. In addition to construction and oilfield experience, he is skilled in underwater videographic and photographic techniques, as well as in the use of various destructive and non-destructive testing methods for assessing the integrity of structural elements consisting of timber, steel, and concrete.

BRIDGE INSPECTION CERTIFICATIONS

- Safety Inspection of In-Service Bridges – FHWA National Highway Certificate of Training (80 Hour Course; 2008)
- 2005 Bridge Inspection Workshop, New York State Department of Transportation (20 hrs)
- 2005 Annual Bridge Inspector's Training, New York State Department of Transportation (5.5 hrs.)
- Bridge Safety Inspection NICET Level III Certification

RELEVANT EXPERIENCE

PANY & NJ Waterfront Condition Surveys Technical Services on Call-In Basis (MED & QAD). Inspection Diver on more than 220 assignments involving underwater quality assurance inspections of various types of marine structures such as piers, wharves, bulkheads, and relieving platforms undergoing repair. Underwater condition assessments of various waterfront facilities were also conducted. Port Authority of NY & NJ. (March '97 – Present).

NYSDOT Regions 1 through 11 Bridge Diving Inspections & Fathometer Surveys. Inspection Diver on 9 contracts involving underwater inspections of over 700 water-spanning bridges. New York State Department of Transportation. (May '97 - Present).

James Fitzpatrick Nuclear Power Plant – Installation and Service of Fish Deterrent System. Inspection Diver. Entergy Nuclear Operations, Inc. (April '04 – August '05).

NYPA Niagara Power Station, Niagara River. Performed underwater inspection and detailed measurements of trash rack system with full video documentation utilizing surface supplied diving techniques. Also performed as a decompression technician. New York Power Authority. (2005)

Third Avenue Bridge over Harlem River. Inspection Diver conducting underwater inspection and construction quality assurance of the bridge reconstruction and cable installation. New York City Department of Transportation. (2006).

Madison Avenue Bridge over Harlem River. Inspection Diver conducting underwater inspection and construction quality assurance of the bridge reconstruction and cable installation. New York City Department of Transportation. (2005).

MTA Metro-North Bridge Inspections. Inspection Diver on project involving the underwater inspection of 26 railroad bridges. Metropolitan Transportation Authority. (January '98 - February '98).

NYSBA Underwater Bridge Pier Inspections. Performed underwater inspections on five (5) bridges spanning the Hudson River (36 SSU) – Newburgh-Beacon Bridges, Mid-Hudson Bridge, Kingston-Rhinecliff Bridge, and Rip Van Winkle Bridge. New York State Bridge Authority. (April '97 - May '97).

Passaic Valley Sewerage Authority Pipeline Construction. Quality assurance diving inspection during construction of sewage transfer pipeline, Newark Bay, New Jersey. Inspected contractor's workmanship to insure compliance with and adherence to project specifications, including installation of pipe sections, mating of flanges, grouting, excavations, backfill, and placement of rip-rap. (December '87- October '88).

Pile Inspection, Howland Hook Marine Terminal. Underwater inspection of pile integrity and condition at the Marine Terminal (November '87).

Salvage of White Star Ocean Lines, "Republic". Surface air diver, decompression technician, ROV pilot on the salvage project off Nantucket, Mass. in 250 feet of water. (June '87 - August '87).

Inspection of Damaged Communications Cable. Damage assessment to AT & T Trans-Atlantic cable off of Sandy Hook, New Jersey. (April '87).

Diving Support of Exploratory Drilling. Mixed gas, bell saturation diver, decompression technician on the exploratory driller vessel, "Neddrill II", Maccae, Brazil. Responsible for placement and maintenance of all underwater equipment in 275 feet of water. December '85 -July '86).

Field Test of U.S. Navy Tracking System. Surface supplied air diver, ROV pilot/technician, submersible support/technician on field tests of U.S. Navy submarine tracking system, Gulf of Mexico, Florida. (October '85 -November '85).

Geophysical Investigation of Drilling Operation. Surface supplied air diver involved in the placement and retrieval of pneumatic guns and acoustical array used to locate the position of drill string and stratigraphic horizons for Shell Oil Co., Gulf of Mexico, Texas. (August '85).

Shell Oil Pipeline Construction Inspection. ROV pilot/technician on the construction of high pressure gas pipeline, Long Beach, California. Conducted around the clock video inspection of construction activity as well as placement of survey markers on pile sections using remotely operated vehicles. (June '85 - July '85).

TOTAL YEARS OF EXPERIENCE

16 years

U.S. Department Of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

Paul Dombrowski

has participated in

Safety Inspection of In - Service Bridges

hosted by

Minnesota Department of Transportation

Date: March 10 - 21, 2008

Hours of Instruction: 60 PDH hours awarded

Location: Mn/DOT Training & Conference Center

John Wackerly
Instructor

Sandy Sewatius
Local Coordinator

Thomas M. Ryan
Instructor

Joseph S. Toole, Associate Administrator
Office of Professional and Corporate Development

NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES®

HEREBY CERTIFIES THAT

Paul W Dombrowski

HAS ATTAINED THE GRADE OF

LEVEL I

IN TRANSPORTATION ENGINEERING TECHNOLOGY
BRIDGE SAFETY INSPECTION

AND RECOGNIZES THAT THROUGH EDUCATION, EXPERIENCE, AND KNOWLEDGE THIS PERSON HAS MET THE STANDARDS SET FORTH BY THIS INSTITUTE

Certification Valid through April 1, 2012

CERTIFICATION NUMBER 116332

James H Wathen

CHAIRMAN OF THE BOARD OF GOVERNORS, NICET.

NICET®

SPONSORED BY THE NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

New Jersey / New York Hazardous Materials Worker Training Center

Partially supported by the National Institute of Environmental Health Sciences and the National Institute for Occupational Safety and Health

This is to certify that

Paul W. Dombrowski

Certificate #UMD1 03521

has successfully completed the course entitled

Health and Safety for Hazardous Waste Site Personnel

In Accordance With 29 CFR1910.120(e)(3)(i)
40 Hr (3.65 CEU's for 40 contact hrs)
conducted by the
Office of Public Health Practice
UMDNJ - School of Public Health
in collaboration with the Environmental & Occupational Health Scien

UMDNJ SCHOOL OF PUBLIC HEALTH

Audrey R. Gotsch, DrPH
Center Director

January 5-9, 2009

Training Renewal Date: January 9, 2010

John M. Maloof, MS
Course Director

New Jersey / New York Hazardous Materials Worker Training Center

Partially supported by the National Institute of Environmental Health Sciences and the National Institute for Occupational Safety and Health

This is to certify that

Paul W. Dombrowski

Certificate #UMD3 11052

has successfully completed the course entitled

Annual Refresher on Health and Safety for Hazardous Waste Site Investigation Personnel

8 Hours (0.8 CEU's)
In Accordance With 29CFR1910.120(e)(8)
by the Office of Public Health Practice
UMDNJ- School of Public Health
in collaboration with the Environmental and Occupational Health Sciences Institute

UMDNJ SCHOOL OF PUBLIC HEALTH

Audrey R. Gotsch, DrPH
Center Director

January 29, 2010

Training Renewal Date: January 29, 2011

John M. Maloof, MS
Course Director

New York State
Department of Transportation

PIE Organization#SM000007

CERTIFICATE OF COURSE COMPLETION

This certifies that *Paul Dombrowski* has completed

2005 BRIDGE INSPECTION WORKSHOP

Total # of PDH for course: 20

Date: 03/29/05-04/01/2005

Louis P DeSol
Director, OHR Management

Michael A Shannon
PIE, President

Course #20050034

Professional Diving School of New York

Licensed by the New York State Education Department.

Certificate of Completion

This certifies that

PAUL DOMBROWSKI

has satisfactorily completed a 80 hour course of study and is qualified as a

NORTH SEA AIR DIVER

He is therefore awarded this Certificate in testimony whereof the signatures of the President and Director are hereunto subscribed this 23RD day of DECEMBER, 1983.

André Galorne
President

Glenn Butler
Director

Underwater Vehicle Training Center

Licensed by the Texas Education Agency

Certificate of Completion

This certifies that

PAUL DOMBROWSKI

has satisfactorily completed a 320 hour course of study and is qualified as a

Remotely Operated Vehicle Pilot/Technician

and is therefore awarded this Certificate in testimony whereof the signatures of the Executive and Training Directors are hereunto subscribed this 20th day of September, 19 85.

Executive Director — Training Director

International Underwater Contractors, Inc.

AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING

ASNT

This is to certify that

Paul Dombrowski

Attended the Educational Program

on the subject of

MAGNETIC PARTICLE INSPECTION (ASNT LEVEL I)

Presented by THE PROFESSIONAL DIVING SCHOOL OF NEW YORK

Given this 5th **day of** DECEMBER, 1983

SECTION CHAIRMAN — EDUCATIONAL CHAIRMAN

Metro-North Railroad

CONTRACT EMPLOYEE CARD

This certifies that Paul Dombrowski has attended the Roadway Worker Procedures for Conductor Flags/Contract Employees Working on Metro-North Property Program.

Date of Training 2/18/10 Sticker # 2180

Valid for one (1) year from date of training

Association of Diving Contractors International

Cert. # 15183

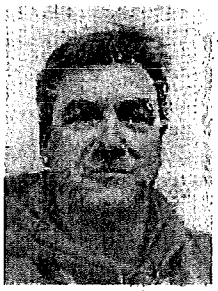
Expires 06/28/2016

ADC

SURFACE-SUPPLIED AIR DIVER

Paul Dombrowski I.D. 230

Commercial Diver Certification Card



TWIC™

DOMBROWSKI,
PAUL W

Expires
06MAR2014

Transportation Worker Identification Credential

MARCO A. GIACCHI

Senior Inspector Diver / Assistant Team Leader / Fathometer Surveyor / CADD Manager

EDUCATION

Bergen Community College, Associate of Science
- Technical Engineering / Drafting and Design

CADD CERTIFICATIONS

Intergraph Solutions for MicroStation (Version J)
Land Development Desktop R2 AutoCadd (Civil 3D 2006)

DIVING CERTIFICATIONS

- NAUI – Advanced Open Water Diver
- BUE On-The-Job Training in Underwater Inspection of Bridges
- Confined Space Entry – OSHA 29 CFR 1910.146 (g) (4)
- OSHA - Construction Safety (10 hour)
- ADCI (Association of Diving Contractors International) Entry Level Tender/Diver I.D. 196, Certification No. 15185

BRIDGE INSPECTION CERTIFICATIONS

- Safety Inspection of In-Service Bridges Course - FHWA National Highway Institute Certificate of Training - NHI No.13055 (80 hour)
- Bridge Safety Inspection NICET Level III Certification

KEY QUALIFICATIONS

Mr. Giacchi is a key staff member of Boswell Underwater Engineering, a division of Boswell Engineering specializing in the investigation and structural evaluation of marine infrastructures. He has gained extensive experience performing commercial diving techniques logging over 2570 hours underwater on inspections, condition surveys and fathometer surveys on a wide array of marine structures, including bridges spanning waterways and waterfront facilities, such as piers, wharves, bulkheads, and relieving platforms. He is also skilled in analyzing information associated with underwater bridge inspections, including PONTIS assessments of low–clearance structures requiring full inspections. He is proficient in preparing reports and drawings utilizing AutoCADD and Microstation, and in performing fathometer surveys based on hydrographic positioning techniques.

RELEVANT EXPERIENCE

*Projects on which **Marco Giacchi** has served as **Team Leader, Inspector Diver** and or **CADD Manager** include:*

PANY&NJ Waterfront Condition Surveys Technical Services on a Call-In Basis (Med & QAD). Team Leader/ Inspector diver and Fathometer Surveyor on over 270 assignments including repair designs and/or recommendations for rehabilitation, of various types of marine structures including piers, wharves, relieving platforms, bulkheads, intake screens, sluice gates, and outfall pipelines. Also performed several pre-and-post dredging and rip-rap placement fathometer surveys to determine re-profiled bottom contours and quantities removed or installed, including the preparation of reports and drawings. Port Authority of NY & NJ.

NYSDOT Regions 1 through 11 Bridge Diving Inspections & Fathometer Surveys. Underwater inspections and fathometric surveys of over 600 bridges spanning waterways. Also prepared in excess of 60 CADD-generated contour maps of waterway bottoms. New

York State Department of Transportation.

World Trade Center Emergency Response - September 11, 2001, Manhattan, NY; Performed an environmental investigation of the two (2) Port Authority Trans-Hudson (PATH) tunnels connecting Exchange Place Station in Jersey City, New Jersey to the World Trade Center (WTC) in New York City, New York. The project was designed to investigate the tunnels for various contaminants including PCBs released from the WTC electrical transformers, petroleum hydrocarbons from the building's ruptured underground storage tanks (USTs), pollutants that may have washed into the tunnels by both the fire fighting and dust suppression efforts at Ground Zero, and biological agents from mold and bacterial growth within the tunnels.

DelDOT Bridge Diving Inspections. Inspector diver on project involving condition surveys of bridges spanning waterways, including superstructures on low-clearance structures, in conformance with NBIS Standards and PONTIS Bridge Management System; physically inspected 75 bridges (172 SSU) and assisted in preparation of reports. Delaware Department of Transportation.

ConnDOT Underwater Bridge Inspection Program. Inspector Diver and CADD Manager on project involving routine (Level 1 & 2) inspections and PONTIS assessments of 393 bridges spanning waterways within the State of Connecticut. Also coordinated and prepared reports, including analyzing scour, undermining, erosion and settlement of the channel bottoms with superstructure and substructure element deficiencies. Also included PONTIS, BRI 18, 19 and 39 type in-depth inspections. ConnDOT.

Passaic Valley Sewerage Commission Sludge Loading Dock. Underwater inspection and fathometer survey of ship berthing facility. Passaic Valley Sewerage Commission.

Military Ocean Terminal Bayonne. Underwater structural inspection of Berth S1 including ultrasonic thickness measurements of steel caissons.

Third Avenue Bridge over Harlem River. Underwater inspection and construction quality assurance of the bridge reconstruction and cable installation. New York City Department of Transportation.

BICC Cables - Dock Facility North and West of Building No. 8 Hudson River Stage, Point Street Facility, Yonkers, New York Inspector Diver for the Rehabilitation and Design Concept of the entire dock facility connecting Building No. 19 with the Hudson River Stage Building (EPRI Lab). Applied for permit allocation for rehabilitation of the dock facility. Work was performed in 2001.

LGA UT Program. Inspector Diver conducting underwater condition survey of steel pipe piles supporting runways at LaGuardia Airport utilizing ultrasounding equipment with an oscilloscope in measuring wall thickness. Port Authority of NY & NJ.

NYPA On-Call Engineering & Diving Services All Facilities. Inspector Diver performing the first diving inspection of the trash rack guides, stop log guides, heat gate guides and draft tube at the Robert Moses Power Plant on the Niagara River.

Holland Tunnel Air Ventilation Buildings on the Hudson River. High pressure water blasting used for removing marine growth prior to conducting condition survey. Underwater inspection using photographic and videotape documentation. Port Authority of NY & NJ.

Lincoln Tunnel Air Ventilation Buildings on the Hudson River. Conducting condition survey with an Underwater inspection of the rehabilitation. Port Authority of NY & NJ.

TOTAL YEARS OF EXPERIENCE **12 years**

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute
Certificate of Training

MARCO A. GIACCHI

has satisfactorily completed training in

SAFETY INSPECTION OF IN-SERVICE BRIDGES

conducted by

BAKER ENGINEERS

Location: NEWINGTON, CT.

Date: JANUARY 24 - FEBRUARY 4, 2000

Hours of instruction: 60

Continuing Education Units: 6.0

Instructor

Coordinator

Director
National Highway Institute

Federal Highway Administrator

JW Rufolo's
Institute for Occupational Safety and Health

The Faculty
in recognition of successful completion of
the program of study required by
OSHA 29 CFR 1910.146(g)(4)
hereby confer upon
Marco A. Giacchi
the Certification of
Confined Space Entry
Given Onsite in the State of New Jersey.

For the Faculty
Joseph W Rufolo
Joseph W Rufolo
President & CEO

On this 19th
day of
January, 2000

JW Rufolo and Associates, Inc., Six Moyse Place, Edison, New Jersey 08820 ✆ (908) 757-5972

TRACY McMAHON
Inspector Diver / Assistant Fathometer Surveyor

EDUCATION

Jackson Memorial High School
Divers Academy of Eastern Seaboard (DAES)

KEY QUALIFICATIONS

Mr. McMahon is a key staff member of Boswell Underwater Engineering, a division of Boswell Engineering specializing in the investigation and structural evaluation of marine infrastructures. He has gained extensive experience performing underwater condition surveys on a wide array structures, including bridges spanning waterways and waterfront facilities, such as piers, wharfs, bulkheads, and relieving platforms. He is also proficient in performing fathometric surveys based on hydrographic positioning techniques utilizing range-azimuth and GPS systems. To date, he has logged over 5230 hours underwater on inspection assignments.

DIVING CERTIFICATIONS

- NAUI Certified Advanced Open Water Diver
- BUE On-The-Job Training in Underwater Inspection of Bridges
- Confined Space Entry – OSHA 29 CFR 1910.146(g)(4)
- ADCI Surface-Supplied Air Diver I.D. 624, Certification #15184
- Safety Inspection of In-Service Bridges – FHWA National Highway Certificate of Training (60 Hours Course, 2011)

BRIDGE INSPECTION CERTIFICATIONS

- Safety Inspection for In-Service Bridges - FHWA National Highway Institute Certificate of Training (60 hrs, 2011)
- 2012 NYSDOT Bridge Inspection Workshop (5-day course)

RELATIVE EXPERIENCE

PANY & NJ Waterfront Condition Surveys Technical Services on a Call-In-Basis (MED & QAD). Inspector diver and fathometric surveyor on over 80 assignments involving underwater quality assurance inspections on waterfront facilities undergoing repairs, and condition survey assessments, including repair designs and/or recommendations for rehabilitation, of various types of marine structures including piers, wharfs, relieving platforms and bulkheads, intake screens, and sluice gates. Port Authority of NY & NJ. (May '03 - Present).

NYSDOT Bridge Diving Inspection and Fathometer Surveys, Regions 1 through 11. (NYSDOT Contract Nos. D015139, D015236, D015361, D015537, D030531, D030586, and D030917)). Inspector Diver and Assistant Fathometer Surveyor. Performed underwater inspections on over 310 water-spanning bridges and over 100 fathometer surveys throughout New York State. New York State Department of Transportation. (August '03 – Present).

ConnDOT Railroad Bridge Diving Inspections. Inspector Diver on bridge diving inspection project involving underwater condition surveys of 13 railroad bridges (34 SSU) owned by the Connecticut Department of Transportation. Boswell acted as subconsultant to Purcell Associates. (January '09 – September '10).

New York State Thruway Authority 2006-2007 Biennial Bridge Inspection. Assistant fathometer surveyor on fathometer surveys of two Region 11 bridges. Wilbur Smith Associates/NYSTA. (May - June '07).

J.F. Creamer. Performed construction and rehabilitation of various land and waterway bridges, pile driving, sheeting, pile caps, bulkheads, and design and building of forms for reinforced concrete. (May '02 - April '03, Tom Taylor (201) 247-7572).

Simpson & Brown. Performed pier rehabilitation in Port Elizabeth and Brooklyn Piers. Created material list and the design and building of forms and fiber jackets for reinforcing concrete. (October 01 - March' 02, John Nastasi (732) 245-2431).

Dive Masters. Cablecrossing inspection off Cape May. (April' 01).

Atlantic Subsea. Pump inspection and dredging at Salem Nuclear Power Plant. (March '01, Tim Tonneson (732) 996-8913).

In Depth Marine Construction. Performed rehabilitation of bridges, piers, piles, pile caps, decks, and bulkheads. Created material list and schedule for tasks to be performed. Dredging was performed to reveal areas in need of reconstruction. Concrete block mat was used as shoring around pier and abutment footings to repair scouring. Design and building of forms and fiber jackets for reinforced concrete to restore structural support to various piers and bridges. Projects include repairs to Cape May Coast Guard Station, Newark Bay Extension, Schukyll River bridges, Bass River bridge pile removal, and various waterfront projects in Philadelphia, Hamden, CT, Atlantic City, and Trenton. (March '99 - April '01, Bob Daullary).

Under Water Logistics. Traveling water screen and trash rack inspection and cleaning, and pump inspections at GPU power plant in Trenton. (December '98).

Crest Engineering. Land surveyor on various heavy construction projects including land and waterway bridges. Performed coordination of tasks to be completed, project layout, condition surveys, and reports. (May '96 - October '98, Kevin John Schnorrbusch (908) 415-3442).

TOTAL YEARS OF EXPERIENCE

13 years

U.S. Department Of Transportation
Federal Highway Administration

National Highway Institute

NATIONAL HIGHWAY INSTITUTE

Certificate of Training

TRACY McMAHON

has participated in

FHWA-NHI-130055 Safety Inspection of In-Service Bridges

hosted by

Boston Society of Civil Engineers with Massachusetts Department of Transportation

Date: *May 02-13, 2011* *Hours of Instruction:* 60

Location: *Boston, MA*

Instructor

Instructor

Local Coordinator

Richard Barnaby, Director
National Highway Institute

JW Rufolo's
Institute for Occupational Safety and Health

The Faculty
in recognition of successful completion of
the program of study required by
OSHA 29 CFR 1910.146(g)(4)
hereby confer upon
Tracy McMahon
the Certification of
Confined Space Entry
Given Onsite in the State of New Jersey.

For the Faculty
Joseph W Rufolo
Joseph W Rufolo
President & CEO

SAFETY HEALTH ENVIRONMENTAL IOSH

On this 19th
day of
January, 2012

JW Rufolo and Associates, Inc., Six Moyse Place, Edison, New Jersey 08820 ✆ (908) 757-5972

Association of Diving Contractors International

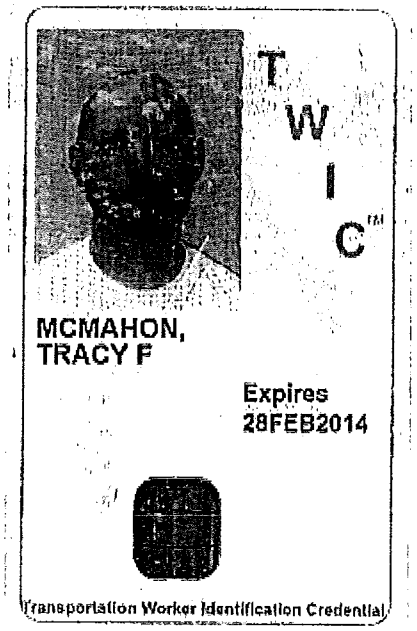
Cert. # 15184

Expires 06/28/2016

SURFACE-SUPPLIED AIR DIVER

Tracy McMahon I.D. 624

Commercial Diver Certification Card



HOI LEUNG
Engineer Diver

EDUCATION:

Bachelor of Science (Honors Science & Business), University of Waterloo, Canada

DIVING CERTIFICATIONS

- Commercial Deep-Sea Diving Certificate - Divers Academy of the Eastern Seaboard
- BUE On-The-Job Training in Commercial Hard Hat Diving Techniques
- PADI Certified Open Water Scuba Diving Instructor
- Confined Space Entry – OSHA 29 CFR 1910.146(g)(4)
- ADCI Surface-Supplied Air Diver Certification #16229

KEY QUALIFICATIONS:

Mr. Leung is a key staff member of Boswell Underwater Engineering, a division of Boswell Engineering specializing in the investigation and structural evaluation of marine infrastructures. He is proficient in both underwater videographic and photographic documentation techniques. In addition, he is skilled in blackwater tactile surveys and has accrued considerable experience in the use of ultrasonic non-destructive testing equipment in evaluating the integrity of structural elements. He is also skilled in underwater construction techniques, including welding and cutting. To date, Mr. Leung has physically performed underwater inspections on more than 184 bridges spanning waterways and on more than 20 waterfront facilities. In addition, he has been involved in performing fathometer surveys of more than 100 water-spanning bridges using electronic range-azimuth, differential GPS, and EDM equipment. He is also proficient in the use of AutoCAD (Version 14) and Microstation '95 computer software for preparing condition survey drawings, design of marine structures, and contour maps of waterway bottoms.

RELEVANT EXPERIENCE:

Mr. Leung has functioned in the capacity of **engineer diver, lead diver, assistant fathometer surveyor, and fathometer surveyor** on the following projects:

NYSDOT Regions 1 through 11 Bridge Diving Inspections and Fathometer Surveys. Inspection diver and assistant fathometer surveyor on two concurrent contracts involving underwater inspections of 330 water-spanning bridges. Performed underwater inspections and operated electronic range-azimuth system during fathometer surveys; prepared contour drawings of waterway bottoms to assess developing scour in vicinity of bridge footings, including comparisons with previous surveys. Also participated in hydraulic scour study involving BIN folder research to assess pile tip elevations in relation to changing waterway bottom profiles over time. New York State Department of Transportation. Apr '98 – Dec '98,' Apr '99 – Nov '99; Aug '03 - Present.

PANY & NJ Waterfront Condition Surveys Technical Services on Call-In Basis. Inspection diver and fathometer surveyor on more than 20 assignments involving underwater quality assurance inspections, condition surveys, and pre-and-post construction fathometer surveys, of various types of marine structures such as piers, wharves, bulkheads, and relieving platforms undergoing repair. Nov '97 – Mar '98; Jan '99 – Mar '99.

NYSDOT Regions 3, 4, 5, 6, 10 & 11 Bridge Diving Inspections. Inspection diver and assistant fathometer surveyor on two concurrent contracts involving underwater inspections and fathometer surveys of 288 water-spanning bridges. Performed underwater inspections and operated electronic range-azimuth

system during fathometer surveys; prepared contour drawings, including comparison with previous surveys. New York State Department of Transportation. May '97 – Nov '97.

Inspection of the Mobile Arctic Caisson "Molikpaq for Beaudril in the Beaufort Sea. Visual and video survey as well as thickness readings of the outer hull and interior ballast tanks. May '97.

Inspection of Pump Hose equipment and impellers for Suncor in Alberta. Visual inspection and documentation of condition of intake pumps. Replacement of stainless steel screens of pump structure and construction quality assurance. May '97.

Construction and Inspection of pipeline in Kootenay Lake for the town of Kaslo in British Columbia. Construction of and subsequent video inspection of pipeline that went to a depth of 120'. Also performed bathymetric survey of pipe profile. April '97.

Construction and Inspection of pipeline for PCL Construction in the North Sakatchewan River in Alberta. Installation of 54" concrete and steel pipe and subsequent video inspection of exterior surface of the pipe including a 300' penetration and survey of the pipeline interior. Also performed pre-and-post excavation bathymetric surveys to assess re-profiled pipe cover and backfill quantities. Feb '97 - March '97.

Video inspection and fathometer survey of the Brazeau Dam for TransAlta in Alberta. Feb '97.

Video inspection and fathometer survey of the Shell Waterfront dam in Alberta. Jan '97.

Repairs and video inspection of effluent pipeline for Weldwood in Alberta. Oct '96- Dec '96.

Bridge Inspections for Arkansas Highway Dept. Visual inspection with photographic documentation of sixteen bridges, both steel and concrete. Also performed fathometric surveys to assess scour trends. Aug '96-Sept '96

Rockland County, Lake DeFores/Ridge Road, NY. Diving inspection and construction quality assurance of scour protection project. Aug '96.

Underwater survey at Ashokan Reservoir, NY. Diving inspection and construction quality assurance for scour protection project. Aug '96.

Underwater inspection, conditions assessment and repair designs of Navy Facilities. Naval Trident Submarine Base at King's Bay, Georgia under the direction of the U.S. Naval Facilities Engineering Command. July '96.

In-lieu of dry-dock inspection for Atlantic class container vessels. Video inspection of hull, running gear and sea chests of five vessels for Sealand in various locations including Port of Baltimore and Boston Harbor. May '96-July '96.

Inspection of 20" Force Main under the Passaic River. Damage assessment to 20.0" low-pressure cast iron pipeline crossing the Passaic River. Gerald Gardner Associates/Fairlawn Industries. June '95.

United States Coast Guard Station. Underwater inspection, condition assessment, fathometric survey, and repair designs of steel bulkhead and pier facilities located at the Hoboken USCG Station. March '95 - May '95.

TOTAL YEARS OF EXPERIENCE:

12 years

JAMIE FARALDI

Inspector Diver / Assistant Team Leader / Fathometric Surveyor

EDUCATION

Graduated Dec. 2006
Bachelor of Arts in Physics, Rutgers University, New Jersey

2000-2001
Studied Mechanical Engineering, Stevens Institute of Technology, New Jersey

DIVING CERTIFICATIONS

- PADI Certified Open Water Diver
- NAUI Certified Advanced Open Water Diver
- BUE On-The-Job Training in Commercial Hard Hat Diving Techniques
- Confined Space Entry – OSHA 29 CFR 1910.146(g)(4)
- ADCI Surface-Supplied Air Diver Certification #40176

BRIDGE INSPECTION CERTIFICATIONS

- Safety Inspection of In-Service Bridges – FHWA National Highway Certificate of Training (80 Hour Course; 2008)
- 2009 Bridge Inspection Workshop, New York State Department of Transportation (5-Day Course)

KEY QUALIFICATIONS

Mr. Faraldi is a key staff member of Boswell Underwater Engineering, a division of Boswell Engineering specializing in the investigation and structural evaluation of marine infrastructures. He has gained his experience performing underwater condition surveys and fathometer surveys on a wide array of marine structures, including bridges spanning waterways and waterfront facilities, such as piers, wharves, bulkheads, and relieving platforms. He is also skilled in analyzing information associated with underwater bridge inspections. Altogether he has logged over 360 hours underwater on inspection assignments including inspection of the submerged components of piers and waterfront structures. In addition, he has performed over 120 fathometric surveys associated with bridge scour assessments and is proficient in preparing reports and drawings utilizing Autodesk Land Desktop 2006, and in preparing fathometric survey contour drawings based on hydrographic positioning techniques. Skilled in side scan sonar imaging of bridge substructures and waterfront facilities.

RELEVANT EXPERIENCE

Boswell Underwater Engineering

*Mr. Faraldi has functioned in the capacity of **Fathometric Surveyor, Inspector Diver, and CAD Operator** on the following projects:*

PANY&NJ Waterfront Condition Surveys Technical Services on a Call-In Basis (QAD & MED). Fathometric Surveyor and Diver on 26 assignments involving underwater quality assurance inspections of waterfront facilities undergoing repairs, and condition survey assessments of various types of marine structures including piers, wharves, relieving platforms, and bulkheads. Port Authority of NY & NJ. (June '07 - Present).

ConnDOT Railroad Bridge Diving Inspections. Inspector Diver on bridge diving inspection project involving underwater condition surveys of 13 railroad bridges (34 SSU) owned by the Connecticut Department of Transportation. Boswell acted as subconsultant to Purcell Associates. (January '09 – September '10).

NYSDOT Bridge Diving Inspections & Fathometric Surveys, Regions 1, 2, 7, 8, 9, 10 & 11. Performed over 120 fathometer surveys of bridges spanning waterways utilizing Electronic Range-Azimuth and Differential Global Positioning Systems in conjunction with dual frequency hydrographic survey equipment to assess changing waterway scour patterns adjacent to bridge footings. Also prepared in excess of 140 CADD-generated contour maps of waterway bottoms using AutoCAD 2000. New York State Department of Transportation. (June '07 – Dec. '07; May '08 – Dec. '08; May '09 – Nov. '09; May '10 – Jan. '11).

DELDOT Bridge Fathometric Surveys. Performed the fathometric survey on the Indian River Inlet bridge and 10 other bridges utilizing Electronic Range-Azimuth and Differential Global Positioning Systems in conjunction with dual frequency hydrographic survey equipment to assess changing waterway scour patterns adjacent to bridge footings. Also prepared CADD-generated contour maps of waterway bottoms using AutoCAD 2006 for several other projects. Delaware Department of Transportation. (June '07 – November '07).

Hartz Mountain Piers C and D. Functioned as Fathometer Surveyor/Diver/CAD Operator for the inspection and rehabilitation of existing structures in Weehawken, New Jersey. (December '07 - February '08).

New Jersey Water Supply Authority. Functioned as the CAD Operator for the preparation of fathometric and graphic representations of the inspection of culverts along the Delaware and Raritan canal. (September '07 - October '07).

PANY&NJ Port Elizabeth Marine Terminal, Berths 50 thru 62 and 76 thru 86. Prepared bathymetric surveys and assisted in the writing of reports. (December '07).

Faraldi Group, Inc. – Professional Land Surveyors and Planners

Jamie Faraldi has gained valuable surveying experience through his work over the past 12 years with the family owned and operated surveying firm, Faraldi Group, Inc.

Jamie began working on a part time and seasonal basis during his summers and vacations in high school showing a keen interest in the field. He has continued as an employee on either a part time, seasonal or full time basis throughout his college education and beyond, including most recently working for the firm during the spring of 2008.

Jamie has had hands on experience as a survey technician in all facets of field work involving boundary and topographic surveys as well as construction layouts. In the office, he has regularly assisted in performing deed research and other clerical tasks in a supportive capacity to the licensed land surveyors.

Jamie has worked on both small and large projects, from boundary surveys for private home owners and small businesses to large scale commercial and industrial projects. Some of the later projects upon which Jamie has worked have included establishing boundary and topographic surveys and/or construction layouts for the following:

- **Essex County Veterans Memorial Parking Garage, Verona, NJ** – Century 21 Construction Corp.
  Topographic survey; line/grade to set curbs for new construction parking garage
  (2 months; April '08 – May '08)
- **Ruggiero Seafood Freezer Warehouse, Newark, NJ** - Century 21 Construction Corp.
  Mark out building for construction for new construction warehouse
  (3 months; March '08 – May '08)
- **United Auto Group (Toyota/Nissan Dealership), Jersey City, NJ** - Albanese Construction Co., Inc.
  Layout of new building; line/grade to set curbs
  (3 months; February '08 – April '08)
- **Liberty Harbor Waterfront, Jersey City, NJ** – Liberty View Construction
  Residential/Commercial & Marina Development
  Construction layout of columns, floors, elevators and piles
  (5 months; December '07 – April '08)
- **Essex County College, Newark, NJ** – Fuscon Enterprises, Inc.
  Topographic survey for campus expansion
  (6 months; June '06 – September '06, May '07 - June '07)
- **Shop Rite Retail Complex, Lodi, NJ** – Century 21 Construction Corp.
  Location of monitoring wells; topographic survey
  (9 months; December '04 – February '04, December '05 – February '05, December '06 – February '06)

TOTAL YEARS OF EXPERIENCE

With Boswell Engineering – 4.25 years
With Faraldi Group – 1.75 years
Total – 6 years

U.S. Department Of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

Jamie Faraldi

has participated in

Safety Inspection of In - Service Bridges

hosted by

Minnesota Department of Transportation

Date: March 10 - 21, 2008

Hours of Instruction: 60 PDH hours awarded

Location: Mn/DOT Training & Conference Center

John Wackerly
Instructor

Sandy Sewatius
Local Coordinator

Instructor

Joseph S. Toole, Associate Administrator
Office of Professional and Corporate Development

JW Rufolo's
Institute for Occupational Safety and Health

The Faculty
in recognition of successful completion of
the program of study required by
OSHA 29 CFR 1910.146(g)(4)
hereby confer upon
Jamie Faraldi
the Certification of
Confined Space Entry
Given Onsite in the State of New Jersey.

For the Faculty
Joseph W Rufolo
Joseph W Rufolo
President & CEO

IOSH

On this 19th
day of
January, 2012

JW Rufolo and Associates, Inc., Six Moyse Place, Edison, New Jersey 08820 ✆ (908) 757-5972

State of New York
Department of Transportation

Record of Completion

This is to document that

Jamie Faraldi

Has Received Instruction in the
Methods of Bridge Inspection
Prescribed by the Office of Structures

in token whereof this document is granted

Given at Albany, New York, March 27, 2009

Office of Structures

Association of Diving Contractors International

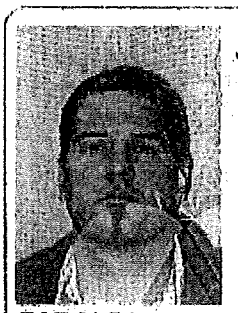
Cert. # 40176

Expires 06/28/2016

SURFACE-SUPPLIED AIR DIVER

Jamie Feraldi I.D. 909

Commercial Diver Certification Card



TWIC™

FARALDI,
JAMIE N

Expires
06MAR2014

Transportation Worker Identification Credential

Metro-North Railroad

CONTRACT EMPLOYEE ID CARD

This certifies that JAMIE FARALDI
has attended The Roadway Worker Procedures for Conductor Flags/Contract Employees Working on Metro-North Property Program.

Date of Training 3/5/09 Sticker # 6474

Valid for one (1) year from date of training

JOSEPH GAYLORD, E.I.T.
Engineer Diver / Fathometric Surveyor

EDUCATION

Bachelor of Science in Civil Engineering Technology, SUNY Institute of Technology at Utica/Rome, New York; Graduated May 2009

Associates of Science in Math/Science, Onondaga Community College, New York; Graduated May 2007

Divers Academy International, Commercial Diving, Erial, New Jersey; Graduated October 2009

DIVING CERTIFICATIONS

- SSI Certified Open Water Diver
- ACDE Commercial Diver, No. 9104
- Kirby Morgan Dive Systems Helmet Inspector.
- Crosby API RP-2 ED. 6 Rigging Certification
- 40-hr HAZWOPER certified
- Confined Space Entry – OSHA 29 CFR 1910.146(g)(4)
- ADCI Surface-Supplied Air Diver Cert. No. 40177

BRIDGE INSPECTION CERTIFICATIONS

- Safety Inspection of In-Service Bridges – FHWA National Highway Certificate of Training (60 Hour Course; 2011)

KEY QUALIFICATIONS

Mr. Gaylord is the newest staff member of Boswell Underwater Engineering, a division of Boswell Engineering specializing in the investigation and structural evaluation of marine infrastructures. He has gained experience performing underwater condition surveys and fathometer surveys on a rapidly growing array of marine structures, including bridges spanning waterways and waterfront facilities, such as piers, wharves, bulkheads, and relieving platforms. He is also skilled in analyzing information associated with underwater bridge inspections. Altogether he has logged over 215 hours underwater on inspection assignments including inspection of the submerged components of piers and waterfront structures. In addition, he has performed 32 fathometric surveys associated with dredging operations and is proficient in preparing reports and drawings utilizing Autodesk Land Desktop 2006, and in preparing fathometric survey contour drawings based on hydrographic positioning techniques.

RELEVANT EXPERIENCE

Boswell Underwater Engineering
*Mr. Gaylord has functioned in the capacity of **Engineer Diver, Fathometric Surveyor, and CAD Operator** on the following projects:*

PANY&NJ Waterfront Conditions Surveys & Construction Inspection (QAD & MED). Engineer Diver and Fathometric Surveyor on 12 assignments involving condition surveys and underwater quality assurance inspections of waterfront facilities undergoing repairs. Port Authority of NY & NJ. (January '10 - Present).

NYSDOT Regions 10 & 11 Bridge Diving Inspections & Fathometric Survey Reports. Assisted in performing over 60 fathometer surveys of bridges spanning waterways. Prepared in excess of 50 CADD-generated contour maps of waterway bottoms using AutoCAD 2006. Created fathometric survey reports of bridges spanning waterways utilizing Electronic Range-Azimuth and Differential Global Positioning Systems in conjunction with dual frequency hydrographic survey

equipment to assess changing waterway scour patterns adjacent to bridge footings. New York State Department of Transportation. (November '09 – Present).

Passaic Valley Sewage Commission (PVSC). Diver/Tender while performing dredge and obstruction survey at the sludge dock. Underwater inspection to locate and identify possible obstructions to dredging operation. Measure mudline elevations as part of a survey report.

NYPD Harbor Unit – LRS Marina / Phoenix Marine. Performed pre-dredge, interim, and post-dredge survey inside the marina utilizing Electronic Range-Azimuth and Differential Global Positioning Systems in conjunction with dual frequency hydrographic survey equipment to analyze dredging operation and perform volumetric calculations.

Avery Engineering & Land Surveyors, P.C. – Engineers, Land Development, Surveyors
Joseph Gaylord has gained valuable engineering experience through his work over the past 5 years with Avery Engineering & Land Surveyors, P.C., located in Rochester, NY.

Joe began working as an engineer intern at the firm following his first year of college during the summer of 2005. He would continue his work at the firm during his winter and summer vacations from college totaling 24 months of experience throughout his college career.

Joe received hands-on experience as a land development and structural engineer in all aspects of office assignments involving preliminary and final design, and field assignments involving construction inspection. In the office, he expanded his knowledge of various versions of AutoCAD as a draftsman as well as assisting in the design of many projects as an engineer intern.

Joe has worked on both small and large projects, from single lot site plans to large multi-lot subdivisions, the structural design of many office buildings ranging from single floor buildings to multi-story complexes, as well as the structural design of small bridges.

TOTAL YEARS OF EXPERIENCE
With Boswell Engineering – 1.58 yrs.
With Avery Engineering – 2.00 yrs.
Total – 3.58 yrs.

U.S. Department Of Transportation
Federal Highway Administration

National Highway Institute

NATIONAL HIGHWAY INSTITUTE

Certificate of Training

JOSEPH GAYLORD

has participated in

FHWA-NHI-130055 Safety Inspection of In-Service Bridges

hosted by

Boston Society of Civil Engineers with Massachusetts Department of Transportation

Date: *May 02-13, 2011* *Hours of Instruction:* 60

Location: *Boston, MA*

Instructor

Instructor

Local Coordinator

Richard Barnuby, Director
National Highway Institute

Divers Academy International

This certificate attests that:

JOSEPH FRANCIS GAYLORD

Has successfully completed academic and practical training in accordance with OSHA29 CFR 1910.120.

40 Hour Hazardous Site Worker

Given this day: October 20, 2009

Robert C. Murray

October 20, 2010
Expiration date

DIVERS ACADEMY INTERNATIONAL

1500 Liberty Place • Erial, New Jersey

Presents this Diploma to

JOSEPH FRANCIS GAYLORD

This 20th day of OCTOBER, 2009

Who has demonstrated the skill and proficiency with Surface Supplied Air and Helium Diving Equipment to ANSI / ACDE 01-2009 Standards to be eligible for graduation as a Commercial Deep Sea Diver.

Training Director Robert C. Murray

President/Director Tamara M. Brown

720 HOURS

DIVERS ACADEMY INTERNATIONAL

JW Rufolo's
Institute for Occupational Safety and Health

The Faculty
in recognition of successful completion of
the program of study required by
OSHA 29 CFR 1910.146(g)(4)
hereby confer upon
Joseph Gaylord
the Certification of
Confined Space Entry
Given Onsite in the State of New Jersey.

For the Faculty
Joseph W Rufolo
Joseph W Rufolo
President & CEO

SAFETY HEALTH ENVIRONMENTAL IOSH

On this 19th
day of
January, 2012

JW Rufolo and Associates, Inc., Six Moyse Place, Edison, New Jersey 08820 ✆ (908) 757-5972

Association of Diving Contractors International

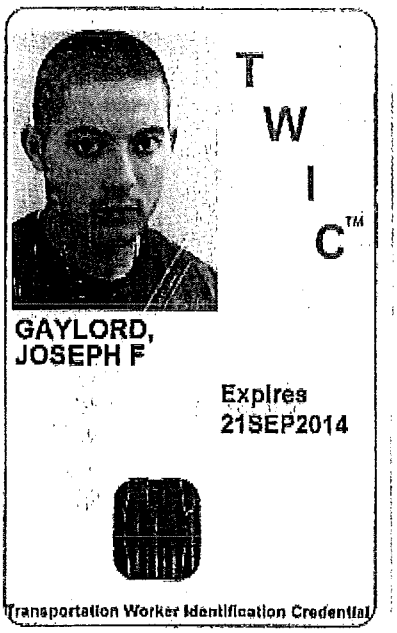
Cert. # 40177

Expires 06/28/2016

SURFACE-SUPPLIED AIR DIVER

Joseph Gaylord I.D. 941

Commercial Diver Certification Card



DAN

Oxygen First Aid for Scuba Diving Injuries

JOSEPH GAYLORD

Has fulfilled all of the educational and practical requirements for providing emergency oxygen first aid in the event of a diving emergency and is recognized as a DAN Oxygen Provider.

We, the undersigned, on the 21st day of SEPT, 2009 endorse this certificate to be valid for 24 months.

Eric Douglas
Director, Training
Divers Alert Network

DAN Instructor
Instructor Number 9692

DAN

On-Site Neurological Assessment for Divers Course

JOSEPH GAYLORD

Has fulfilled all of the educational and practical requirements for conducting an On-Site Neurological Assessment for Divers and is recognized as a DAN On-Site Neuro Provider.

We, the undersigned, on the 22nd day of SEPT, 2009 endorse this certificate to be current and valid. This certificate expires after two years.

Eric Douglas
Director of Training
Divers Alert Network

DAN Instructor
Instructor Number 9692

GARY WATSON
Inspector Diver / Equipment Specialist / Diver Tender / Boat Operator

EDUCATION:

Bergen Tech – Stick Welding
Hi-Tech Training – Heavy Equipment Operator
William Paterson College – 2 yrs.

KEY QUALIFICATIONS:

Mr. Watson is a key staff member of Boswell Underwater Engineering, a division of Boswell Engineering specializing in the investigation and structural evaluation of marine infrastructures. He has gained extensive experience performing underwater condition surveys and fathometer surveys on a wide array of marine structures, including bridges spanning waterways and waterfront facilities, such as piers, wharves, bulkheads, and relieving platforms. He is also skilled in analyzing information associated with underwater bridge inspections, including PONTIS assessments of low–clearance structures requiring full inspections.

DIVING CERTIFICATION:

- NAUI – Assistant Instructor/ First Aid CPR Certified
- BUE On-The-Job Training in Underwater Inspection of Bridges
- BUE On-The-Job Training in Hard Hat Diving
- Confined Space Entry – OSHA 29 CFR 1910.146(g)(4)
- OSHA – Construction Safety (10 Hour)
- IANTD – Nitrox Diver
- Bridge Safety Inspection NICET Level III Certification

RELEVANT EXPERIENCE:

*Projects on which Mr. Watson has served as a **Boat Operator, Inspector Diver and Dive Tender:***

PANY&NJ Waterfront Condition Surveys Technical Services on a Call-In Basis (MED & QAD). Inspector diver and fathometer surveyor on over 21 assignments involving underwater quality assurance inspections on waterfront facilities undergoing repairs, and condition survey assessments, including repair designs and/or recommendations for rehabilitation, of various types of marine structures including piers, wharves, relieving platforms, bulkheads, intake screens, and sluice gates. Also performed numerous pre-and-post dredging and rip-rap placement fathometer surveys to determine re-profiled bottom contours and quantities removed or installed, including the preparation of reports and drawings. Boat operator for drainage canal bridge inspection surrounding Newark Liberty International airport. Port Authority of NY & NJ.

ConnDOT Underwater Bridge Inspection Program. Performed routine (Level 1) inspections and PONTIS assessments of 37 bridges spanning waterways within the State of Connecticut. Reports included analyzing scour, undermining, erosion and settlement of the channel bottoms with superstructure and substructure element deficiencies. ConnDOT.

Yonkers Waste Water Treatment Facility. Performed the underwater portion of a survey and engineering investigation to determine the thickness and general condition of the steel sheet piling, evaluation for the need of a cathodic protection system and impact damage due to navigational mishap, on the cellular bulkhead which constitutes the Hudson River boundary of the Yonkers Joint Treatment Plant. DVIRKA and BARTILUCCI/ CORR PRO.

Oswego, New York Dive Tender and boat operator for biannual servicing Sound Projectors for a Fish Deterrent System in Lake Ontario.

NYSDOT Bridge Diving Inspections & Fathometer Surveys, Regions 10 & 11. Inspector diver and fathometer surveyor, performing underwater inspections on more than 48 bridges. Prepared fathometer survey assessments of more than 28 bridges spanning waterways. Developed comparisons of waterway bottom contours between current and previous surveys; analyzed scour trends in relation to bridge footings and their potential effects on the stability of bridge substructures. New York State Department of Transportation.

TOTAL YEARS OF EXPERIENCE:

10 years

IANTD

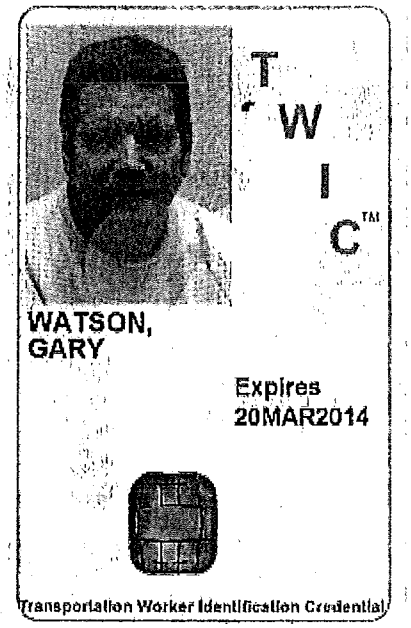
"THE LEADER IN TECHNICAL TRAINING"

NITROX DIVER
MIAMI, FL 305-751-4873

INTERNATIONAL ASSOCIATION OF
NITROX & TECHNICAL DIVERS

Name GARY WATSON
Date JUNE 20, 1994 # 7650
Instructor STEVE POLL
Facility COUNTRY SCUBA, INC.
Location FRANKLIN, NEW JERSEY

This individual has completed the necessary training to be Certified as a NITROX DIVER.



DAN

Oxygen First Aid for Scuba Diving Injuries

GARY WATSON

Has fulfilled all of the educational and practical requirements for providing emergency oxygen first aid in the event of a diving emergency and is recognized as a DAN Oxygen Provider.

We, the undersigned, on the 10 day of JAN, 2006 endorse this certificate to be current valid. Retraining is recommended every two years (24 months).

Dan Orr
Executive Vice President and COO
Divers Alert Network

DAN Instructor
Instructor Number 4503

SECTION X

APPENDICES

Attachment B

Agreement on Terms of Discussion

ATTACHMENT B

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority Freedom of Information Code and Procedure adopted by the Port Authority's Board of Commissioners on March 29, 2012, which may be found on the Port Authority website at: http://www.panynj.gov/corporate-information/pdf/foi-code.pdf, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for the regulation or supervision of commercial enterprise which, if disclosed, would cause injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, as more fully set forth in the FOI Code, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

Boswell Engineering, Inc.
(Company)

Stephen T. Boswell
(Signature) Stephen T. Boswell

President / CEO
(Title)

September 14, 2012
(Date)

ORIGINAL AND PHOTOCOPIES OF THIS PAGE ONLY. DO NOT RETYPE.

Attachment C

Company Profile

ATTACHMENT C

COMPANY PROFILE

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

1. Company Name (print or type):
   Boswell Engineering, Inc.
2. Business Address (to receive mail for this RFP):
   330 Phillips Avenue
   South Hackensack, NJ 07606
3. Business Telephone Number: (201) 641-0770
4. Business Fax Number: (201) 641-1831
5. Firm website: www.boswellengineering.com
6. Federal Employer Identification Number (EIN): (Ex. 1)
7. Date (MM/DD/YYYY) Firm was Established: 06 / 30 / 1969
8. Name, Address and EIN of Affiliates or Subsidiaries (use a separate sheet if necessary):
   Howard L. Boswell Engineer and Land Surveyor, PC, 330 Phillips Avenue,
   South Hackensack, NJ 07606, EIN: 11-2239018
9. Officer or Principal of Firm and Title:
   Stephen T. Boswell, Ph.D., P.E., SECB, President/ CEO
10. Name, telephone number, and email address of contact for questions:
    Michael J. Ganas, P.E., P.P, (201) 641-0770 Ext. 241,
    underwater@boswellengineering.com
11. Is your firm certified by the Authority as a Minority-owned, Woman-owned or Small Business Enterprise (M/W/SBE)? ☐ Yes ☒ No

    If yes, please attach **Port Authority** certification as a part of this profile.

    If your firm is an M/WBE not currently certified by the Authority, see the Authority's web site – http://www.panynj.gov/business-opportunities/supplier-diversity.html, to receive information and apply for certification.

BUE Schedule of Lateral Penetration Dive Rates

BOSWELL ENGINEERING

ENGINEERS ■ SURVEYORS ■ PLANNERS ■ SCIENTISTS

EST. 1924

330 Phillips Avenue • P.O. Box 3152 • South Hackensack, N.J. 07606-1722 • (201) 641-0770 • Fax (201) 641-1831

September 13, 2012

The Port Authority of NY & NJ
Procurement Department
2 Montgomery Street, 3rd Floor
Jersey City, NJ 07302

Re: Performance of Expert Professional
Marine Condition Surveys of Piers & Waterfront Facilities
As Requested On A "Call-In" Basis During 2013
RFP Number 30225
Penetration Dives
Our File No. PR-12-4690

Dear RFP Custodian:

In anticipation of the possibility of making potentially dangerous penetration dives in confined spaces under the 2013 contract agreement, a Penetration Dive Premium will be applied to all work requiring such an undertaking.

This penetration premium will be billed as follows:

0 – 40 feet of penetration:
No premium
41 – 300 feet of penetration
$2.00 per foot per diver per day
301 – 500 feet of penetration
$3.50 per foot per diver per day
501 – 1000 feet of penetration
$4.50 per foot per diver per day
Greater than 100 feet of penetration
Negotiable
*Note: Only maximum penetration of each diver is billed no matter how many penetration dives that diver makes during the day.

Examples of how these premiums would be applied are as follows:

Example No. 1: A diver must make a 130 foot horizontal penetration into a fully flooded 48-in. I.D. intake pipeline structure. A second diver will tend his umbilical hose at the entrance to the structure for safety reasons and to prevent his hose from fouling. The penetration diver makes a total of four (4) dives during the day, penetrating to 60-ft., 95-ft., 130-ft., and 100-ft. A Penetration Dive Premium amounting to $180.00 (i.e., $2.00/ft. x (130 ft.-40 ft.) would be filled in addition to the dive team's labor costs.

Example No. 2: A diver must make a 750-foot penetration into a 72-in. fully flooded pipeline which drops 40 feet vertically before turning 90 degrees and running horizontally for a distance of 310 feet where it again turns 90 degrees horizontally. One tending diver will be stationed at each bend. Diver #1 will be at the 40-ft. mark, Diver #2 will be at the 350-ft. mark, and Diver #3 will penetrate as far as 750-ft. A total of two (2) dives will be executed during the day. Between each dive, all divers will be out of the water. On the second dive, Diver # 4 replaces Diver #3 and penetrates a distance of 670-ft Diver # 1 and Diver #2 are stationed as before. The billing would be as follows:

Diver #1		
0 – 40 ft.	= $0.00/ft. x 40 ft.	=$ 0.00
Diver #2		
0 – 40 ft.	= $0.00/ft x 40 ft.	=$ 0.00
41 – 300 ft.	= $2.00/ft. x (300 ft. - 40 ft.)	=$ 530.00
301 – 350 ft.	= $3.50/ft. x (350 ft. – 300 ft.)	=$ 175.00
		$ 695.00
Diver #3		
0 – 40 ft.	= $0.00/ft. x 40 ft.	=$ 0.00
41 – 300 ft.	= $2.00/ft. x (300 ft. – 40 ft.)	=$ 520.00
301 – 500 ft.	= $3.50/ft. x (500 ft. – 300 ft.)	=$ 700.00
501 – 750 ft.	= $4.50/ft. x (750 ft. – 500 ft.)	=$1125.00
		$2345.00
Diver #4		
0 – 40 ft.	= $0.00/ft. x 40 ft.	=$ 0.00
41 – 300 ft.	= $2.00/ft. x (300 ft. – 40 ft.)	=$ 520.00
301 – 500 ft.	= $3.50/ft. x (500 ft. – 300 ft.)	=$ 700.00
501 – 750 ft.	= $4.50/ft. x (650 ft. – 50 ft.)	=$ 765.00
		$1985.00
	Total Penetration Dive Premium	**=$5025.00**

Such penetration dives rarely occur, but should the need to perform one arise, let this letter serve as a cost basis for carrying out this type of work.

Should you have any questions regarding this, please do not hesitate to contact me.

Very truly yours,

BOSWELL UNDERWATER ENGINEERING

Michael J. Ganas, P.E., P.P.
BUE Managing Director

MJG/kc

BOSWELL ENGINEERING

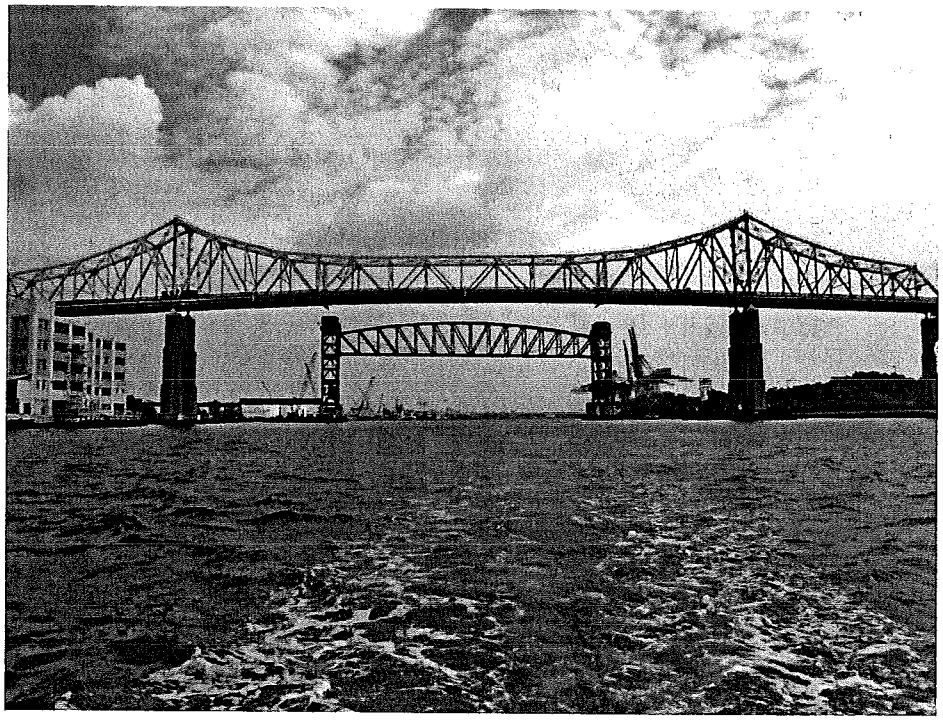
The Castle Group
Innovation in Action

W.J. Castle P.E. & Associates
Hydro-Marine Construction
Simplified Bridge Systems

Request for Proposal (RFP #30225)

For Performance of Expert Professional Marine Condition Surveys of Piers and Waterfront Facilities As Requested on a "Call-In" Basis During 2013

Port Authority of NY & NJ



W.J. Castle PE
& Associates

ORIGINAL

Tynddol Building
1345 Route 38 West
Hainesport, NJ 08036
(609) 261-2268

September 18, 2012

W.J. Castle PE
& Associates

THE PORT AUTHORITY OF NY & NJ REQUEST FOR PROPOSALS FOR MARINE CONDITION SURVEY S OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP# 30225)

SECTION A – Attachment B (Agreement on terms of Conditions)

SECTION B – Complete Copy of Attachment C (Company Profile)

SECTION C – Transmittal Letter

SECTION D – The "Multiplier"

SECTION E – Resumes, Certifications & Licenses

SECTION F – Names, Titles, & Hourly Rates effective 2013

SECTION H – Experience

SECTION I – Exhibit I

SECTION J – Firms Affiliates

SECTION K – Conflict of Interest Statement

SECTION L – Terms & Conditions

Supplemental Information

ATTACHMENT B

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority Freedom of Information Code and Procedure adopted by the Port Authority's Board of Commissioners on March 29, 2012, which may be found on the Port Authority website at: http://www.panynj.gov/corporate-information/pdf/foi-code.pdf, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for the regulation or supervision of commercial enterprise which, if disclosed, would cause injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, as more fully set forth in the FOI Code, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

W.J. Castle, P.E. & Associates, P.C.
(Company)

(Signature)

President
(Title)

9/18/2012
(Date)

ORIGINAL AND PHOTOCOPIES OF THIS PAGE ONLY. DO NOT RETYPE.

ATTACHMENT C

COMPANY PROFILE

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

1. Company Name (print or type):
   W.J. Castle, P.E. & Associates, P.C.

2. Business Address (to receive mail for this RFP):

   1345 Route 38 West

   Hainesport, NJ 08036

3. Business Telephone Number: (609) 261-2268

4. Business Fax Number: (609) 261-3422

5. Firm website: www.wjcastlegroup.com

6. Federal Employer Identification Number (EIN): (Ex. 1)

7. Date (MM/DD/YYYY) Firm was Established: 10 / 01 / 1983

8. Name, Address and EIN of Affiliates or Subsidiaries (use a separate sheet if necessary):

9. Officer or Principal of Firm and Title:

   William J. Castle, P.E., S.E.

10. Name, telephone number, and email address of contact for questions:
    William J. Castle, P.E., (609) 261-2268, bcastle@wjcastlegroup.com

11. Is your firm certified by the Authority as a Minority-owned, Woman-owned or Small Business Enterprise (M/W/SBE)? ☒ Yes ☐ No

    If yes, please attach **Port Authority** certification as a part of this profile.

    If your firm is an M/WBE not currently certified by the Authority, see the Authority's web site – http://www.panynj.gov/business-opportunities/supplier-diversity.html, to receive information and apply for certification.

THE PORT AUTHORITY OF NY & NJ

Anthony R. Coscia
Chairman

Christopher O. Ward
Executive Director

Certified

by

Office of Business & Job Opportunity

W.J. Castle, P.E. & Associates, P.C.

Certificate PA-17584

This certificate acknowledges that the above named firm is certified as a **Small Business Enterprise (Architectural and Engineering Program).** This company has met the criteria for ownership and control as established by the Port Authority Policy for Revised Minority, Woman and Small Business Enterprise (M/W/SBE) Programs, dated June 10, 1993.

This certification will remain in effect for five years from the date of notice and may be extended only upon submission by you, and acceptance by the Port Authority of a recertification application attesting that the ownership and control of the business, on which this certificate is granted, has not changed. This office must be notified within 30 days of any material changes in the business which affect ownership and control. Failure to do so may result in the revocation of this certification and/or imposition of other sanctions.

Lash Green
Director
Certified: November 26, 2008

Rosemary Jenkins-Varela
Manager, Certification
Scheduled Re-evaluation: November 25, 2013

Form: 6/10/93

ATTACHMENT C

COMPANY PROFILE

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

1. Company Name (print or type):
   Pennoni Associates Inc.

2. Business Address (to receive mail for this RFP):

   105 Fieldcrest Avenue, Suite 502

   Edison, NJ 08837

3. Business Telephone Number: 908-653-0889

4. Business Fax Number: 908-653-0530

5. Firm website: www.pennoni.com

6. Federal Employer Identification Number (EIN): (Ex. 1)

7. Date (MM/DD/YYYY) Firm was Established: 07 / 21 / 1967

8. Name, Address and EIN of Affiliates or Subsidiaries (use a separate sheet if necessary):

9. Officer or Principal of Firm and Title:

   Ted F. Januszka, Associate Vice President

10. Name, telephone number, and email address of contact for questions:
    Jennifer C. Laning, PE
    443-449-2503 jlaning@pennoni.com

11. Is your firm certified by the Authority as a Minority-owned, Woman-owned or Small Business Enterprise (M/W/SBE)? ☐ Yes ☒ No

    If yes, please attach **Port Authority** certification as a part of this profile.

    If your firm is an M/WBE not currently certified by the Authority, see the Authority's web site – http://www.panynj.gov/business-opportunities/supplier-diversity.html, to receive information and apply for certification.

ATTACHMENT C

COMPANY PROFILE

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

1. Company Name (print or type):
   LS Engineering Associates Corporation

2. Business Address (to receive mail for this RFP):
   150 River Road, Building E, Suite E2
   Montville, New Jersey 07045

3. Business Telephone Number: (973) 588-3122

4. Business Fax Number: (973) 588-3123

5. Firm website: lseacorp.com

6. Federal Employer Identification Number (EIN): _____

7. Date (MM/DD/YYYY) Firm was Established: 03 / 04 / 2001

8. Name, Address and EIN of Affiliates or Subsidiaries (use a separate sheet if necessary):

9. Officer or Principal of Firm and Title:
   Kim Law, President

10. Name, telephone number, and email address of contact for questions:
    Kim Law, phone (973) 588-3122, email: kimlaw@lseacorp.com

11. Is your firm certified by the Authority as a Minority-owned, Woman-owned or Small Business Enterprise (M/W/SBE)? ☒ Yes ☐ No

    If yes, please attach **Port Authority** certification as a part of this profile.

    If your firm is an M/WBE not currently certified by the Authority, see the Authority's web site – http://www.panynj.gov/business-opportunities/supplier-diversity.html, to receive information and apply for certification.

THE PORT AUTHORITY OF NY & NJ

Anthony R. Coscia
Chairman

Christopher O. Ward
Executive Director

Certified

by

Office of Business & Job Opportunity

LS Engineering Associates Corporation

Certificate PA-23968

This certificate acknowledges that the above named firm is recertified as a **Minority Business Enterprise.** This company has met the criteria for ownership and control as established by the Port Authority Policy for Revised Minority, Woman and Small Business Enterprise (M/W/SBE) Programs, dated June 10, 1993.

This certification will remain in effect for five years from the date of notice and may be extended only upon submission by you, and acceptance by the Port Authority of a recertification application attesting that the ownership and control of the business, on which this certificate is granted, has not changed. This office must be notified within 30 days of any material changes in the business which affect ownership and control. Failure to do so may result in the revocation of this certification and/or imposition of other sanctions.

Lash Green
Director
Certified: September 3, 2008

Rosemary Jenkins-Varela
Manager, Certification
Scheduled Re-evaluation: September 3, 2013

Form: 6/10/93 RAL

W.J. Castle PE
& Associates

September 18, 2012

The Port Authority of New York & New Jersey
2 Montgomery Street, 3rd Floor
Jersey City, NJ 07302

Attn: RFP Custodian

RE: The Port Authority of NY & NJ Request for Proposals for Marine Condition Surveys of Piers & Waterfront Facilities as Requested on a "Call In" Basis 2013 – (RFP# 30225)
WJC No. 1652.12

Dear RFP Custodian:

W.J. Castle, P.E. & Associates, P.C. is pleased to submit our proposal for RFP # 30225. We have carefully reviewed the RFP and have built a team that we believe will exceed all of the Port Authority's requirements.

Our Project Team includes our own staff of professional divers, licensed P.E.'s and inspectors. We are joined by Pennoni Associates, Inc. and LS Engineering Associates Corporation and we believe this combination of experienced engineers and inspectors demonstrates the prequalification requirements as identified in Section I of the RFP. All members of our team are registered and licensed to perform engineering services in both New York and New Jersey. Our project team is experienced with each and every aspect of this project. LS Engineering's experience with the Authority will be an invaluable asset to our team in assuring all Authority needs is met. LS Engineering also provides MBE services for any requirements the Authority may wish to meet. We also have a thorough knowledge of the Authority's policies and procedures and the New York/New Jersey area. Our team offers to The Port Authority the most up to date inspection capabilities and a proven top quality performance record to assure the highest quality inspections and reporting.

Mr. William Castle, PE will be the project manager and an active Engineer/diver for this project. Mr. Castle is a licensed Professional Engineer in both New York and New Jersey. Mr. Richard Parisi, PE will also be a team leader for this project and has his license pending in both New York and New Jersey. We are offering up to four inspection teams to the Authority and over 8 inspector divers for this project. We assure the Authority that CASTLE will have available a minimum of two teams on any single day for inspection. **Our teams are local and we can provide inspection teams within a 24 hour notice on site.**

We appreciate the opportunity to be of service to The Port Authority of NY & NJ and if selected, the Port Authority can be assured that the quality of work performed will be second to no other company.

Sincerely,

W.J. Castle, P.E. & Associates, P.C.

William J. Castle
President

WJC:lb

W.J. Castle PE
& Associates

State of New Jersey

DEPARTMENT OF TRANSPORTATION
P.O. Box 600
Trenton, New Jersey 08625-0600

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

JAMES S. SIMPSON
Commissioner

JUN 15 2012

June 11, 2012

Mr. William J. Castle
President
W.J. Castle, PE & Associates, P.C.
1345 Route 38 West
Hainesport, NJ 08036

Dear Mr. Castle:

Based on our review of W.J. Castle PE & Associates, P.C.'s submitted Overhead Billing Rate for the Year Ended December 31, 2011, we have determined an overhead rate of 220.0 percent should be used for interim billing purposes on future contracts with the Department as well as your firm's settle-up schedules.

This rate is subject to audit verification. Our acceptance of this rate does not extend beyond contracts with the New Jersey Department of Transportation. Any other entity contracting with the firm is responsible for determining the acceptability of the overhead statement.

If you have any questions, feel free to contact Lehman Ford at (609) 530-2350.

Sincerely,

Richard Temmer

Richard Temmer
Administrative Analyst I
Bureau of Auditing

LF/ams

HAEFELE FLANAGAN

CERTIFIED PUBLIC ACCOUNTANTS AND CONSULTANTS

Haefele, Flanagan & Co., p.c.
Tall Oaks Corporate Center
Building 2, Suite 200, 1000 Lenola Road
P.O. Box 471, Moorestown, NJ 08057

(856) 722-5300
(215) 627-5150
Fax: (856) 722-5395
www.hfco.com

INDEPENDENT ACCOUNTANTS' REPORT ON APPLYING AGREED-UPON PROCEDURES

To the Management
of WJ Castle, PE & Associates, P.C.
Hainesport, New Jersey

We have performed the procedures enumerated below, which were agreed to by management, solely to assist management in calculating the Overhead Billing Rate of **WJ CASTLE, PE & ASSOCIATES, P.C.** for the State of New Jersey Department of Transportation ("NJDOT") for the year ended December 31, 2011, with respect to contracts with NJDOT, in accordance with the Federal Acquisition Regulations (FAR). **WJ CASTLE, PE & ASSOCIATES, P.C** is responsible for the Company's accounting records. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of the procedures is solely the responsibility of the management of **WJ CASTLE, PE & ASSOCIATES, P.C.** Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or for any other purpose.

For purposes of our analysis, we utilized the financial information for the year ended December 31, 2011 included in the Company's reviewed combined financial statements dated April 6, 2012 and the Company's internal financial information.

Our procedures and finding are as follows:

1. We read Part 31, "Contract Cost Principles and Procedures" of the Federal Acquisition Regulation (FAR) as of April 2012.

2. We identified the total indirect costs for the year ended December 31, 2011 provided from the Company's reviewed combined financial statements dated April 6, 2012 and internal financial information.

3. We made inquiries of management as to the allowability/unallowability of specific costs based upon our interpretation of FAR.

4. We segregated the unallowable costs from the allowable costs based upon the above and summarized the allowable costs in Exhibit I.

5. We calculated the Distribution Base using a direct labor allocation basis.

6. Using the allowable indirect costs, we calculated the Overhead Billing Rate for the year ended December 31, 2011.

The Overhead Billing Rate (EXHIBIT I) applicable to government contracts, in accordance with the Federal Acquisition Regulations, has been determined to be as follows:

YEAR END	COST POOL	RATE	DISTRIBUTION BASE
12/31/11	**Indirect Costs**	**220.04%**	**Direct Labor**

We were not engaged to, and did not, conduct an audit, the objective of which would be the expression of an opinion, on the Overhead Billing Rate calculation. Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the use of the management of **WJ CASTLE, PE & ASSOCIATES, P.C.** and NJDOT and is not intended to be and should not be used by anyone other than those specified parties.

Haefele, Flanagan & Co., p.c.

Moorestown, New Jersey
May 2, 2012

EXHIBIT I

WJ CASTLE, P.E. & ASSOCIATES, P.C.
OVERHEAD BILLING RATE
FOR THE YEAR ENDED DECEMBER 31, 2011

Cost Element	Total	Adjustments	Allowable
Burden & Fringe:			
Vacation	$ 24,272	$ -0-	$ 24,272
Holiday	14,268		14,268
Sick Pay	3,859		3,859
Workmen's compensation	4,312		4,312
Medical & life	47,327	(750)	46,577
FICA - employer's share	42,482		42,482
Unemployment & disability - employer's share	8,268		8,268
Total Burden & Fringe	144,788	(750)	144,038
Overhead:			
Indirect wages	190,467		190,467
Advertising expense	14,463	(14,463)	-0-
Auto and travel expenses	5,275		5,275
Bad debts	30,000	(30,000)	-0-
Depreciation	20,285		20,285
Donations	3,800	(3,800)	-0-
Dues and subscriptions	11,098		11,098
Employee benefits	37,263		37,263
Entertainment	1,468	(1,468)	-0-
Insurance expense	60,481		60,481
Interest expense	2,615	(2,615)	-0-
Lease expense	34,451		34,451
Maintenance and repairs	26,927		26,927
Meetings and seminars	12,998		12,998
Miscellaneous	111		111
Office supplies and expense	7,018		7,018
Professional fees	55,743		55,743
Rent	72,000	(7,177)	64,823
Taxes and licenses	7,867		7,867
Utilities	17,816		17,816
Total Overhead	612,146	(59,523)	552,623
Total Indirect Costs	$ 756,934	$ (60,273)	$ 696,661
Total Direct Labor Cost	$ 316,604	$ 316,604	$ 316,604
Overhead Billing Rate	239.08%	-19.04%	220.04%

See independent accountants' report on applying agreed-upon procedures.

WJ CASTLE, P.E. & ASSOCIATES, P.C.
RECONCILIATION OF TOTAL COSTS PER FINANCIAL STATEMENT TO OVERHEAD REPORT
FOR THE YEAR ENDED DECEMBER 31, 2011

Cost Element	Total Costs		Less Direct Costs not Overhead	Total Indirect Costs
Burden & Fringe:				
Vacation	$ 24,272		$ -0-	$ 24,272
Holiday	14,268			14,268
Sick Pay	3,859			3,859
Workmen's compensation	4,312	5		4,312
Medical & life	47,327	6		47,327
FICA - employer's share	42,482	7		42,482
Unemployment & disability - employer's share	8,268	7		8,268
Total Burden & Fringe	144,788		-0-	144,788
Overhead:				
Indirect wages	190,467	1		190,467
Advertising expense	14,463			14,463
Auto and travel expenses	5,275			5,275
Bad debts	30,000			30,000
Depreciation	20,285			20,285
Donations	3,800			3,800
Dues and subscriptions	11,098			11,098
Employee benefits	37,263	2		37,263
Entertainment	1,468			1,468
Equipment rental	1,938		(1,938)	-0-
Insurance expense	60,481	3		60,481
Interest expense	2,615			2,615
Lease expense	34,451			34,451
Maintenance and repairs	26,927	4		26,927
Materials and supplies	165		(165)	-0-
Meetings and seminars	12,998			12,998
Miscellaneous	111			111
Office supplies and expense	7,018			7,018
Professional fees	55,743			55,743
Reimbursed expenses	26,290		(26,290)	-0-
Rent	72,000			72,000
Outside services	72,474		(72,474)	-0-
Taxes and licenses	7,867			7,867
Utilities	17,816			17,816
Total Overhead	713,013		(100,867)	612,146
Total Indirect Costs	$ 857,801		$ (100,867)	$ 756,934
Total Direct Labor Cost	$ 316,604		$ 316,604	$ 316,604
Overhead Billing Rate	270.94%		-31.86%	239.08%

Reconciliation to the financial statements

1 Indirect wages	
Administrative wages	76,903
Indirect engineering wages	155,963
Total per financial statement	232,866
Less burden and fringe:	
Vacation pay	(24,272)
Holiday pay	(14,268)
Sick pay	(3,859)
Total indirect wages per overhead	190,467
2 Employee benefits	
Per financial statements	86,626
Less burden and fringe:	
Workmen's compensation	(2,786)
Medical and life	(46,577)
Total employee benefits per overhead	37,263
3 Insurance expense	
Per financial statements	62,007
Less burden and fringe:	
Workmen's compensation	(1,526)
Total insurance expense per overhead	60,481
4 Maintenance and repairs	
Per financial statements	26,909
Plus: boat operating expense	18
Total repairs and maintenance per overhead	26,927
5 Workmen's compensation	4,312
6 Medical and life	
Officer's life insurance	750
Plus deducted from employee benefits	46,577
Total medical and life per overhead	47,327
7 Payroll taxes	
FICA - employer's share	42,482
Unemployment & disability - employer's share	8,268
Payroll taxes per financial statements	50,750

Pennoni

PENNONI ASSOCIATES INC.

CONSULTING ENGINEERS

Pennoni Associates Inc.

Consolidated Schedule of Direct Labor and Indirect Overhead Costs

Year Ended December 31, 2010

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MervesAmon&Barsz LLC
Certified Public Accountants

Independent Auditors' Report

Board of Directors and Stockholders
Pennoni Associates Inc.

Report on the Consolidated Schedule of Direct Labor and Indirect Overhead Costs

We have audited the Consolidated Schedule of Direct Labor and Indirect Overhead Costs (the "Consolidated Schedule") of Pennoni Associates Inc. for the year ended December 31, 2010. The Schedule is the responsibility of the management of Pennoni Associates Inc (the "Company"). Our responsibility is to express an opinion on the Consolidated Schedule based on our audit. We did not audit the Direct Labor and Indirect Overhead Costs of Patton, Harris, Rust & Associates, Inc., a wholly owned subsidiary. Those statements reflected Direct Labor of $6,910,141, allocated between Field ($230,700) and Home Office ($6,679,441), respectively and Adjusted Total Fringe Benefits and General Overhead of $11,975,585, allocated between Field ($316,045) and Home Office ($11,659,540), respectively. Those costs were audited by other auditors whose report has been furnished to us, and our opinion, insofar as it related to the amounts included for Patton, Harris, Rust & Associates, Inc., is based solely on the report of the other auditors.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the Schedule is free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the Consolidated Schedule. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall schedule presentation. We believe that our audit provides a reasonable basis for our opinion.

As described in Note 2, the Consolidated Schedule was prepared in conformity with the accounting practices prescribed by the Federal Acquisition Regulations 48 CFR, Chapter 1, Part 31, and certain other State regulations, which is a comprehensive basis of accounting other than generally accepted accounting principles.

In our opinion, based on our audit and the report of the other auditors, the Consolidated Schedule referred to above presents fairly, in all material respects, the information presented therein for the year ended December 31, 2010 in conformity with the basis of accounting discussed in Note 2.

Fifty South Providence Road Media, Pennsylvania 19063 (610) 565-1120 FAX (610) 565-1159
One Windy Drive Blackwood, New Jersey 08012 (856) 963-1120

Report on Compliance and Other Matters and Internal Control over Financial Reporting

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Consolidated Schedule is free of material misstatement, we performed tests of the Company's compliance with the Federal Acquisition Regulations Title 48 CFR, Chapter 1, Part 31, noncompliance with which could have a direct and material effect on the determination of the Consolidated Schedule amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under *Government Auditing Standards*.

Internal Control over Financial Reporting

In planning and performing our audit, we considered the Company's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing an opinion on the Consolidated Schedule and not to provide assurance on the internal control over financial reporting. Accordingly, we do not express an opinion on the effectiveness of the Company's internal control over financial reporting.

The management of the Company is responsible for establishing and maintaining internal control over financial reporting. In fulfilling this responsibility, estimates and judgments by management are required to assess the expected benefits and related costs of internal controls over financial reporting. The objectives of internal control over financial reporting are to provide management with reasonable, but not absolute, assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with the Federal Acquisition Regulations 48 CFR, Chapter 1, Part 31. Because of inherent limitations in any internal control structure, errors or irregularities may nevertheless occur and not be detected. Also, projection of any evaluation of the structure to future periods is subject to the risk that procedures may become inadequate because of changes in conditions or that the effectiveness of the design and operation of policies and procedures may deteriorate.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis. A significant deficiency is a control deficiency, or combination of control deficiencies, that adversely affects the Company's ability to initiate, authorize, record, process, or report financial data reliably in accordance with Federal Acquisition Regulations Title 48 CFR, Chapter 1, Part 31, such that there is more than a remote likelihood that a misstatement in the Consolidated Schedule that is more than inconsequential will not be prevented or detected by the Company's internal control. A material weakness is a significant deficiency, or combination of significant deficiencies, such that there is a reasonable possibility that a material misstatement of the Company's Consolidated Schedule will not be prevented or detected, and corrected, on a timely basis.

Our consideration of the internal control over financial reporting was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over financial reporting that might be deficiencies, significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over financial reporting that we consider to be material weaknesses, as defined above.

This report is intended solely for the information and use of the board of directors, management, others within the organization, and various federal and state awarding agencies and is not intended to be and should not be used by anyone other than these specified parties.

Mervues Amon & Barsz LLC

May 20, 2011

Pennoni Associates Inc.
Consolidated Schedule of Direct Labor and Indirect Overhead Costs
Year Ended December 31, 2010

	Total Costs	Unallowed	Unallowed Costs	Allowed Costs	Allocation Percentage	Field Office Amount	Home Office Amount
Direct Labor	$ 36,135,308		$ -	$ 36,135,308		$ 8,650,194	$ 27,485,114
Fringe Benefits							
Payroll Taxes - direct salaries	$ 3,571,815		$ -	$ 3,571,815	23.938%	$ 855,021	$ 2,716,794
Disability insurance	242,131			242,131	23.938%	57,961	184,170
Education costs	22,707			22,707	23.938%	5,436	17,271
Employees well-being	204,655	1	39,124	165,531	23.938%	39,625	125,906
ESOP contribution	1,980,000			1,980,000	23.938%	473,972	1,506,028
Fringe payroll	4,981,133			4,981,133	23.938%	1,192,384	3,788,749
Group life insurance	93,514			93,514	23.938%	22,385	71,129
Hospitalization	6,499,559			6,499,559	23.938%	1,555,864	4,943,695
Personnel benefits - contract personnel	3,176			3,176	23.938%	760	2,416
Professional development	621,022			621,022	23.938%	148,660	472,362
Workers' compensation insurance	262,622			262,622	23.938%	62,866	199,756
Total Fringe Benefits	18,482,334		39,124	18,443,210		4,414,934	14,028,276
General Overhead							
Accounting and consulting	1,055,846	2	262,086	793,760	23.938%	190,010	603,750
Advertising	474,647	3	443,726	30,921	23.938%	7,402	23,519
Amortization	218,696	4	218,696	-		-	-
Automobile expenses	1,086,057	5	67,901	1,018,156	9.811%	99,891	918,265
Bad debt expense	766,062	6	766,062	-		-	-
Contract personnel - administrative	16,569			16,569	9.811%	1,626	14,943
Contributions	392,959	7	392,959	-		-	-
Data processing	1,538,399			1,538,399	9.811%	150,932	1,387,467
Depreciation - computer equipment	608,756			608,756	9.811%	59,725	549,031
- office equipment	556,353			556,353	9.811%	54,584	501,769
- transportation equipment	25,161			25,161	23.938%	6,023	19,138
- engineering and field equipment	159,507			159,507	23.938%	38,183	121,324
- leasehold improvements	41,352			41,352	9.811%	4,057	37,295
Dues and subscriptions	90,198			90,198	23.938%	21,592	68,606
Employee recruitment	104,163			104,163	23.938%	24,935	79,228
Engineering supplies	389,760			389,760	23.938%	93,301	296,459
Entertainment	655,324	8	655,324	-		-	-

Pennoni Associates Inc.
Consolidated Schedule of Direct Labor and Indirect Overhead Costs
Year Ended December 31, 2010

	Total Costs	Unallowed	Unallowed Costs	Allowed Costs	Allocation Percentage	Field Office Amount	Home Office Amount
Facilities Capital Cost of Money	-	9	(50,704)	50,704	23.938%	12,137	38,567
Field supplies	213,707			213,707	23.938%	51,157	162,550
Insurance - general	485,068	10	(18,322)	503,390	23.938%	120,501	382,889
- professional liability	624,449			624,449	23.938%	149,481	474,968
Interest	450,743	11	450,743	-		-	-
Legal	117,691			117,691	23.938%	28,173	89,518
Meetings and conferences	225,303	12	117,165	108,138	9.811%	10,609	97,529
Office expense and postage	809,371	13	3,077	806,294	9.811%	79,106	727,188
Office maintenance	595,807			595,807	9.811%	58,455	537,352
Payroll - administrative	19,086,480			19,086,480	23.938%	4,568,922	14,517,558
- fringe	902,622			902,622	23.938%	216,070	686,552
Payroll taxes	1,493,392			1,493,392	23.938%	357,488	1,135,904
Rent	5,107,397			5,107,397	9.811%	501,087	4,606,310
Reproduction	501,559			501,559	23.938%	120,063	381,496
Retirement plans administration	113,164			113,164	23.938%	27,089	86,075
Taxes and licenses	337,470			337,470	23.938%	80,784	256,686
Telephone	1,277,878			1,277,878	9.811%	125,373	1,152,505
Travel	474,607	14	3,275	471,332	9.811%	46,242	425,090
Utilities	380,317			380,317	9.811%	37,313	343,004
Loss (gain) on sale of fixed assets	22,490			22,490	9.811%	2,206	20,284
Total General Overhead	41,399,324		3,311,988	38,087,336		7,344,517	30,742,819
Total Fringe Benefits and General Overhead	$ 59,881,658			$ 56,530,546		$ 11,759,451	$ 44,771,095
Overhead Rate				156.441%		135.944%	162.892%

Pennoni Associates Inc.
Summary of Unallowed Costs
Year Ended December 31, 2010

1) Included in employees' well-being are entertainment costs of $39,124, which are unallowable per FAR 31.205-14.

2) Included in accounting and consulting are costs of $262,086, of which $92,222 are unallowable per FAR 31.205-27 and $169,864, which are unallowable per FAR 31.205-22.

3) Advertising costs of $443,726 are unallowable per FAR 31.205-1.

4) Amortization costs which are unallowable per FAR 31.205-49.

5) Automobile expenses include personal use of Company vehicles in the amount of $67,901, which are unallowable per FAR 31.205-6.

6) Bad debt expense and related collection expenses are unallowable per FAR 31.205-3.

7) Contributions are unallowable per FAR 31.205-8.

8) Entertainment costs are unallowable per FAR 31.205-14.

9) FAR 31.205-10, "Facilities Capital Cost of Money", allows for the inclusion of the cost of money for average facilities capital in accordance with 48 CFR 9904.414.

10) Included in insurance expense are life insurance credits of $18,322, which are unallowable per FAR 31.205-19.

11) Interest expense is unallowable per FAR 31.205-20.

12) Included in meetings and conferences are business promotion and entertainment costs of $117,165, which are unallowable per FAR 31.205-14.

13) Included in office expense and postage are costs of $3,077, which are unallowable per FAR 31.205-1.

14) Travel expense of $3,275 is unallowable under the allocability provisions of FAR 31.201-4.

Pennoni Associates Inc.
Notes to Consolidated Schedule of Direct Labor and Indirect Overhead Costs
Year Ended December 31, 2010

Note 1 Nature of Business

Pennoni Associates Inc. (the "Company") is a firm of professional engineers providing a diversity of engineering services; civil, environmental consulting and remediation, planning, transportation, surveying, structural, landscape architecture, inspection and testing, mechanical, electrical and plumbing design, and related services to private, commercial, industry and government.

Note 2 Basis of Accounting and Accounting Systems

The Company prepares its consolidated schedule of direct labor and indirect overhead costs in accordance with Title 48 CFR, Part 31 Federal Acquisition Regulations ("FAR") and certain State regulations. Accordingly, the above-mentioned Schedule is not intended to present the results of operations of the Company in conformity with accounting principles generally accepted in the United States of America.

Pennoni Engineering of New York, P.C. is included in the consolidated schedule of direct labor and indirect overhead costs under the provisions of FASB ASC Topic 810.

The Company maintains a job cost accounting system for the recording and accumulation of direct costs that can be identified specifically with a particular final cost objective in a specific contract. Those costs identified to a particular contract are charged directly to the contract and are not included in the indirect cost pool. Indirect overhead costs are those costs not directly identified to a single, final cost objective and are allocated to several cost objectives or contracts, which benefit indirectly from such costs. The Company allocates its indirect overhead costs based on direct labor as it is recorded and accumulated through the job cost accounting system.

The Company's method of estimating costs for pricing purposes during the proposal process is consistent with the accumulation and reporting of costs under its job cost accounting system.

The Company does not charge any CADD costs, except labor, directly to contracts and, therefore, includes all related CADD costs in the indirect overhead cost pool.

Note 3 Field Office Rate

Indirect labor, fringe benefits and expenses common to both the home office and the field operations have been allocated to the field office based upon the ratio of direct field office labor dollars to total direct labor dollars. The remaining overhead costs are allocated based upon the ratio of field indirect labor to the total home office labor. The direct labor dollars for the field operations represent the wages of the individuals specifically identified by the Company as physically working at all field sites.

Note 4 Description of Overhead Rate Structure

The following represents the allowable overhead rates incurred by the Company for the year ended December 31, 2010:

Composite Overhead Rate
(Fringe Benefits plus General Overhead / Direct Labor)
$56,530,546 / $36,135,308 = 156.441%

Field Overhead Rate
(Allocated Fringe Benefits plus General Overhead / Direct Labor)
$11,759,451 / $8,650,194 = 135.944%

Home Office Overhead Rate
(Allocated Fringe Benefits plus General Overhead / Direct Labor)
$44,771,095 / $27,485,114 = 162.892%

Note 5 Premium Overtime

Costs are incurred in meeting certain deadlines. If an employee is eligible for overtime, they receive a cash payment equal to time and a half (premium portion). The premium portion of paid overtime is not included in the indirect cost pool.

Note 6 Executive Compensation

Executive compensation in excess of those amounts indicated in published national compensation surveys such as Economic Research Institute has been considered and no adjustment is necessary.

Note 7 Depreciation

Depreciation is provided using the straight-line and accelerated methods over the estimated useful lives of the related assets. No bonus or Section 179 tax depreciation is included in the indirect cost pool.

Note 8 Employee Benefit Plans

Profit Sharing Plan

The Company maintains a retirement plan, which consists of two components, a defined contribution profit sharing component (the "Profit Sharing Component") and a Section 401(k) salary reduction component (the "401(k) Component"). Both components cover all eligible employees of the Company. The Plan meets the requirements of FAR 31.205-6(j).

The Company contributes to the Profit Sharing Component an amount determined at the discretion of the Company's Board of Directors. For the year ended December 31, 2010 the profit sharing contribution authorized by the Board of Directors amounted to $-0-.

Note 8 Employee Benefit Plans, (Continued)

Employee Stock Ownership Plan

The Company adopted an employee stock ownership plan ("ESOP") on December 17, 1994, effective as of January 1, 1994. The ESOP covers all United States employees who have worked at least 1,000 hours of service during the plan year. The Company makes discretionary contributions plus contributions to fund plan participant distributions.

The amount of the Company's share of ESOP expense included in the overhead pool for the year ended December 31, 2010 amounted to $1,980,000.

Note 9 Facilities Capital Cost of Money

The cost-of-money rate has been calculated in accordance with FAR 31.205-10, using average net book values of equipment and facilities multiplied by the average prompt pay interest rate for the applicable period. Equipment and facilities include furniture and fixtures, computer equipment, vehicles and leasehold improvements. The calculation was made as follows:

Average equipment and facilities	$ 3,892,683
Average prompt pay interest rate	3.1875%
Computed Facilities Capital Cost of Money	124,079
Indirect Allocation Percentage	40.864%
Facilities Capital Cost of Money	$ 50,704

Note 10 Acquisition of Subsidiary

The Company acquired 100 percent of the outstanding common stock of Patton, Harris, Rust & Associates, Inc. ("PHRA") on December 31, 2010. The acquisition was accounted for as a purchase. PHRA is an engineering firm offering similar services as the Company in the Baltimore-Washington Metropolitan Area, Virginia and West Virginia.

LSEA

LS Engineering Associates Corporation

Overhead Schedule

For the Year Ended
December 31, 2009

Account Number	Account Name	Amount Per G/L	Adjustments	As Adjusted
6560	Indirect Salaries & Wages	692,242.21		692,242.21
6116	Advertisement Expenses	3,950.00	(3,950.00) (a)	0.00
6100	Auto Expenses	32,037.33		32,037.33
6120	Bank Service Charges	24,852.94		24,852.94
6130	Computer Accessories	1,539.07		1,539.07
6140	Contributions	35.00	(35.00) (e)	0.00
6150	Depreciation Expenses	23,805.00		23,805.00
6160	Dues and Subscriptions	1,205.41		1,205.41
6170	Equipment Rental	108,879.06		108,879.06
6900	Fines and Penalties	3,331.96	(3,331.96) (f)	0.00
6180	Insurance	88,117.35		88,117.35
6200	Interest Expenses	50,709.52	(50,709.52) (b)	0.00
6415	Internet Expenses	4,969.11		4,969.11
6325	Janitorial Expenses	2,150.00		2,150.00
6230	Licenses & Permits	4,597.74		4,597.74
6370	Meals & Entertainment	4,760.89	(4,760.89) (c)	0.00
6235	Membership Fees	1,030.00		1,030.00
6240	Miscellaneous Expenses	2,846.88		2,846.88
6241	Office Expenses	29,888.47		29,888.47
6430	Parking & Tolls	586.59		586.59
6250	Postage & Delivery	8,345.30		8,345.30
6270	Professional Service Fee	11,619.00		11,619.00
6290	Rent	79,338.73		79,338.73
6300	Repairs & Maintenance	3,715.92		3,715.92
6330	Seminar Expenses	3,870.00		3,870.00
6336	Storage Expenses	1,499.63		1,499.63
6242	Supplies	19,482.63		19,482.63
6700	Taxes - Other	1,390.00		1,390.00
6565	Taxes - Payroll	37,869.82		37,869.82
6345	Telephone Expenses	16,830.07		16,830.07
6380	Travel Expenses	7,143.96	(7,143.96) (d)	0.00
6390	Utilities Expenses	16,159.47		16,159.47
	Total Indirect Cost	1,288,799.06	(69,931.33)	1,218,867.73
	Direct Labor	653,796.27		653,796.27
6340	Direct Expense-Subconsulting Fee	220,244.32		220,244.32
	Total Direct Labor	874,040.59	0.00	874,040.59
	Overhead Rate			139.45%

LS Engineering Associates Corporation

Overhead Schedule

For the Year Ended

December 31, 2009

Certification:

The above schedule was prepared in compliance with the Federal Acquisition Regulations Subpart 31.2

Signature: _____

(Company Official or Independent Accountant)

LS Engineering Associates Corporation

Overhead Schedule

For the Year Ended
December 31, 2009

Notes To Overhead Schedule

(a) Adjustment to remove unallowable advertising expenses per FAR 31.205-1

(b) Adjustment to remove unallowable interest expense per FAR 31.205-20

(c) Adjustment to remove unallowable entertainment cost per FAR 31.205-14

(d) Adjustment to remove unallowable travel and per diem cost per FAR 31.205-46

(e) Adjustment to remove unallowable contributions or donations per FAR 31.205-8

(f) Adjustment to remove unallowable fines and penalties per FAR 31.205-15

SECTION E – Engineering & Technical Qualifications

Mr. Castle will be the Project Manager. CASTLE will be providing two full time inspection teams and engineering services for the contract. Pennoni & Associates, Inc. (PENNONI) will also be providing certified commercial divers with structure inspection experience to the dive teams. This will allow the CASTLE team to provide four inspection teams when necessary to meet any scheduling constraints that the Authority may have. All members of the dive teams have TWIC cards to meet Homeland and Authority requirements. LS Engineering will be providing engineering expertise and supplemental inspectors if needed. LS Engineering has a long standing relationship with the Authority and will be bringing this knowledge to the team to provide the Authority with continuity in the working relationship with their consultants.

Project Manager – Mr. William Castle, PE. Mr. Castle is the founder and President of W.J. Castle, P.E. & Associates, P.C., an Engineering Company specializing in marine structures, bridge, structural underwater construction and rehabilitation, Fathometric, imaging sonar and hydrographic survey of various marine structures. Mr. Castle has over 40 years of experience in civil/structural engineering and has worked throughout the east coast, working on projects from Massachusetts to Florida. As a ADC-I certified commercial diver and licensed PE Mr. Castle has performed over 1500 underwater structural condition inspections in his career. Mr. Castle brings a full scope of experience and technical knowledge to lead this project. Mr. Castle has managed projects as small as single span bridge rehabilitations to complete commercial dock demolition and reconstruction projects.

Professional Engineer Divers. CASTLE and our inspection team subconsultant, Pennoni Engineering, have Engineer Divers on staff and our seasoned civil engineers have specialized expertise in structural and geotechnical engineering providing a superior understanding of the complex environment in which waterfront structures interact with applied loads. Each of our divers is commercially trained including industry recognized training certifications and current medical and safety certifications. Further, each of our engineer divers is experienced in inspections, assessments, analysis, repair design, and repair cost estimates for waterfront facility programs.

Commercial Diving Technicians. The Castle Team's diving operations are established to provide our services regardless of conditions and we routinely perform inspections in deep water, swift current, sub-freezing temperatures, elevated structures and confined spaces. CASTLE and Pennoni offer a specialized group of commercial divers who are also trained, experienced engineering technicians. These personnel provide cost effective and balanced inspection teams that are suited to access and inspect facilities in the most safe and efficient manner.

Support Staff. CASTLE also offers a support staff of stenographic, computer aided design and drafting (CADD), geographic information system specialists and database designers to efficiently provide enhanced electronic reports, drawings, 2D and 3D renderings and database management.

The Castle Team's underwater inspection teams have performed thousands of inspections led by Engineer Divers and supported by staff commercial divers who are experienced in both underwater inspections and advanced commercial diving practices. The teams are equipped with the latest surface supplied air (SSA) and SCUBA diving gear, communications equipment, and specialized underwater equipment required to perform Level I, II and III inspections in the most safe and efficient manner possible. Adverse conditions are routinely overcome utilizing dry suits, hot water systems, recompression chambers, person-access equipment and experience based knowledge of working in extreme environments.

Organization Chart

The Port Authority of NY & NJ – Request for Proposals for Marine Condition Surveys of Piers and Waterfront Facilities as Requested on a "Call-In" Basis During 2013 (RFP# 30225)

PORT AUTHORITY NY & NJ

PROJECT MANAGER / PE DIVER
*+~ William J. Castle, PE, SE *(WJC)*

PROJECT ENGINEER / QA-QC
*~ Richard Parisi, PE *(WJC)*

LEGEND:
* Resume Provided
+ NHI 130091 Underwater Inspection
~ NHI 130055/130053 Bridge Inspection (or equivalent)

FIELD CREWS

OFFICE/REPORTS

ENGINEER/ QA-QC
*~ Jennifer Laning, PE *(PAI)*

TEAM 1 - (*WJC*)
*+~ William J. Castle, PE, CBSI Team Leader
*~ + Katherine Kelly, EIT, CBSI
*~ Andrew Hummers, PE, CBSI

TEAM 2 – (*WJC*)
*~ Richard Parisi, PE, CBSI Team Leader
* ~ Steven Gardner, EIT, CBSI
*~+ Mark Kremper, CBSI

TEAM 3 – (*PAI*)
*~+ Mark Sayger, PE, CBSI Team Leader
* Al Nawrocki, CWI/NDT
~+ Charles Ahrens, EIT, CBSI

TEAM 4 – (*PAI*)
*~ + Joseph Challburg, EIT, CBSI Team Leader
~ + Nicholas Ward, CBSI
Frank Lasch, ADCI

REPORTS/ENGINEERING
~ Andrew Hummers, PE *(WJC)*
~ Steven Gardner, EIT *(WJC)*
~ Cynthia Davis, CBSI *(WJC)*
*~ Kim Law, PE *(LS)*
*~ King Lee, PE *(LS)*

COMPANIES:
W.J. Castle, PE & Associates, P.C. – *(WJC)*
Pennoni Associates Inc. – *(PAI)*
LS Engineering – *(LS)*

WILLIAM J. CASTLE, P.E., S.E., F.ASCE

Team Leader/Manager/Diver

W.J. Castle PE & Associates

EDUCATION

- Associate Degree in Civil Engineering, Pennsylvania State University - 1966
- Post Graduate Courses, Hofstra University, NY

PROFESSIONAL AFFILIATIONS

- New Jersey Society of Professional Engineers (NJSPE)
- American Society of Civil Engineers (ASCE)
- American Concrete Institute (ACI)
- Association of Diving Contractors International (ADC)
- Transportation Research Board (TRB)
- Association of State Dam Safety Officials (ASDSO) American Institute of Steel Construction (AISC)
- Historical Diving Society (HDS)
- COPRI of ASCE
- Florida Society of Professional Engineers
- Delaware Valley Society of Professional Eng. - DVASE
- National Association of Civil Engineers

REGISTRATIONS & CERTIFICATIONS

2011 / Professional Engineer – Virginia #049047

2008 / Professional Engineer - Delaware #15735

2006 / Structural Engineer – #1079- 0705

1988 / Professional Engineer - Florida #39707

1984 / Professional Engineer - Maryland #13701

1978 / Professional Engineer - New York #055780-1

1977 / Professional Engineer - New Jersey #23626

1973 / Professional Engineer - Pennsylvania #019589

1977 / Certified Diver w/Commercial Diver Training-ADC

2008 / NHI 130053A Bridge Insp. Refresher Training

2012 / NHI 130091 Underwater Bridge Inspection

2012 / NYSDOT 5 Day Bridge Insp. Course

PROFESSIONAL EXPERIENCE

W.J. Castle, PE. & Associates, P.C.-1983 to Present

Mr. Castle is the founder and President of W.J. Castle, P.E. & Associates, P.C., an Engineering Company specializing in bridge, structural underwater construction and rehabilitation, Fathometric, side scan sonar and hydrographic survey of various marine structures. W.J. Castle is located in Hainesport, New Jersey and performs professional services in New Jersey, New York, Pennsylvania, Delaware, and Maryland.

As the Company President, he is responsible for all general and administrative operations of the firm and supervision of all Structural Engineering and Diving Operations including design and inspection of bridges, buildings, and marine structures. Additional responsibilities include project scope development, refinement, manpower allocations, development of underwater inspection equipment, preliminary and final design of structures and specifications for projects.

Newport Pell Bridge – 2012 Underwater Inspection and Condition Survey: William J. Castle, P.E., S.E./Certified Diver: Primary person responsible for the Newport Pell Bridge – Underwater Inspection and personally provide professional services as certified diver.

Substructure Repairs for the Walkway over the Hudson: In 2010 W.J. Castle was retained to provide engineering support services for the Poughkeepsie Railroad Bridge which had been converted to a pedestrian bridge crossing the Hudson River "Walkway over the Hudson".

Underwater Inspection and Survey of NYSBA Bridges on the Hudson River: Mr. Castle was the Project Manager and on site Professional Engineer for the underwater inspection of the Newburgh-Beacon, Mid-Hudson, Rip Van Winkle and Kingston Rhinecliff Bridges.

Sussex County Bridge K03 Inspection, Repair Design and Construction Inspection 2010-2011: Mr. Castle was the Project manager for this project and personnel performed the initial underwater inspection that the repair design was based upon.

Underwater Inspection and Repair Design of GSP Bridges: Mr. Castle was the Project Manager for the underwater inspection of the bridges over Matawan Creek and Cheesequake Creek and oversaw the repair design for those bridges.

Biennial Underwater Inspection & Fathometric Survey of Goethal's Bridge - New York, NY: Mr. Castle was the Project Manager and personally performed the underwater inspection of Goethals Bridge. The inspection of the multi-span thru truss bridge included the six (6) concrete piers. Soundings were taken, a fathometric survey was taken around the two (2) main piers and NDT testing was performed at both the north and south steel dolphins at Pier C.

Underwater Inspection of Three Long Island Railroad Bridges: In 2008 Mr. Castle was retained by the MTA Long Island Rail Road to inspect the long Beach Branch #58-0-191 over Powell Creek; Long Beach Branch #58-0-205 over Hog Island Channel; and The Dutch Kills Creek Drawbridge #25-0-008 a two span steel through-truss bridge.

Underwater Inspection of the Norfolk Southern Corporation Bridge 2.07: Mr. Castle was retained to perform the underwater inspection of Bridge 2.07 over the Delaware River in Delair, New Jersey. The inspection was performed at Piers 2, 3, 4a, 4b, 5a, 5b, 6 and 7 to discover deterioration or scouring activity.

Underwater Inspection of 5 Piers for Delaware River Waterfront Corporation - Philadelphia, PA: Mr. Castle was the Project Manager and Lead Diver for the underwater inspection of Main Pier, Chart House Pier, Connecting Pier, Piers 9 and 11.

Emergency Inspection & Debris Removal Of Collapsed Fender System from the Delaware River: (Bridge Spanning Between Tacony, Pennsylvania – Palmyra, New Jersey): Mr. Castle was the Project Manager retained by the Burlington County Bridge Commission to perform an emergency underwater inspection of the timber fender system at Pier E of the Tacony-Palmyra Bridge. All engineering services required to successfully locate, attach and remove submerged debris were performed. Castle was responsible for all field supervision and construction management during the process of removing the fender debris.

RICHARD A. PARISI, P.E.

Lead Engineer / QA/QC

W.J. Castle PE & Associates

EDUCATION

- BS Engineering, Cornell University – 1982 Dean's List 3 semesters
- Chi Epsilon Civil Engineering National Honor Society

PROFESSIONAL AFFILIATIONS

- Member American Society of Civil Engineers (ASCE)
- Member American Concrete Institute (ACI)
- Member Pre-cast/Pre-stressed Concrete Institute (PCI)
- Pennsylvania Society of Professional Engineers (PSPE)

ACTIVE REGISTRATIONS

- 2002 / Professional Engineer - Florida #59082
- 2003 / Professional Engineer - Massachusetts #45333 Structural
- 1988 / Professional Engineer - Pennsylvania #037443
- NHI National Bridge Inspection Standards Certified Inspector (2010 renewal)
- 2012 (Pending) NYSDOT 5 Day Bridge Inspection Course

PROFESSIONAL EXPERIENCE

W.J. Castle, P.C. & Associates, P.C. – Engineer *2007- Present:* Primary Responsibilities: Project management and over-see engineering projects, review and develop designs, assist with bridge inspection including underwater, assist in preparing construction bids and engineering proposals, develop new clientele based upon our work experience and previous contacts.

Newport Pell Bridge – 2012 Underwater Inspection and Condition Survey-
Project Engineer/QA-QC for the Newport Pell Bridge –Provided supervision during the Underwater Inspection and performed QA/QC for report submission

NJDOT NBIS Bridge Inspection of 32 Sussex County Bridges – 2nd Cycle (2009)
NJDOT bridge inspections of 32 Sussex County bridges. Inspections followed NJDOT NBIS standards. Inspections included underwater inspections as well as dye penetrant NDT inspections. All reports and PONTIS files were updated as per NJDOT.

PENNDOT District 8-0 Underwater Bridge Inspections
Team leader for underwater inspections of 35 bridges, 176 substructure units. Inspections included PennDOT BMS2 data and reports.

Delaware River Port Authority (2008)- Project Engineer-Performed the underwater inspection and Fathometric Survey of the Ben Franklin Bridge.

Miles Creek, Salem County Tide Gate Replacement - Design of twin cell concrete box culvert and tide gate replacement for an existing wooden tide gate. Design included temporary cofferdams and creek bypass flow. All permits and structural design was performed. Richard A. Parisi, P.E.

Conrail (2011)- Project Engineer/Sonar Tech- Performed underwater Scanning Sonar for Norfolk Southern Railroad Bridge No. 2.07 over Delaware River.

PSE&G Timber bridge over Mathews Branch, West Deptford, NJ - Team leader for complete inspections of timber bridge in tidal creek. Inspection included report and analysis of existing structure to determine current capacity. NJDOT standards were used.

USAC 2009- Project Engineer/Sonar Tech.- Performed the underwater inspection and engineering analysis for the removal of the timber jetty located in Cedar Creek and Mispillion River in Slaughter Beach, Delaware. Side Scan Sonar was used to detect any remaining sections and document the work was completed in accordance with USACE requirements.

Underwater Inspection and Survey; PA/NJ Turnpike Bridge – Team Leader for the underwater inspection and survey of Structure No. NJTPA-P 0.00 Penn. Extension NJ Turnpike over Delaware River located in Bucks County, PA – Burlington County, NJ.

Sussex County Bridge K-03 - Substructure Rehabilitation – Project Engineer - Provide the engineering design services related for sub-structural rehabilitation of county bridge K-03 County Route 607 over River Styx in the Borough of Hopatcong. Bridge plans and specifications were developed in accordance with NJDOT and Sussex County regulations and standards. The plans and specifications are to be sent out to Bid in October 2010.

Underwater Inspection and Substructure Repair Design - Garden State Parkway Bridges Btw. MP 28-123 - Contract #P100.194 – Team Leader for the underwater inspection of two bridges over the Matawan Creek and provided a report including recommendations. W.J. Castle also performed the inspection of four bridges crossing the Cheesequake Creek. Including in the contact is the drawings for the pile repair jackets for both timber and concrete piles and the repair design for the inspected bridges. This project is on-going and is estimated to be completed by the end of this year.

In-Depth Underwater Inspection Tioga Marine Terminal 1 - Philadelphia Regional Port Authority – Team Leader for the in-depth underwater inspection and evaluation of the Philadelphia Regional Port Authority Tioga Marine Terminal 1 located at Tioga Street and Delaware River in Philadelphia, Pennsylvania. The bulkhead was inspected from the cap down for any deterioration or areas for repair. The bulkhead is constructed of circular steel sheet pile cells with a concrete cap. It is anticipated that repair plans are to be developed from this inspection.

Underwater Inspection Scour Critical - D.R.J.T.B.C. Bridges - W.J. Castle, P.E. & Associates, P.C. is contracted to perform the underwater inspection of eight (8) Delaware River Joint Toll Bridge Commission Bridges spanning the Delaware River between New Jersey and Pennsylvania. Our Company performed the inspection of these bridges in 2005 and an additional inspection in 2006 after the extensive flooding. D.R.J.T.B.C. anticipates the repair and/or rehabilitation of some or all of these bridges if required in the near future.

Conrail - Emergency UWI of railroad bridge over Mantua Creek, Paulsboro (2009)

Vane Brothers-Duck Island Terminal - Design and repair of damaged dolphin @ Duck Island Terminal, Trenton (2009)

National Park Service-Vanasse Hangen Brustlin, Inc - UWI Services Level II Inspection for Georges Island, Boston Harbor (2009)

W.J. Castle PE & Associates

ANDREW HUMMERS, P.E.

Design Engineer

EDUCATION

Bachelor of Science, Civil Engineering, Rutgers University - New Brunswick, NJ, 2005

AFFILIATIONS AND CERTIFICATIONS

2011 Professional Engineer – Pennsylvania # PE078699

American Society of Civil Engineers (ASCE), 2002

Professional Association of Dive Instructors (PADI), 2005
Advanced Open Water Certification, 2006

NSS-CDS Cavern Certification, 2008
NHI 130055 Safety Inspection of In-Service Bridges

PROFESSIONAL EXPERIENCE

W.J. Castle, P.C. & Associates, P.C. – Structural Engineer - *2007-Present*

Underwater Inspection of Throgs Neck Bridge, New York, NY – 2012: Assisted with underwater inspection of steel multi-span suspension bridge.

NJTransit Underwater Inspection of In-Service Bridges, NJ 2012: QA/QC review of underwater inspection reports for misc. rail bridges.

Lakeside Estates, NJ - 2012: Structural inspection of timber dam and bridge at private lake community.

Newport Pell Bridge – 2012 Underwater Inspection and Condition Survey: Project Engineer for the Newport Pell Bridge –Provided supervision during the Underwater Inspection

TBTA 2007: Project Engineer on the underwater inspection and Fathometric Survey of the Marine Parkway Bridge and Cross Bay Boulevard Bridge project

Beesley's Point Bridge (U.S. Rt. 9) Atlantic County, NJ-Dec. 2007: Topside inspection of (21) simply supported steel girder span bridge; and bridge over Drag Channel. Topside inspection of (98) simply supported steel girder approach spans and (1) double-leaf bascule span over Great Egg Harbor Bay

Cross Bay Blvd. & Marine Parkway Bridge / New York, NY - Nov. 2007: Assisted with preparation of Hydrographic Surveys

Trenton Marine Terminal Seawall Repair Design: Retained to redesign the repairs for a 1200 L.F. concrete low deck structure on the Delaware River located in Trenton, New Jersey.

Cofferdam Design for GSP Bridges: Designed steel sheet cofferdams for the construction of abutments for several Garden State Parkway Bridges. These designs included GSP northbound and southbound bridges over Oyster Creek, South Branch of Forked River, Middle Branch of Forked River, and North Branch of Forked River.

Penndot Emergency Underwater Bridge Inspections: Assisted in the scour evaluation and underwater inspection of several bridges.

Salem County Underwater Bridge Inspections: Assisted in the underwater inspection of several bridges.

Sussex County Bridge Inspections: Assisted in the underwater inspection of several bridges.

Crescent Road Bridge / West Milford, NJ - Jun. 2011: Design engineer for replacement of municipal bridge. Coordinated permit acquisition with NJDEP and Highlands Council.
Quay Pier / Philadelphia, PA - Nov. 2010: Design engineer for rehabilitation of existing pier. Coordinated and researched permitting with U.S. Army Corps.

Bridge 4C-7 / Camden County, NJ - Jun. 2010: Assisted with preliminary structural design and NJDEP permit investigation for concrete arch bridge rehabilitation.

Hardesty & Hanover- Structural Engineer – ASCE Grade II *- 2005-2007*

South First Street Bridge/Union City, NJ: Structural detailing of new single span fixed bridge to replace existing bascule span. Utility impact assessment and coordination.

NJ Transit Bridge Inspections/ Various Locations, NJ: Assisted with the structural inspection and report preparation for various movable and fixed rail bridges

Route 36 Pedestrian Bridges/ Sea Bright, NJ: Assisted with structural design and detailing of two new multi-span pedestrian bridge. Structural design and detailing of reinforced concrete abutments and retaining walls.

Niantic River Drawbridge/Old Lyme, CT: Assisted with structural design and detailing of reinforced concrete control house and piers.

Buckshutem Road Bridge/Cumberland County, NJ: Assisted with design of new single-span, pre-stressed box beam bridge. Prepared Special Provisions and provided construction support services.

Portal Bridge/Secaucus, NJ: Design and detailing of four additional structural steel C & S platforms.

Spuyten Duyvil Bridge/New York, NY: Assisted in detailing new structural steel fender system.

Union Interlocking Wall/Union, NJ: Assisted with structural inspection of 300-foot concrete retaining wall.

STEVEN GARDNER, EIT

Structural Engineer/Diver
ASCE Grade II

W.J. Castle PE & Associates

EDUCATION

Rowan University, B.S. Civil Engineering (2010) Certified Engineer in Training
Minnesota Commercial Divers Training Center (2012) Certified Commercial Diver

AFFILIATIONS AND CERTIFICATIONS

ADC – Tender/Diver Certification No. 45758
Kirby Morgan Helmet & Band Mask Operator Certification No. I-09238
Basic Bridge Safety Inspection Course #56 -2011 (same as NHI 130055)
Advanced PADI Certified Diver
ASCE Member
Middletown Office of Emergency Management
NYC DOT Track Safety Program
DCBC
OSHA 10 hr. Course

ENGINEERING DESIGN PROJECTS

Engineers Without Borders (EWB) (The Gambia, North West Africa)

First Place Rowan University Best Clinic Award – Traveled to The Gambia in January 2010 to teach villagers proper road maintenance techniques and procedures.

Dam Removal and Modeling – Surveyed Musconetong River to gather data on dam removal effects. Designed and built a 300 ft3 flume, surveying equipment and frame for use in modeling.

Crane and Truss – Analyze and calculate different truss designs and their load bearing capacities.

PROFESSIONAL EXPERIENCE

W.J. Castle, P.E. & Associates, P.C., Structural Engineer – *August 2010 – Present*

Emergency Underwater Inspection/Scour Evaluation of Penndot Bridges: Diver/Inspector for Emergency Underwater Inspection and scour evaluation of Penndot bridges. These bridges ranged in size from single span to 20+ span bridges over the Susquehanna River. The inspections included scour and undermining inspections.

Underwater Construction Inspection of Sussex County Bridge K-03: Diver/Inspector for construction inspection of Sussex County Bridge K-03. Assisted in the development of repair details for the bridge according to AASHTO standards, and conducted monthly underwater inspections of the contractors work to ensure it adhered to project specifications.

Emergency Underwater Inspection/Location of 8th Street Bridge in Wilkes-Barre, PA: Engineer Diver/Inspector for the underwater Inspection/Location of the collapsed piers and truss sections of the old 8th Street bridge in the Susquehanna River near Wilkes-Barre, PA. Drafted site plans and other detailed drawings of the inspection findings on-site to provide to contractor

in order to safely remove the collapsed structure. Conducted a Fathometric survey of the river to determine the extent of scour and any potential threats to the new 8th Street Bridge.

Underwater Inspection for Ben Franklin Bridge: Engineer Diver/Inspector for the routine underwater inspection of the main piers of the Ben Franklin Bridge on the Delaware River. Assisted in the Fathometric survey of the waterway and generated the associated detailed inspection report and drawings.

Underwater Inspection for ConRail: Engineer Diver/Inspector for the routine underwater inspection of a 4 span ConRail bridge over the Cooper River in Camden NJ. Assisted the project engineer in determining the cause of failure for the main pier, and generated a detailed report issuing our findings and recommendations.

Delaware River Waterfront Corporation - Pier 11 / Race Street Pier (2011-2012): Designed the proposed concrete decking and support beams for several large tree planter boxes. Performed the survey for located the planter boxes.

Underwater Inspections for New Jersey Transit: Engineer Diver/Inspector for the routine underwater inspection of three NJ Transit bridges in Southern New Jersey. Generated the required detailed inspection report and drawings.

Substructure Repairs for the Walkway over the Hudson: Retained to provide engineering support services for the Poughkeepsie Railroad Bridge which had been converted to a pedestrian bridge crossing the Hudson River "Walkway over the Hudson".

West Milford Bridge Replacement Design: Aided in the development of the engineering calculations and bridge replacement design of the 20'-0" bridge. Also aided in the permit application submittal.

Centerton Lake Dam Rehabilitation Design: Aided in the Dam and weir rehabilitation design including the development of Hydrologic and Hydraulic Analysis. Aided in the development of the permit application including all calculations and design requirements.

Delaware River Waterfront Corporation - Pier 11 / Race Street Pier: Designed the proposed concrete decking and support beams for several large tree planter boxes. Performed the survey for located the planter boxes.

Salem County Bridge Inspections Aided in the underwater inspection for various bridges in Sussex County, NJ.

Fay Spofford & Thorndike, New York, NY - *May 2008 – September 2009*

Various Projects -

Inspected terminal buildings at JFK Airport in Jamaica Queens, NY.

Performed support services, including data processing, 2D design in AutoCAD and MicroStation on several projects including Yankee Stadium Garage and NYC subway station and track inspections.

Completed NYC/DOT Track Safety Training program and performed inspections of stations and tracks.

KATHERINE KELLY

E.I.T./Certified Diver/Team Leader UWI

W.J. Castle PE & Associates

EDUCATION

- 2007 - Bachelor of Science, Civil Engineering, Worcester Polytechnic Institute – Worcester, MA
- Surface Supplied Air Diving, Divers Academy International – Erial, NJ

AFFILIATIONS & CERTIFICATIONS

- Engineer in Training, MA #21872 (2007)
- Association of Commercial Diving Educators, Commercial Diver #10843 (2012)
- Association of Diving Contractors international, Entry Level Tender / Diver #44364
- SCUBA Diving International, Open Water Scuba Diver #428060 (2011)
- NHI Underwater Bridge Inspection 130091 (2012)
- NHI – Fracture Critical Inspection Techniques for In-Service Bridges (2008)
- KMDSI Hat Inspector Certification
- Red Cross First Aid & CPR
- DAN Oxygen Provider
- NDT Magnetic Particle & Die Penetrant Classroom Certification
- API RP2D Rigger Qualification
- HAZWOPPER 40hr Hazardous Site Worker Training
- OSHA 10hr Safety Training (2008)

PROFESSIONAL EXPERIENCE

As Team Member / Diver, Ms. Kelly is responsible for general coordination and execution of dive operations as well as administrative support in office. Diving Operations include design and inspection of bridges, and marine structures. Additional responsibilities include project report development, refinement, and assistance with the preliminary and final design of structures and specifications for projects.

In addition, Ms. Kelly has extensive experience working with state agencies, as indicated in her professional experience itemized below.

W.J. Castle, P.C. & Associates, P.C. – E.I.T. *2012- Present*

NJ Transit – Underwater Bridge Inspections of Moveable Bridges – New Jersey

Team member and diver for underwater bridge inspections of NJ Transit moveable railroad bridges throughout the state. Inspections varied from 1-18 substructure units in water. Diving conditions included fast tidal waters, zero visibility and depths up to 55' deep. Prepared inspection reports and channel bottom profiles from sounding information.

Triborough Bridge and Tunnel Authority – Underwater Bridge Inspection – New York City, NY (2012): Team member and diver for underwater bridge inspections of multi-span TBTA bridges, including fathometric and multi-beam sonar surveys.

Delaware River Waterfront Corporation – Underwater Inspection of Festival Pier – Philadelphia, PA (2012): Team member for underwater inspection of Festival Pier, which partially collapsed. Work included evaluation of continued deterioration and settlement of structural elements, and providing recommendations for the useful lifespan and saefty restrictions.

Delaware River Port Authority – Underwater Bridge Inspection – Philadelphia, PA/Camden, NJ (2012): Team Member / Diver for underwater inspection of Ben Franklin Bridge including fathometric survey.

NJ Transit –Underwater Bridge Inspections –Burlington County, NJ (2012): Team member and dive tender for underwater bridge inspections of timber, steel and composite bridges.

Rhode Island Turnpike and Bridge Authority – Newport Pell Underwater Bridge Inspection – Newport, RI (2012): Team member and dive tender for a Level II underwater bridge inspection of the Newport Pell Bridge. Inspection included 49 substructure units up to 130' deep.

Army Corp of Engineers – Underwater Bridge Inspection at Raystown Lake - Raystown, PA: Team Member for the underwater bridge inspection of a steel multi-beam structure with undermining at the abutments.

Spirit of Philadelphia – Design/Construction of New Platform: Designed a platform for passenger access from the pier to the Spirit of Philadelphia ramps. Provided construction support for the installation.

Neshaminy Contractors – General Construction Support Services: Designed a temporary shoring system for a culvert construction. Designed a support system for a folding door installation.

Independence Seaport Museum – Lifting Plan, Philadelphia PA

Analyzed the lifting plan for the removal of several boats from the second floor of the museum.

AECOM – Structural Engineer/Bridge Inspector 2008-2011; MassDOT – Statewide Bridge Inspections: Team Member inspecting statewide bridge structures including prestressed concrete box girders, steel trusses, reinforced concrete arches, reinforced concrete T-beams, and steel girders. Structures varied in size from local roads to major interstate highways. Used the 4D databases in creating and updating routine, special member and fracture critical inspection reports. Used manlifts, bucket trucks and under-bridge inspection units ("Snoopers") for access.

MassDOT – Ratings

Performed load rating analysis on a variety of concrete and steel structures using Virtis and hand calculations. Assisted in the load rating analysis on a multi-span steel girder structure using ANSYS.

Massachusetts Department of Conservation and Recreation – Statewide Inspections

Team member inspecting park system bridge structures including prestressed concrete box girders, steel trusses, reinforced concrete T-beams, timber bridges and steel girders.

RIDOT Statewide Inspection Program

Team member inspecting bridge structures including prestressed concrete box girders, steel trusses, reinforced concrete arches, reinforced concrete T-beams, timber bridges and steel girders. Structures varied in size from local roads to major interstate highways. Team member inspecting bridge structures over electrified Amtrak railroads including steel girders and timber bridges. Used rail mounted lift equipment for access during night work. Used the Pontis databases in creating and updating routine inspection reports.

MARK KREMPER

NBIS Diver/Tender

W.J. Castle PE & Associates

CERTIFICATIONS

- Certified in Chance Anchor Installation (2012)
- 10-hour OSHA Training Course in Construction Safety & Health (2010)
- Bridge Safety Inspection Training and Certification – (PennDOT 2-1/2 weeks) (2001)
- NAUI & ASHI First Aid & CPR Certified (2001)
- NHI 130055 – Basic Bridge Safety Inspection Course (2009)
- American Red Cross Training in First Aid, CPR/AED & Bloodborne Pathogens (2010-2012)
- DAN Oxygen First Aid for SCUBA Diving Injuries (2001)
- Association of Diving Contractors International (ADC) Certified Surface Supplied Air Diver (2012)
- NHI 130091 Underwater Bridge Inspection (2012)

DIVING SKILLS

- Dive Supervisor
- Surface Supplied Air Diving
- Bridge/Pier Inspections
- Underwater Video Inspections
- Lowrance Fathometric Systems Operations
- Salvage
- Hot Water Systems
- Underwater Welding/Burning
- Rigging to API Standard
- Hat Maintenance
- Job Hazard Analysis

RESPONSIBILITIES

- Project Supervisor / Manager / Dive Supervisor / Diver / Tender
- Develop methods of procedure for project planning
- Coordinate personnel, equipment and supplies
- Maintain ongoing communication with subcontractors and client representatives regarding all aspects of projects
- Report daily progress to administrative office via telephone and internet
- Maintain daily log of operations
- Record and submit weekly time sheets for personnel
- Insure and monitor optimum safety practices

PROFESSIONAL EXPERIENCE

W.J. Castle, P.C. & Associates, P.C. – Project Superintendent *2001- 2008 & 2012 – Present*

- **Newport Pell Bridge – 2012 Underwater Inspection and Condition Survey (Present):** Mark Kremper, NBIS Diver/Tender – Perform and assist in the underwater inspection and condition surveying of the Newport "Pell" Bridge in Rhode Island.

- **Underwater Inspection and Survey of NYSBA Bridges on the Hudson River (2006)** Mr. Kremper – NBIS Diver/Tender and performed underwater inspection of the Newburgh-Beacon, Mid-Hudson, Rip Van Winkle and Kingston Rhinecliff Bridges.

- **Underwater Inspection & Fathometric Survey TBTA Bridges (2006)**
  Mr. Kremper – NBIS Diver/Tender and performed underwater inspection and fathometric survey of Marine Parkway Bridge and Cross Bay Boulevard Bridge.

- **Underwater Inspection of Georges Island Facilities (2009)** Level II underwater inspection of Georges Island Mr. Mr. Kremper – NBIS Diver/Tender and performed a condition inspection of the pier structures of Georges Island. A 28ft. dive boat and surface supplied air system was utilized, as well as low tide shore based inspection of sea wall.

- **Underwater Bride Inspections – Delaware River Port Authority (2008)**
  Mr. Kremper – NBIS Diver/Tender and performed the underwater inspection of the Ben Franklin Bridge, a multi-span suspension bridge with two solid concrete piers in the water. Both piers were inspected from high waterline down to the channel bottom for scaling, erosion, cracks, spalling and scour. The timber fender system at the West Pier was also inspected. Mr. Kremper was also on the team who performed the underwater inspections of the Commodore Barry, Betsy Ross & Walt Whitman Bridges.

- **Sussex County Bridge K03 Inspection, Repair Design and Construction Inspection 2010-2011**
  Mr. Kremper – NBIS Diver/Tender and performed the initial underwater inspection that the repair design was based upon.

- **Biennial Underwater Inspection & Fathometric Survey of Goethal's Bridge - New York, NY (2008)**
  Mr. Kremper – NBIS Diver/Tender and performed the underwater inspection of Goethal's Bridge. The inspection of the multi-span thru truss bridge included the six (6) concrete piers. Soundings were taken, a fathometric survey was taken around the two (2) main piers and NDT testing was performed at both the north and south steel dolphins at Pier C. Total cost of the project was $21,600.

- **Underwater Inspection of 5 Piers for Delaware River Waterfront Corporation - Philadelphia, PA (2009)**
  Mr. Kremper – NBIS Diver/Tender and performed the underwater inspection of Main Pier, Chart House Pier, Connecting Pier, Piers 9 and 11. Total cost of project was $100,000.

- **Underwater Inspection and Hydrographic Survey of 3 Burlington County Bridge Commission Bridges (2007)**
  Mr. Kremper – NBIS Diver/Tender and performed the underwater inspections of the Tacony-Palmyra, Burlington-Bristol & Riverside Delanco Bridges.

Jennifer C. Laning, PE

EDUCATION
- M.S./Drexel University/Civil Engineering/1998
- B.S./Rutgers University/Civil Engineering/1992

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS
- Registered Professional Engineer/NY, NJ, PA, DC, DE, MD, CT, VA, OH
- •• NHI Bridge Inspection Refresher Training (NHI 130053), 2010
- PennDOT Bridge Inspection Refresher Training, 2010
- Maryland Certified Temporary Traffic Control Manager, 2007
- Highway Bridge Design/Rating Using LRFD, 2001
- Seismic Design and Retrofit of Highway Bridges, 1999
- Inspection of Fracture Critical Members (NHI130078), 1998
- Load Rating of Vehicular and Railroad Bridges, 1998
- Safety Inspection Vehicular & Railroad Bridges (NHI 130055), 1995
- Graduate, USACE Philadelphia District Leadership Development Program, 2005

EXPERIENCE SUMMARY

Ms. Laning is a Senior Engineer in the Transportation Division with a primary focus in bridge inspections and project management. She serves Pennoni as a Bridge Inspection Practice Leader, headquartered in the Baltimore, Maryland office. Her responsibilities include project management and quality management of NBIS bridge and underwater inspection projects, coordination of relevant project requirements with clients, contractors, state and local traffic and transportation departments. She serves as NBIS team leader on multiple bridge inspections for local, state, and federal clients. As Practice Leader, she provides cohesive leadership for all Pennoni Bridge Inspection projects, ensuring that the project deliverables are consistent, technically sound and of high quality. As a Project Manager, she integrates assignments and work priorities of bridge inspection team members into a comprehensive plan and schedule to fulfill inspection commitments. Ms. Laning also performs Quality Assurance/Quality Control reviews on bridge inspection reports and related bridge rehabilitation and repair projects. Her background experience with the US Army Corps of Engineers is in bridge program management, rehabilitation and repair of bridges, coordination of projects with multiple agencies, leading multidisciplinary design teams, and bridge inspection.

REPRESENTATIVE PROJECTS

Post-Flood Emergency Underwater Bridge Inspections and Evaluations, Dauphin, Lebanon, Schuylkill Counties, Pennsylvania Department of Transportation, Agreement E02473 Project Manager for Post-Flood Emergency Underwater Inspections in Pennsylvania after an emergency request by PennDOT in September 14th, 2011. Work was conducted in Dauphin, Schuylkill, Adams, Lebanon and Juniata Counties (PennDOT Districts 8-0 and 5-0) to perform underwater inspections on more than 61 state owned bridges along the Swatara Creek. Also included in this contract were underwater inspections for county-owned structures in Dauphin County, Adams County and a privately owned structure at the Milton Hershey School. Two-member wading teams and four-member dive teams were mobilized to assess the in-water bridge units for flood-related scour, exposure and undermining, and make recommendations that included bridge closure, riprap repairs of scoured areas, and removal of accumulated timber debris from the waterway and adjacent to the bridge. A number of bridges had significant scour and undermining damage due to flooding. Several bridges had significant debris accumulation against the in-water piers, preventing access and inspection that could not be accessed immediately and required PennDOT to mobilize crews to remove

the debris prior to inspection. Additional duties included underwater inspections, probing inspections, preparation of reports and updating BMS2 with the applicable flooding data.

Maryland Transportation Authority, Physical On-Site Condition Inspection of MDTA Facilities (2008-Present) Project Manager/Team Leader for in-depth and fracture-critical NBIS inspections, underwater inspections, structure evaluation, preparation of reports and maintenance recommendations for the following facilities: JFK Facility (I-95), including the Tydings Bridge, FSK Facility (I-695), including the Francis Scott Key Bridge, the Seagirt Marine Terminal, the Harry Nice Bridge, the Bay Bridge (William Preston Lane Memorial Bridge) and the Fort McHenry Tunnel. Inspection of the 1.6 mile long Francis Scott Key Bridge included the use of snoopers, rigging, sky climbers, and bucket trucks to access the top chord, 185 lf above the deck. Inspection of the 4.9 mile eastbound and westbound Bay Bridge structures have included the use of snoopers and cable rigging to inspect deck girder and deck trusses. Inspectors have performed the inspection of the stiffening truss and continuous through truss portions of the eastbound Bay Bridge utilizing cable rigging, bucket trucks and manlifts. Inspection of the Fort McHenry Tunnels included inspection of the vehicular portion of the tunnel as well as the upper and lower plenums, vent buildings and retaining walls at the entrances to the tunnel bores. Work also included the development of a Bridge Management System (BMS) for the Authority, consisting of coordination with a database consultant, implementation of new inspection database and training of inspectors.

Underwater Inspection, Panhandle Bridge, Allegheny County Port Authority (Sept 2010) Project Manager responsible for the underwater inspection of the Panhandle Bridge over the Monongahela River in Pittsburgh. Working for GAI Consultants and the Port Authority of Alleghany County, our four person dive team inspected the three stone masonry piers in the river. Dive team performed the work in one day, diving in depths up to about 20 feet. Divers performed 100% Level I and 10% Level II underwater inspections, in accordance with FHWA guidance. The stone masonry piers were evaluated with a chipping hammer and inspected for cracking, spalling, and overstress such as crushing. Soundness of joint material was also checked. The masonry piers were also inspected for loose bricks and/or stones, as well as bulging/misaligned surfaces. The Panhandle Bridge, officially known as the Monongahela River Bridge, got its name because it was originally built for the Pennsylvania Railroad "Panhandle Division." This represents the portion of the rail line that ran out to Steubenville Ohio, thru the "panhandle" of Virginia (which is now West Virginia). The bridge carries the Port Authority of Allegheny County "T" light rail system into and out of the Pittsburgh subway line. The bridge shown in the photos was built in 1903. The original bridge was constructed in 1863.

Underwater Inspection, Southeastern Pennsylvania Transportation Authority, 2010 Project Manager/ QA/QC Manager for the underwater inspection of three regional rail line bridges located in southeastern PA. Divers performed 100% Level I and 10% Level II underwater inspections on stone masonry piers and abutments, in accordance with FHWA guidance. A total of three in-water stone masonry substructure units were evaluated with a chipping hammer and inspected for cracking, spalling, and overstress such as crushing. Soundness of joint material was also checked. The masonry piers were also inspected for loose bricks and/or stones, as well as bulging/misaligned surfaces. All three units had previously noted severe scour that required extensive documentation with soundings and measurements. The team provided detailed soundings around the footings of the substructure units to document the progression of the channel degradation.

Joseph L. Challburg, EIT

EDUCATION

- B.S.C.E./University of Delaware/Civil Engineering/May 2007
- US Army / Primary Leadership Development Course/2000

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

- Engineer-In-Training/DE/2006
- Safety Inspection of In-Service Bridges (NHI 130055)/2010
- Underwater Bridge Inspection (NHI 130091)/2011
- ADCI Surface Supplied Air Diver/35365
- SPRAT Level I Rope Access Technician/2009
- DAN On-Site Neurological Assessment
- DAN Oxygen First Aid for Scuba Diving Injuries
- Red Cross CPR/AED – Adult and Child
- Red Cross Standard First Aid
- DASET Confined Space

PROFESSIONAL AFFILIATIONS/ HONORS/AWARDS

- Pennoni Health and Safety Committee Member/Audit & Compliance Member/2009-Present
- Pennoni Health and Safety Committee Member/2008-Present
- DCES (Delaware Council of Engineering Societies) E Week Banquet Committee/2007-Present/Chair of Committee/2008-2011
- NSPE/President/University of Delaware Student Chapter/2006-2007
- ASCE/Current Member/Vice President for the University of Delaware Student Chapter/2006-2007

EXPERIENCE SUMMARY

Mr. Challburg is a Bridge Engineer, Commercial Diver, and Bridge Inspector for Pennoni's Transportation Division with more than 6 years of experience in bridge and underwater inspection. Has performed routine inspections, fracture critical inspections, underwater inspections, and in-depth inspections in Spain, Virginia, Maryland, Pennsylvania, Delaware, Connecticut, Indiana, Kentucky, Florida, and New Jersey. Serves as NBIS team leader on multiple bridge inspections for local, state, and federal clients. He has performed over 95 working dives as a Pennoni diver. Has conducted the inspection and evaluation of bridges, piers, wharves, fenders, dolphins, high mast lighting, marine walls, and sign structures. Special diving situations include differential pressure, intakes, contaminated water, drift & debris, zero visibility, and high velocity current.

REPRESENTATIVE PROJECTS

QA/QC Underwater Inspections for Bridge Pier Reconstruction at Hatem Bridge, Maryland Transportation Authority (2012) Team leader and engineer diver responsible for QA/QC underwater inspections and structure evaluation of bridge pier reconstructionspecific to the client's needs, daily reports and drawings for the Thomas J. Hatem Memorial Bridge carrying US40 over the Susquehanna River. Work effort required coordination with MDTA Field Engineers and the US Coast Guard.

NBIS Underwater Inspection of Commodore Barry Bridge over Delaware River, Delaware River Port Authority, PA and NJ (2012) Team leader, engineer diver & acting dive supervisor for underwater inspection with a four person dive team. Coordinated logistics of dive team performing the FHWA Level I and Level II underwater inspection on nine substructure units in the Delaware River, preparation of inspection report and associated fathometric survey, and QA/QC of the report. Conditions in the water included swift currents, debris, drift and low visibility. Work effort required coordination with DRPA Facility Administrators, DRPA Police, and the US Coast Guard.

Underwater Inspections, Burlington County Bridge Commission, New Jersey (2010, 2012) Team leader, engineer diver, and acting dive supervisor responsible for the underwater inspection of three Burlington County Bridge Commission Bridges for the 2012 NBIS Interim Inspections: Burlington-Bristol, Riverside-Delanco, and Tacony-Palmyra Bridges over the Delaware River. Work included NBIS inspection and evaluation of substructure members below the water, detailed CADD drawings, photographs, and hydrographic data upstream and downstream of the bridges, updating SI&A data, and QA/QC of reports.

Underwater Condition Assessment of Bridge Piers Using Sonar Imaging, Maryland Transportation Authority (2011-2012) Engineerdiver responsible for determining procedures on MDTA Sonar Imaging specific to the client's needs, capturing and processing sonar images using appropriate sonar equipment and software, underwater inspections, structure evaluation, and preparation of reports and recommendations for the William Preston Lane Memorial Bridge carrying US50 over the Chesapeake Bay and the Thomas J. Hatem Memorial Bridge carrying US40 over the Susquehanna River. Sonar imaging was performed on several piers for the Bay Bridge and also one pier at the Hatem Bridge. Work effort required coordination with MDTA Facility Administrators, MDTA Police, and the US Coast Guard.

Emergency Underwater Inspections, Statewide, Pennsylvania Department of Transportation(2012) Team leader andengineer diver responsible for emergency underwater inspections for PennDOT in Dauphin, Schuylkill, Adams, Lebanon and Juniata Counties (PennDOT Districts 3-0 and 8-0) after Hurricanes Irene and Lee. Work included underwater inspections on more than 61 state owned bridges along the Swatara Creek. Also included in this contract were underwater inspections for Dauphin County, Adams County and the Milton Hershey School. The bridges typically had significant damage due to flooding and there were several bridges with significant debris accumulation. The teams assessed the in-water bridge units for flood-related scour, exposure and undermining, and made recommendations to close the bridge, repair the scoured areas with riprap, or remove the accumulated timber debris from the waterway. Duties included underwater inspection, probing inspections, and preparation of reports.

Physical On-Site Condition Inspection of MDTA Facilities, Maryland Transportation Authority (2009) Team leader responsible for topside and underwater inspections, structure evaluation, and preparation of reports and maintenance recommendations for the following facilities: Seagirt Marine Terminal in Dundalk Maryland, the William Preston Lane Memorial Bridge, the Curtis and Bear Creek Bridges on I-695, the Francis Scott Key Bridge, and the Harry Nice Bridge. Underwater inspections were performed utilizing surface-supplied diving operations on the 1.6 mile long Francis Scott Key Bridge (11 in-water piers) and 1.7 mile long Harry Nice Bridge (76 in-water piers and bents) included the Level I and Level II underwater inspections on the in-water piers in depths up to 75 ft. Inspection of the Curtis and Bear Creek Bridges (four bridges, each approximately 3,600 lf) included 80 piers in the water. The Seagirt Marine Terminal included three wharfs and two relieving platforms, requiring that teams accommodate ongoing berthing operations. Underwater inspection work included preparing detailed CADD drawings, photographs and evaluation of substructure members below the water, and hydrographic data upstream and downstream of the bridges, as well as the inspection of fender systems and pier protection dolphins, updating SIA data, and preparation of reports. Four person surface-supplied dive teams utilized Pennoni's 26-ft custom dive boat to perform the inspections.

Post-Flood and Pre/Post-Construction Inspections, Naval Facilities Engineering Service Center, Nimitz Library and McNair Road Bridge,USNaval Academy,Annapolis, MD (2011) Team leader responsible for the structural inspection and evaluation of superstructure and substructure members, above and below the water, in accordance with NBIS and FHWA standards. Managed detailed inspection reports that included detailed CADD drawings, repair recommendations, and inspection photographs.Conducted topside inspection following Non-Permit Confined Space Entryrequirements.

Waterfront Inspections, US Army Military Ocean Terminal Concord, US Army Corps of Engineers, Engineer Research and Development Center (2011) Team Leader responsible for the Level III inspection of approximately 150 timber piles of Pier 3 at MOTCO, located at Port Chicago, in Concord, California. Pier 3 is approximately 4,370lf, consisting of approximately 5,040 piles. A pedestrian walkway adds approximately 630 linear feet of structure to the inspection work. The overall footprint of Pier 3 covers approximately 245,000 sqft of deck surface area. The underwater diving conditions consisted of 1-foot of visibility, current up to two knots, and tidal change of 4-feet.An OSHA approved six-person dive team, as well as an additional Registered Professional Engineer, conducted a structural inspection and evaluation in accordance with OSHA, FHWA, Code of Federal Regulations, and NBIS standards. The underwater portions of the inspection were performed using surface-supplied air. A detailed inspection report was submitted which included analysis of the waterfront facilities, as-built design plans, repair recommendations, and inspection photographs.

Alfred A. Nawrocki

EDUCATION
- A.A./Specialized Technology/American Institute of Drafting Inc.

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS
- AWS Certified Welding Inspector/Cert No 06060461
- ASNT Certified Level II / Magnetic Particle Testing
- ASNT Certified Level II / Ultrasonic Testing
- ASNT Certified Level II/ Dye Penetrant Testing
- ACI Certified Concrete Field Testing Technician/ Grade I
- PennDOT Certified Concrete Technician
- Certified Nuclear Density Gage Operator
- ICC Certified Special Inspector in Structural Welding
- ICC Certified Special Inspector in Structural Steel and Bolting
- State of New Jersey Licensed Special Inspector in Structural Welding
- State of New Jersey Licensed Special Inspector in Structural Steel Bolting

EXPERIENCE SUMMARY

Mr. Nawrocki has over nine years of quality assurance/control inspection and testing during structural steel erection, welding, nondestructive testing, structural steel fabrication and coatings; plus cast-in-place concrete construction, earthwork; foundations; and specialized testing. He is a Level II ASNT non-destructive testing inspector with extensive experience utilizing magnetic particle and ultrasonic testing methods.

REPRESENTATIVE PROJECTS

Inspection of Commodore Barry Bridge, Delaware River Port Authority
Straight beam ultrasonic inspection of the bridge pin connections performed in accordance with ASTM A388. Additionally, services were provided to verify third party independent report of defects found in electro slag welds using angle ultrasonic testing.

Inspection of the Thomas Hatem Memorial, Millard Tydings Memorial, William Preston Lane Jr. Memorial, and Harry Nice Memorial Bridges, Maryland Transportation Authority
Inspection Supervisor/ASNT level III/Senior Nondestructive Evaluation Inspector. Straight beam ultrasonic inspection of 184 fracture-critical pin and hanger assemblies performed in accordance with ASTM A388.

Harford County, Non-Destructive Testing, Bridge H-160
Non-Destructive Evaluation Inspector for the inspection of a historic iron truss. Looped eyebars located in the bottom chord of the truss were tested to confirm the presence of cracks. Performed magnetic particle testing to determine the presence of and subsequent length of cracks.Also performed UT testing on the truss pins. Access to the span was via climbing and ladder.

Maryland Transportation Authority, Physical On-Site Condition Inspection of MDTA Facilities
Non-Destructive Evaluation Inspector for the inspection of steel box girders throughout I-395 in Baltimore, MD. Performed magnetic particle testing to determine the length of cracks in box girder webs, connection angles and plates. Crack tip location guided the remediation procedure, usually consisting of hole drilling. Also confirmed the successful remediation, utilizing mag particle testing on the resulting hole.

Maryland Transportation Authority, Physical On-Site Condition Inspection of MDTA Facilities
Non-Destructive Evaluation Inspector for the inspection of 35 bridge-mounted sign structures throughout I-395 in Baltimore, MD. Assisted contractor by performingultrasonic testing to determine the length of anchor bolts in concrete parapet barriers.

Millard E. Tydings Memorial Bridge, Cecil and Harford Counties, MD
Resident Quality Assurance Inspector and Nondestructive Evaluation Inspector for structural repairs to the Millard E. Tydings Memorial Bridge carrying Interstate 95 over the Susquehanna River. Duties included working alongside the Contractor's personnel during the work to locate cracks (using magnetic particle testing), determining the extent (chase) cracks, assisting in monitoring the Contractor's efforts to arrest the cracks, and performing magnetic particle testing of the area after repairs were completed.

Inspection of Overhead Sign Structures, Delaware Department of Transportation, Agreements 1062 and 1347
Non Destructive Evaluation Inspector. Performed safety inspection of 250 overhead sign structures, cantilevered sign structures, high mast light poles, and traffic signal poles throughout the State of Delaware for five consecutive inspection cycles. Nondestructive testing services included visual welding inspection, straight beam ultrasonic testing of anchor bolts, and magnetic particle and dye penetrant testing of welds. Work also included an emergency magnetic particle inspection to assess impact damage on Bridge I-509.

NBIS Bridge Inspections Worldwide, Naval Facilities Engineering Service Center, East Coast Detachment
NDT Inspector responsible for inspecting, evaluating and rating bridges on Naval Facilities at Camp Pendleton, CA. Assignment included straight beam ultrasonic testing of 28 hanger pins on a steel multi-beam multi-span bridge located over San Diego Northern Railway (which carries AMTRAK) at the entrance to the base. Access to the pins required rail safety training and the use of a snooper.

Inspection of a Coal Conveyor Bridge, Norfolk-Southern Railroad, Ashtabula, OH
NDT Inspector for the straight-beam ultrasonic inspection of the 6 pins in a three-hinged arch structure carrying a coal conveyor over a waterway in Ashtabula, OH. Access to the pins required use of manlifts, rigging and a sky climber to reach the apex of the arch.

NBIS Bridge Inspection Program, Pennsylvania Department of Transportation, District 6-0, Philadelphia County, PA
NDT Inspector Performed straight beam ultrasonic inspection on 8 hanger pins on the double-decked cantilever Girard Point Bridge carrying I-95 in Philadelphia over the Schuylkill River. The pins had not been ultrasonically tested in the 30-plus years since the construction of the bridge. CSX crosses beneath several spans of the bridge at the northern approach spans.

Mark L. Sayger, PE, PLS

EDUCATION

- M.E./Texas A&M University/Ocean Engineering/ 1991
- B.S./University of Florida/Civil Engineering/1984

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

- Registered Professional Engineer/FL/NC
- Professional Land Surveyor/NC
- Safety Inspection In-Service Bridges, NHI 130055, 2010
- ADCI Commercial Diver Certification (#13049), 2006
- Nitrox Diver PADI (#TBD), Aug 2007
- U.S. Navy Diving Officer, 1992
- Underwater Bridge Inspection (NHI 130091)/2007

PROFESSIONAL AFFILIATIONS/ HONORS/AWARDS

- Society of American Military Engineers (SAME)

EXPERIENCE SUMMARY

Mr. Sayger has more than 25 years of progressive technical, leadership, and management experience in a wide range of planning, engineering, diving, and land surveying projects covering a diverse cross section of facilities and structures, including construction staking of residential and commercial properties, undersea cables, ships moorings, rail, utilities, pavements, and port dredging. Mr. Sayger's experience includes 20 years with the US Navy Civil Engineer Corps and eight years with private engineers and surveyors.

REPRESENTATIVE PROJECTS

Underwater Inspections, Burlington County Bridge Commission, New Jersey (2010, 2012) Team leader, engineer diver, and acting dive supervisor responsible for the underwater inspection of three Burlington County Bridge Commission Bridges for the 2012 NBIS Interim Inspections: Burlington-Bristol, Riverside-Delanco, and Tacony-Palmyra Bridges over the Delaware River. Work included NBIS inspection and evaluation of substructure members below the water, detailed CADD drawings, photographs, and hydrographic data upstream and downstream of the bridges, updating SI&A data, and QA/QC of reports.

QA/QC Underwater Inspections for Bridge Pier Reconstruction at Hatem Bridge, Maryland Transportation Authority (2012) Team leader and engineer diver responsible for QA/QC underwater inspections and structure evaluation of bridge pier reconstructionspecific to the client's needs, daily reports and drawings for the Thomas J. Hatem Memorial Bridge carrying US40 over the Susquehanna River. Work effort required coordination with MDTA Field Engineers and the US Coast Guard.

Underwater Condition Assessment of Bridge Piers Using Sonar Imaging, Maryland Transportation Authority (2011-2012) Engineer diver responsible for determining procedures on MDTA Sonar Imaging specific to the client's needs, capturing and processing sonar images using appropriate sonar equipment and software, underwater inspections, structure evaluation, and preparation of reports and recommendations for the William Preston Lane Memorial Bridge carrying US50 over the Chesapeake Bay and the Thomas J. Hatem Memorial Bridge carrying US40 over the Susquehanna River. Sonar imaging was performed on several piers for the Bay Bridge and also one pier at the Hatem Bridge. Work effort required coordination with MDTA Facility Administrators, MDTA Police, and the US Coast Guard.

Emergency Underwater Inspections, Statewide, Pennsylvania Department of Transportation(2012) Team leader and engineer diver responsible for emergency underwater inspections for PennDOT in Dauphin, Schuylkill, Adams, Lebanon and Juniata Counties (PennDOT Districts 3-0 and 8-0) after Hurricanes Irene and Lee. Work included underwater inspections on

more than 61 state owned bridges along the Swatara Creek. Also included in this contract were underwater inspections for Dauphin County, Adams County and the Milton Hershey School. The bridges typically had significant damage due to flooding and there were several bridges with significant debris accumulation. The teams assessed the in-water bridge units for flood-related scour, exposure and undermining, and made recommendations to close the bridge, repair the scoured areas with riprap, or remove the accumulated timber debris from the waterway. Duties included underwater inspection, probing inspections, and preparation of reports.

Underwater Inspection, Panhandle Bridge, Allegheny County Port Authority (2010) Engineer Diver responsible for the underwater inspection of the Panhandle Bridge over the Monongahela River in Pittsburgh. Working for GAI Consultants and the Port Authority of Alleghany County, our four (4) person dive team inspected the three stone masonry piers in the river. Dive team performed the work in one day, diving in depths up to about 20 feet. Divers performed 100% Level I and 10% Level II underwater inspections, in accordance with FHWA guidance. The stone masonry piers were evaluated with a chipping hammer and inspected for cracking, spalling, and overstress such as crushing. Soundness of joint material was also checked. The masonry piers were also inspected for loose bricks and/or stones, as well as bulging/misaligned surfaces.

Underwater Inspections of Three Non-Op Rail-Road Bridges, South Eastern Pennsylvania Transport Authority (2010) Inspector / Diver Tender / Report writer responsible for the structural inspection and evaluation of substructure members below the water for Bridge #7.69, Bridge #20.31, and Bridge #24.99. Inspected and evaluated waterways for aggregation, degradation, scour, bank erosion, foundation undermining, and lateral migration of the channel. Produced detailed inspection reports that included condition ratings, detailed CADD drawings, repair recommendations, photographs, and hydrographic data.

Underwater Inspections, Monmouth and Middlesex Counties, New Jersey Department of Transportation (2011) Engineer diver for underwater bridge inspections on seven county-owned bridges located throughout Monmouth and Middlesex Counties in accordance with NBIS and FHWA standards. Part of a four-person surface-supplied underwater inspection team (per ADCI Consensus Standards) on multi-span bridges carrying county roads over tributary waterways. Work included NBIS inspection and evaluation of substructure members below the water.

Topside and Underwater Inspections, Naval Facilities Engineering Service Center, East Coast Detachment (2010 – 2012) Bridge Inspector, Diver, & Tender responsible for the structural inspection and evaluation of superstructure and substructure members on 22 bridges at Camp Lejeune and Cherry Point, NC, above and below the water, in accordance with NBIS and FHWA standards. Inspected and evaluated waterways for aggregation, degradation, scour, bank erosion, foundation undermining, and lateral migration of the channel. Produced detailed inspection reports that included condition ratings, detailed CADD drawings, repair recommendations, photographs, and hydrographic data.

Post-Flood and Pre/Post-Construction Inspections, Naval Facilities Engineering Service Center, Nimitz Library and McNair Road Bridge, US Naval Academy, Annapolis, MD (2011) Team leader responsible for the structural inspection and evaluation of superstructure and substructure members, above and below the water, in accordance with NBIS and FHWA standards. Managed detailed inspection reports that included detailed CADD drawings, repair recommendations, and inspection photographs.

California Transportation (Caltrans) (2007-2008) Dive team member of Caltrans/Collins team performing inspection of the Richmond San Rafael Bridge and San Mateo Hayward Bridges, San Francisco Bay, California as well as 24 highway bridges throughout the San Joaquin Valley, San Mateo Hayward Bridge in San Francisco Bay, and a contaminated water bridges in Stockton. Inspection criteria followed ASCE "Standard Practice Manual for Underwater Investigations" specific to Level I and Level II inspections of submerged elements.

United States Coast Guard Waterfront Facilities UW Inspection (Apr 2008) Dive team member performing underwater inspection of USCG station's waterfront facilities in Pennsylvania, Delaware, and New Jersey. USCG stations inspections included Philadelphia, PA, and Cape May and Atlantic City, NJ.

SECTION F – NAMES, TITLES & HOURLY RATES

The following personnel will be made available to work on this project until completion.

- **Name:** William J. Castle, P.E., S.E. / President
- **Title:** Principal / Diver
- **Firm Name:** W.J. Castle, P.E. & Associates, P.C.
- **Principal Rate:** $174.00

- **Name:** Richard A. Parisi, P.E.
- **Title:** Engineer
- **Firm Name:** W.J. Castle, P.E. & Associates, P.C.
- **Rate:** $46.50

- **Name:** Andrew K. Hummers, P.E.
- **Title:** Engineer
- **Firm Name:** W.J. Castle, P.E. & Associates, P.C.
- **Rate:** $46.50

- **Name:** Steven Gardner, EIT
- **Title:** Engineer / Diver
- **Firm Name:** W.J. Castle, P.E. & Associates, P.C.
- **Rate:** $39.25

- **Name:** Katherine Kelly, EIT
- **Title:** Engineer / Diver
- **Firm Name:** W.J. Castle, P.E. & Associates, P.C.
- **Rate:** $46.50

- **Name:** Mark Kremper
- **Title:** Technician / Diver
- **Firm Name:** W.J. Castle, P.E. & Associates, P.C.
- **Rate:** $39.25

- **Name:** Mark Sayger, P.E.
- **Title:** Engineer / Diver
- **Firm Name:** Pennoni & Associates, Inc.
- **Rate:** $52.88

- **Name:** Joe Challburg
- **Title:** Engineer / Diver
- **Firm Name:** Pennoni & Associates, Inc.
- **Rate:** $33.00

- **Name:** Nick Ward
- **Title:** Engineer / Diver
- **Firm Name:** Pennoni & Associates, Inc.
- **Rate:** $33.00

- **Name:** Charles Ahrens
- **Title:** Engineer / Diver
- **Firm Name:** Pennoni & Associates, Inc.
- **Rate:** $33.00

- **Name:** Al Nawrocki
- **Title:** Technician
- **Firm Name:** Pennoni & Associates, Inc.
- **Rate:** $30.00

- **Name:** Kim P. Law, P.E. / President
- **Title:** Engineer
- **Firm Name:** LS Engineering Associates Corporation
- **Rate:** $65.00

- **Name:** King Lee, P.E.
- **Title:** Engineer
- **Firm Name:** LS Engineering Associates Corporation
- **Rate:** $66.95

Overtime

There may be times when you will need to work overtime so that we may meet the needs of our clients. Although you will be given advance notice when feasible, this is not always possible. Non-exempt employees must have all overtime approved in advance by their Supervisor.

Non-exempt employees will be paid at a rate of time and one-half their regular hourly rate for hours worked in excess of 40 hours in a workweek, unless state law provides a greater benefit in which case, we will comply with the state law.

Only actual hours worked count toward computing weekly overtime.

If you have any questions concerning overtime pay, check with your Supervisor or Human Resources Administrator.

SECTION H – Experience

W.J. Castle, P.E. & Associates, P.C. (Castle) was established in 1983 offering structural engineering and underwater inspection by engineers. CASTLE is unique in the industry being part of The Castle Group. The Castle Group is as innovative in our corporate structure as we are in our designs. Our company allows you to draw upon the expertise of a world class marine engineering firm combined with the practical know-how of an experienced marine contractor. The Castle Group consists of three companies that offer unparalleled innovation, execution, cost-effectiveness and timeliness. We can analyze problematic marine structures, design appropriate repairs, and perform the repairs ourselves without having to subcontract any of the work.

The Castle Group will provide you with innovative solutions that are practical, functional, and designed to work in the complexity of the real world. Our scanning sonar technology is a perfect example of the innovation we will provide. Information on our Sonar is presented below. We can handle every aspect of a project, from initial design and diagnosis to permits and construction; having a single point of contact saves time, energy, and money. Our clients include port authorities, utilities and private companies, state and city governments, various other agencies, and individuals. Our clients' satisfaction and our track record over the last 29 years have earned The Castle Group an excellent reputation in the industry.

CASTLE is very familiar with requirements of the Port Authority NY&NJ since we have been performing underwater inspections for the Port Authority bridges since 1993. These bridges include the following structures:

1. Goethals's Bridge
2. Outerbridge Crossing
3. Bayonne Bridge
4. Port Newark Structures
5. George Washington Bridge
6. Newark International Airport Structures

CASTLE has also performed underwater inspections for the following agencies located in the New York – New Jersey area:

1. MTA Bridges and Tunnels (TBTA)
2. City of New York
3. Regions 10 & 11 for New York State (Long Island and New York City)
4. NJ Transit Authority
5. N.J. Turnpike Authority
6. Long Island RR (MTA)

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

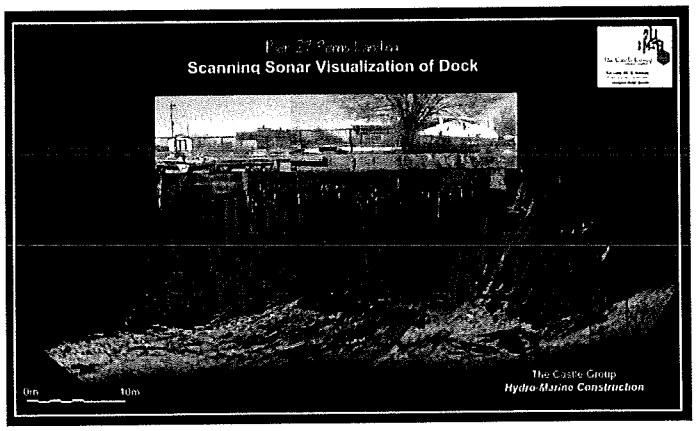
W.J. Castle PE & Associates

Quality of our work is our top goal. We achieve top quality in all of our work. This is proven and documented. It is also a recently documented fact, CASTLE is not living on our past - we are the current choice for quality inspection and marine engineering. A recent consultant evaluation provided by PennDOT for emergency underwater inspections performed this past fall 2011, and PennDOT's evaluation stated that CASTLE **Consistently Exceeds Expectations** in all categories.

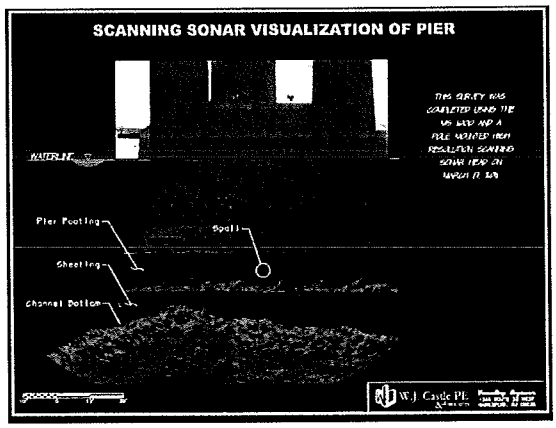
National Excellence and Recognition: Over the past three years CASTLE has been awarded three national awards in the field of waterfront and marine structures.

- ASCE Coasts, Oceans, Ports Rivers Institute (COPRI) 2009 Project Excellence Award for a project involving a ship collision with a major pier in Philadelphia. The project included emergency underwater inspection, emergency shoring of the pier, and final rehabilitation design.
- National Society of Professional Engineers (NSPE) 2011 New Product Award for an innovative patented design developed by CASTLE to rehabilitate H-Piles used in marine applications for piers and docks. The Hydro-Brace® is a less expensive rehabilitation that actually strengthens a deteriorated H-Pile to its original strength or more.
- National Council Structural Engineers Association (NCSEA) 2011 Excellence in Structural Engineering Award for a Pier Stabilization and Partial Demolition of a commercial shipping pier that had advanced deterioration. This project included unique, "never before used" methods of structural shoring to assure safe working conditions during demolition as well as innovative methods (including Hydro-Brace) to rehabilitate the commercial shipping pier.

State-Of-The-Art underwater sonar imaging for enhanced structural condition assessments: CASTLE offers state-of-the-art sonar scanning technologies for underwater investigations if required. CASTLE can provide both side scan sonar and stationary scanning sonar of marine structures and the surrounding river bed. CASTLE utilizes these units for underwater inspection purposes and quality control. These technologies will provide a visual record of the structure conditions as well as the river bed conditions. Scour and undermining can be documented in this way. Any scour or undermining can be a significant problem and must not be overlooked.



Partial Elevation of pier structure



Elevation of bridge pier

Our scanning sonar will provide a three dimensional picture of the mudline around each structure unit as well as the face of the structure underwater. The scanning sonar will confirm the presence, limits and condition of the existing scour protection/armoring around each unit. The scanning sonar will also indicate conditions of sheet piles and stone faces of piers. The scanning sonar will create pictographic documentation of the structure below the water surface. This can be a valuable tool in designing the required rehabilitation for a waterfront structure.

SAFETY: CASTLE, Pennoni and LS Engineering have excellent safety ratings. Safety is our number one priority and all of CASTLE, Pennoni and LS employees are provided safety training periodically to assure the latest information and to keep safety in the forefront of all employees thought process. CASTLE has selected Pennoni and LS for this project because their safety record is equal to CASTLE and therefore the whole Team can assure the Port Authority the best practice in Safety.

CASTLE's EMR for Previous Three Years			CASTLE's DART Rate for Previous Three Years	
Year	**EMR**		**Year**	**DART**
2011	**.86**		**2010**	**0.0**
2010	**.87**		**2009**	**0.0**
2009	**.86**		**2008**	**0.0**

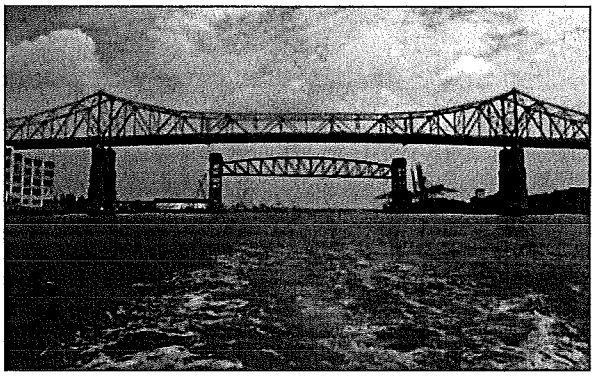
Technical Approach to Safety: Our safety assurance plans are built upon experience and knowledge of the applicable hazards and providing the right personnel and equipment for the task at hand. Operating vessels, facility operations, intakes and outfalls, underwater debris, overhead hazards, marine life and many other additional hazards exist at Port Authority facilities. Castle has documented procedures and experience locking and tagging ship and shore facilities for safe access and working closely with facility personnel to understand and safely conduct our inspections safely with minimal impacts to facility operations.

Assurance begins with our firm's Diving Operations Standard Practice Manual which outlines and directs Castle's daily, annual and continuous operational procedures. This manual has been generated in conformity and guidance from OSHA's commercial diving standards (29 CFR 1910.40), the U.S. Navy Diving Manual, U.S. Coast Guard regulations, U.S. Army Corps of Engineers EM 385-1-1 and the Association of Diving Contractors consensus standards. Our standards require site specific activity hazard analysis (AHA) and safety plans, daily and pre-dive safety meetings, equipment checklists and AHA checklists, as well as immediately completed dive logs and repetitive dive worksheets.

W.J. Castle PE
& Associates

RELAVANT PROJECTS

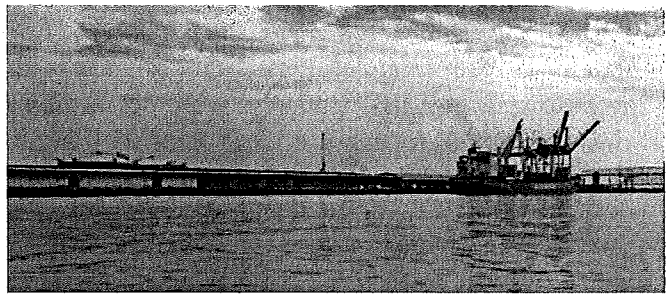
Project Name: Underwater Inspection of Goethals Bridge – Port Authority of NY & NJ



Project Description: W.J. Castle, P.E. & Associates, P.C. has performed the underwater inspection of the Goethals Bridge BIN 5523059 over Arthur Kill in 2006, 2008 and 2010. The inspections were Level II inspections of all substructure units in the water as well as the fender system and steel sheet pile protection cell/dolphins. The inspections conformed to both PANYNJ and NY State Criteria. Inspection were performed completely by our staff and using all company owned equipment. All reports followed the PANYNJ and State formats. NDT testing was performed on the steel sheetpile dolphins. Soundings were taken around all substructure units and profiles of the channel bottom were created as part of scour investigations around the piers.

Contact: Garen Apanosian, P.E.
Stantec Consulting Services, Inc., 50 W. 23rd Street, 8th Floor, New York, NY 10010; (212) 366-5600
Proposed Cost: $22,000.00
Actual Fee: $22,000.00
Time Frame: 2006, 2008, 2010 - The project was completed within the time frame allowed.

Project Name: Philadelphia Regional Port Authority Tioga Terminal In-Depth Underwater Inspection



Project Description: The Tioga Marine Terminal steel sheetpile cells and concrete cap were inspected. The inspection covered approximately 3,700 linear feet of terminal wall. Water depths varied up to 50 feet. The inspection was a Level 2 and 3 in order to verify areas of deterioration to be repaired and included both steel sheeting and concrete as required. All deterioration was located, measured, and characterized. Repair recommendations were provided for all defects found.

Contact: Phillip Girandola, Director – Ports and Marine North East
AECOM, 1700 Market Street, Suite 1600, Philadelphia, PA; (212) 465-5129
Proposed Cost: $47,000.00
Actual Cost: $47,000.00
Time Frame: June 2010 – Sep. 2010 – The project was completed within the time frame and budget allowed.

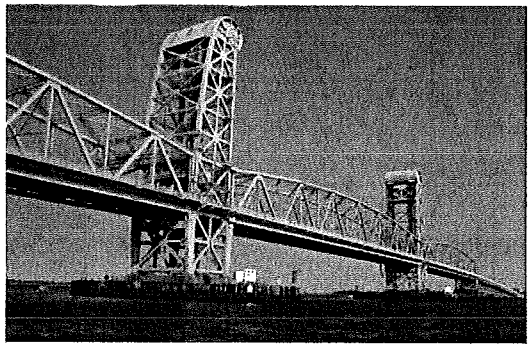
PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

W.J. Castle PE & Associates

Project Name: Underwater Inspection of RFK, Marine Parkway & Cross Bay Boulevard Bridge - TBTA

Project Description: In 2012 W.J. Castle has been retained to perform the in depth underwater inspection of the RFK Bridge, Cross Bay Boulevard Bridge and Marine Parkway Bridges. A hydrographic survey was performed for both Marine Parkway Bridge and RFK bridges. Also, a multibeam survey was performed at Marine Parkway Bridge.

Cross Bay Boulevard Bridge, B.I.N. 5521239 consists of 17 spans and four approach ramps on the south end of the bridge. These approach ramps are considered separate bridges and were documented in separate reports as per MTA requirements. The inspections were performed using our company owned dive boat using surface supplied air and tender to diver communications. The dives were both video and audio recorded digitally. Water depths varied from inspections in the Jamaica Bay marshes to open water inspections over 60 foot in depth.



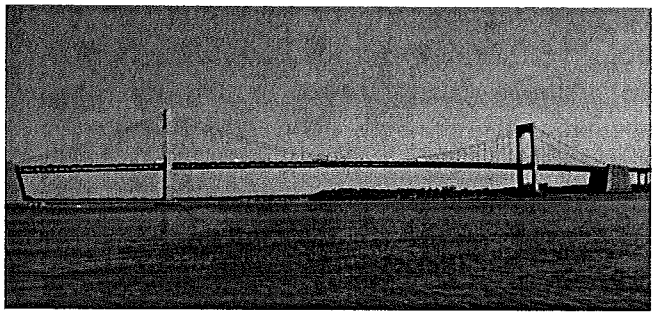
Marine Parkway Bridge, BIN 5521240 is a vertical lift bridge constructed in 1937 spanning approximately 1,620 L.F. The inspections included all piers and a detailed inspection of the fender system and the surrounding channel bottom. The piers are concrete and steel sheet pile tremie seals. The fender system is both timber and steel sheet pile protection cells. NDT and coring sample testing was done of the timber and steel fender system to determine the condition of the system for maintenance recommendations. The channel bottom was studied for scour. Both a fathometric and multibeam surveys were performed for the entire bridge and 150 feet upstream and downstream. Rockaway inlet is tidal with significant currents during both ebb and flow; therefore all work was schedule to coordinate with tidal flows.

RFK (Triborough) Bridge, BIN 5521209 over Harlem River is a multi-span steel truss bridge spanning between Randall's Island and Manhattan, New York. The inspection consists of two tower piers and two fender systems. In additional to the underwater inspection, a fathometric survey of the bridge in required to be performed accordance with NYSDOT standards.

Contact: Robert Drew, P.E.
Hardesty and Hanover, 1501 Broadway, New York, NY 10036; (646) 428-8562
Proposed Cost: $184,250.00
Actual Fee: $184,250.00
Time Frame: 2012
Project Completion: Current and ongoing.

Project Name: Underwater Inspection of Throgs Neck Bridge - TBTA

Project Description: In 2012 W.J. Castle performed the underwater inspection of the Throgs Neck Bridge over the East River. Built in 1961, Throgs Neck Bridge is a steel truss suspension bridge with plate girder approach spans spanning between Bronx and Queens, New York. A total of 43 piers were inspected including two tower and two anchor piers. All areas from the high tide line down were inspected including the channel bottom. The inspections were performed using our company owned dive boat using surface supplied air and tender to diver communications. The dives were both video and audio recorded digitally. Water depths varied under 10 feet to 80 feet in depth.



Contact: Michael Mangione, P.E.
WSP Sells, 555 Pleasant Road, South Building, Briarcliff Manor, NY 10510; (914) 747-1120
Proposed Cost: $44,500.00
Actual Fee: $44,500.00
Time Frame: September 2012
Project Completion: Current and ongoing.

Project Name: "Spirit of Philadelphia" Pier Modifications; South Columbus Boulevard, Philadelphia.

Project Description: Provided design/build services for the construction and installation of a new access platform, floating dock, dolphins mooring piles, and mooring cleats. W.J. Castle performed underwater and topside inspection of the existing pier structure. Existing plans were evaluated and mooring loadings were analyzed for a 260 foot and 90 foot commercial cruise ships. New steel king pile and timber mooring dolphins were designed. New cleats were analyzed and added to the existing pier structure. A steel barge floating dock, access platform and ramp were added to provide access to the 90 foot cruise ship. CASTLE provided construction management and inspection for the construction of the facility.

Contact: Gary Frommelt; Entertainment Cruises, 401 E. Illinois Street, Suite 310, Chicago, IL 60611; (312) 464-7600
Proposed Cost: $60,000.00
Actual Fee: $60,000.00
Time Frame: March 2012 – April 2012, The project was completed within the time frame allowed.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

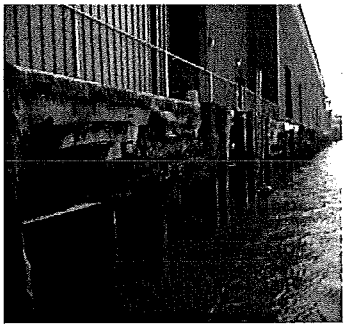
W.J. Castle PE & Associates

Project Name: Underwater Inspection of Throgs Neck Bridge - TBTA

Project Description: In 2012 W.J. Castle performed the underwater inspection of the Throgs Neck Bridge over the East River. Built in 1961, Throgs Neck Bridge is a steel truss suspension bridge with plate girder approach spans spanning between Bronx and Queens, New York. A total of 43 piers were inspected including two tower and two anchor piers. All areas from the high tide line down were inspected including the channel bottom. The inspections were performed using our company owned dive boat using surface supplied air and tender to diver communications. The dives were both video and audio recorded digitally. Water depths varied under 10 feet to 80 feet in depth.

Contact: Michael Mangione, P.E.
WSP Sells, 555 Pleasant Road, South Building, Briarcliff Manor, NY 10510; (914) 747-1120
Proposed Cost: $44,500.00
Actual Fee: $44,500.00
Time Frame: September 2012
Project Completion: Current and ongoing.

Project Name: Pier Inspection, Repair Design & Construction Inspection- 2010
Kimberly Clark Corporation; Chester, PA



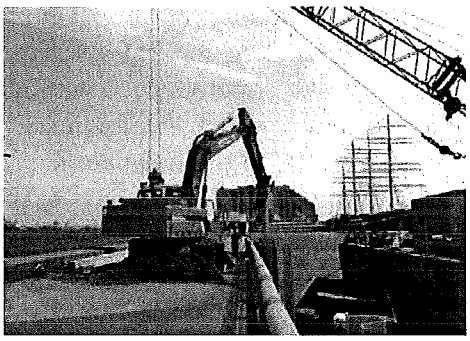
Project Description: Kimberly-Clark maintains a pulp dock on the Delaware River in chester, PA. The dock is a high deck structure consisting of steel pipe piles and H piles supporting steel bents caps and stringers supporting a 18" reinforced concrete deck. CASTLE started work on this pulp dock with an emergency inspection due to a partial collapse of a portion of the dock. The inspection revealed various issues. CASTLE developed rehabilitation plans that were constructed in budget and on time. CASTLE designed a demolition plan to remove the failed portion of the dock. The design implemented innovative temporary support barges that was an award winning method. CASTLE has developed a maintenance program of periodic underwater and superstructure inspections. The inspection findings are used to develop repair plans and a maintenance program to assure the continued use of the pulp dock. The maintenance program is designed in 5 year intervals. This program has been successful and tailored to the budget constraints and structural needs that K-C needs to assure their pulp dock operation continue un-interrupted.

Contact: Mr. Michael Dellaquilla, General Plant Group Leader; Front & Avenue of the States, Chester, PA 19013; (610) 499-6544
Proposed Cost: $85,000.00
Actual Fee: $85,000.00
Time Frame: 2010-2011 – The project was completed within the time frame allowed.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

W.J. Castle PE & Associates

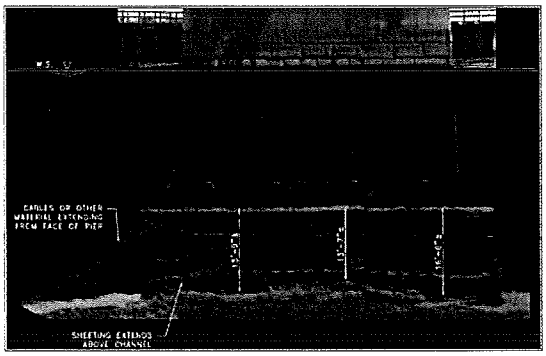
Project Name: Quay Pier Emergency Inspection and Repair; Delaware River Waterfront Corporation



Project Description: Quay Pier was struck by a tanker and sustained heavy damage. W.J. Castle, P.E. & Associates, P.C. performed the emergency inspection of the area and determined the extent of damage and developed repair plans. The damage included broken timber fender piles, broken concrete seawall, and several broken prestressed concrete support piles as wells as cracking and spalling of the concrete deck. Temporary repairs were designed to make the site safe to install a new permanent repair. All damaged areas of the pier were restored. The construction management of the project was also performed. **In 2009, this project received the ASCE national award for "Project Excellence Award" in the Small Project Category by *Coasts, Oceans, Ports, and Rivers Institute (COPRI).***

Contact: Mr. Joseph Forkin, Vice President of Operations, Delaware River Waterfront Corporation, 121 North Columbus Boulevard, Philadelphia, PA 19106; (215) 629-3221
Proposed Cost: $66,100.00
Actual Fee: $66,100.00
Time Frame: 2006 – 2007
Project Completion: The project was completed within budget and the time frame allowed.

Project Name: Underwater Scanning Sonar for Norfolk Southern Railroad Bridge No. 2.07 over Delaware River, Delair, NJ



Project Description: W.J. Castle, P.E. & Associates, P.C. performed the underwater scanning sonar of Structure No. 2.07, Railroad Bridge over Delaware River in Delair, NJ. The bride substructure was evaluated from low waterline down for any deterioration or areas for repair. The channel bottom was also inspected for any evidence of scouring. The inspection was performed using the Kongsberg MS1000 scanning sonar head working from a dive boat and using a three person crew. All of the evaluation was performed under the supervision of a licensed professional engineer in the states of NJ & PA. The final output included 3D images of the substructure and channel bottom. All areas of spalling, debris and scouring were noted.

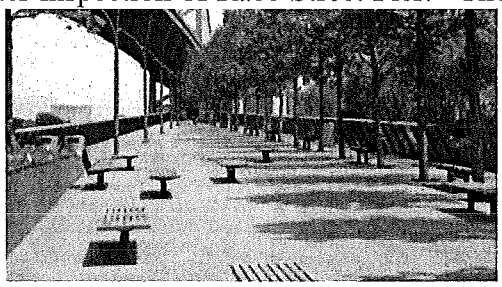
Contact: Mr. Dave Ohr, Norfolk Southern Corporation, 2801 E. Ann Street, Philadelphia, PA 19134; (215) 427-6466
Proposed Cost: $16,000.00
Actual Fee: $16,000.00
Time Frame: 2011 – The project was completed within budget and in the time frame allowed.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

W.J. Castle PE & Associates

Project Name: Race Street Pier Philadelphia, PA – 2010; Delaware River Waterfront Corporation (DRWC), Philadelphia, PA

Project Description: Performed the in-depth underwater inspection of Race Street Pier. The pier is a former shipping pier. The original timber pile foundation built in the 1800's remains and the steel truss bents and concrete deck was added in the 1930's. The inspection was a level 3 inspection to record all defects. CASTLE then developed rehabilitation plans for the structure to allow for a new premier public park to be constructed on the concrete deck. CASTLE analyzed the structure for future loading and design reinforcing for all components of the pier. Repairs included steel column and bracing repairs, timber pile repairs and concrete deck repairs. CASTLE then provided engineering services for the Landscape Architect on the project as well. This included designing curbing and railing supports for the edge of the pier and reinforcing of the concrete deck where 7 foot square cutouts were made in the deck to receive tree boxes. Also, performed on-call engineering services throughout the repair process and the park construction.



Contact: Mr. Joseph Forkin, Vice President of Operations, Delaware River Waterfront Corporation, 121 North Columbus Boulevard, Philadelphia, PA 19106; (215) 629-3221
Proposed Cost: $100,000.00
Actual Fee: $175,000.00
Time Frame: 2009 – 2010
Project Completion: The project was completed within budget and the time frame allowed.

Project Name: Underwater Inspection & Concrete Coring at Pier 9 Delaware River Waterfront Corporation

Project Description: The pier was built in 1916-1917 and is approximately 100 feet wide by 535 feet long. A concrete deck is supported by reinforced concrete beams, reinforced concrete cap beams and timber pilings. The original shed building is still intact and in-place on top of the pier. CASTLE has performed the underwater inspection of this pier several times as well as the shed building. In 2012 CASTLE provided assistance with the feasibility study performed for the pier as well performed an underwater inspection to determine the existing conditions and provide repair recommendations. An in-depth study was performed of the pier to determine its remaining useful life. Concrete cores were taken at representative locations. These cores were then analyzed for chloride content and other indicators for the overall condition of the concrete.

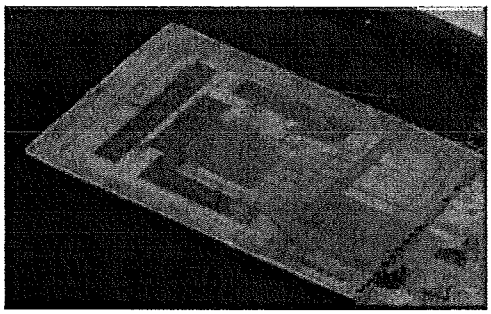
Contact: Mr. Joseph Forkin, Vice President of Operations, Delaware River Waterfront Corporation, 121 North Columbus Boulevard, Philadelphia, PA 19106; (215) 629-3221
Proposed Cost: $40,000.00
Actual Fee: $40,000.00
Time Frame: 2012 - The project was completed within budget and the time frame allowed.

Project Name: Willow Island Power Station Underwater Investigation

Project Description: CASTLE performed the underwater investigation at the First Energy Diffuser site at Willow Island in West Virginia to locate the existing power cables and utility pipe and the proposed location of the diffuser pipe extension in the Ohio River. The purpose of the investigation was to locate, inspect and document the underwater conditions the contractor would encounter when installing the proposed pipe. Our JW Fisher Cable tracker and pipe tracker were utilized in locating the path of the existing components. Buoys were placed and GPS coordinates documented to locate and delineate the path of the cables/pipes.

Contact: Marcus Ammons, Brayman Construction, 1000 John Roebling Way, Saxonburg, PA; (724) 443-1533
Proposed Cost: $27,000.00
Actual Fee: $27,000.00
Time Frame: November 2011 – The project was completed within budget and the time frame allowed.

Project Name: Freedom Pier In-Depth Inspection and Repair Design – 2010; Gloucester County, NJ



Project Description: W.J. Castle, P.E. & Associates, P.C. performed the Level III in-depth underwater inspection of the pier structure located along the Delaware River. The concrete pier is supported on piles and completely surrounded by steel sheeting with timber fender piles. Our inspection was limited to the underwater portions including steel sheeting and the channel bottom around the pier. The condition of the existing pier structure and the scouring of the channel were detailed in the inspection report submitted to Gloucester City including repair recommendations. Large voids in the steel sheeting with areas of random section loss were typical. CASTLE came up with a design for repairing the deterioration of the steel sheeting without installing new sheeting around the entire perimeter which measured approximately 1045 linear feet. This repair would reduce construction costs and help with the permitting.

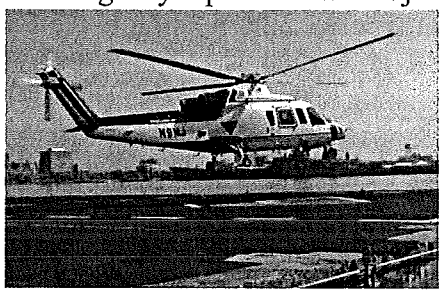
Contact: Mr. Jack Lipsett, City of Gloucester, Municipal Bldg, 512 Monmouth Street, Gloucester City, NJ 08030; (856) 456-0190
Proposed Cost: $46,500.00
Actual Fee: $46,500.00
Time Frame: 2010 - The project was completed within budget and the time frame allowed.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

W.J. Castle PE & Associates

Project Name: Heliport Pier#36 Repair Services

Project Description: In 2009 ***W.J. Castle, P.E. & Associates, P.E.*** and ***Hydro-Marine Construction Co., Inc.*** were retained to provide inspection and emergency repairs of two major voids on the Heliport pier as related to settlement in the tarmac/deck. The crew consisted of three personnel two of whom are certified commercial divers and an operating engineer with extensive pier construction experience under the supervision of a Licensed P.E./Diver. Based upon CASTLE's inspection from September 2009, the depressions found on the tarmac/deck occurred due to the loss of structural fill retained behind the seawalls and above the timber planking. Upon reviewing the previous 2006 report, we found a significant increase in areas of depressions or indications of the structural fill being lost from behind the seawall within the main section of the pier structure. The large spalls and voids in the concrete seawall were found to correspond to depressions found in the tarmac/deck. Approximately 15 linear feet of the seawall along the east side and approximately 10 linear feet along the south were found to have either a large spall allowing for structural fill to exit, or the vertical joint in the seawall was found to have severe spalling, voids and extensive deterioration. These deficiencies were rehabilitated using 4000 psi strength concrete mix pumped behind constructed falsework along each of the respective faces. Work was performed in January 2010 and completed within 8 working days.



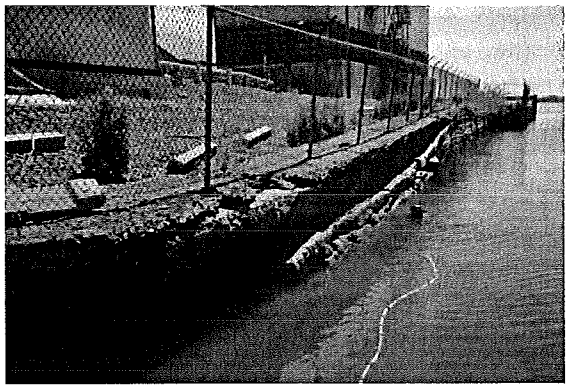
Contact: Mr. Joseph Forkin, Vice President of Operations, Delaware River Waterfront Corporation, 121 North Columbus Blvd., Philadelphia, PA 19106; (215) 629-3221
Proposed Cost: $58,675.00
Actual Fee: $58,675.00
Time Frame: December 2009-January 2010
Project Completion: The project was completed within budget and time frame allowed.

Project Name: Level II Underwater Inspection Georges Island, Boston Harbor, MA

Project Description: W.J. Castle, P.E. & Associates, P.E. was retained by Vanasse Hangen Brustlin, Inc. and National Park Services (NPS) to perform the Level II underwater inspection of Georges Island Facilities. The existing facility consists of three separate timber piers, each over 50 years old, located on the west side of Boston Harbor's George's Island. In December 2009 W.J. Castle, P.E. & Associates, P.E. performed a condition inspection of the pier structures of Georges Island. Our company owned 28ft dive boat and surface supplied air system was utilized, as well as low tide shore based inspection of sea wall. All areas of the facility were inspected including; the fender system, deck members, piles, cross bracing, wave fence and retaining wall.

Contact: Christopher W. Frye, Vanasse Hangen Brustlin, Inc., 351 McLaws Circle, Suite 3, Williamsburg, VA 23185-6316; (757)-220-0500
Proposed Cost: $61,000.00
Actual Fee: $61,000.00
Time Frame: April 2010 – The project was completed within budget and on time.

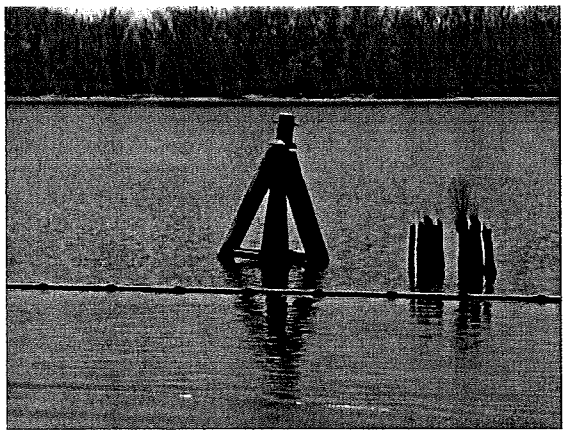
Project Name: Underwater Inspection Services for Pier 27; Delaware River Waterfront Corporation



Project Description: This pier is approximately 400'x600' and is a high deck structure. The pier is a concrete deck supported on timber pilings. Underwater pier inspection was performed to determine existing conditions and extent of deterioration. A portion of the pier has collapsed. CASTLE was required to analyze and determine the current capacity of the pier and the limits of safe usage of the pier. CASTLE determined a safe area for the pier's continued use as a public event space. All reports were signed and sealed by a Professional Engineer and were completed according to the City of Philadelphia's ordinance for pier inspections. (This Pier also received the scanning sonar study as presented in Section II of this proposal)

Contact: Mr. Joseph Forkin, Vice President of Operations, Delaware River Waterfront Corporation, 121 North Columbus Boulevard, Philadelphia, PA 19106; (215) 629-3221
Proposed Cost: $90,500.00
Actual Fee: $90,500.00
Time Frame: 2012 – The project was completed within budget and the time frame allowed.

Project Name: Underwater Inspection and Repairs Duck Island Terminal, Trenton, NJ



Project Description: W.J. Castle, P.E. & Associates, P.C. was retained by Duck Island Terminal, Inc. to perform the underwater inspection of the terminal located in Trenton, NJ. Included in the inspection are twelve steel h-piles and cross beams/caps supporting the walkway and dock. The inspection was performed to determine the overall structural condition of the components. The steel h-piles were found to be in poor condition with heavy section loss. Subsequently, our company was retained to design the repairs for these piles and Hydro-Marine Construction Co., Inc. our affiliate company, was retained to install the repairs.

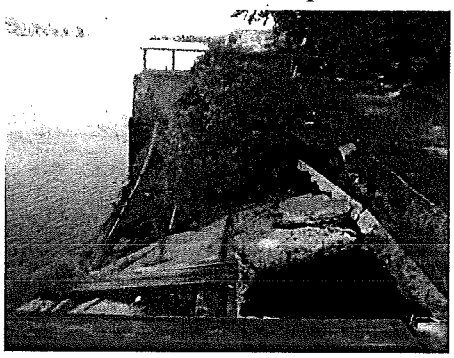
Contact: Howard Waldman, Duck Island, Terminal Inc., 1463 Lamberton Road, Trenton, NJ 08611; (609) 393-6899
Proposed Cost: $10,000.00
Actual Fee: $10,000.00
Time Frame: 2009 –The project was completed within budget and on time.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

W.J. Castle PE & Associates

Project Name: Design & Reconstruction of Trenton Marine Terminal

Project Description: Trenton's Marine Terminal was constructed in 1931 as part of an improvement plan to the Delaware River's main channel; and now serves as a public park to the residents and boaters of the surrounding area. The existing bulkhead was originally built as a place for barges and ferries to tie up. Its design consisted of timber piles and a wooden low deck structure that supported a concrete gravity wall and backfill. The concrete gravity wall has collapsed and destroyed part of the low deck structure and some of the supporting timber piles. It has been determined that once completed, this section of wall will no longer be used for mooring ships. Instead it will be converted into a section of park or fishing pier.



W.J. Castle, P.E. & Associates (WJC) was retained by the City in 2010 to design the reconstruction of this area. The design includes a high deck structure and concrete seawall to replace the failed portion of the seawall. The design includes precast panels across the structure to enclose the failed area and provide a support structure for the above park and walkway. The low deck structure and concrete seawall will be covered by the new structure and concrete panels. This proposed structure will be supported by laterally supported steel H-piles driven into the seafloor.

Contact: Mr. Randy Baum, City of Trenton, 319 East State Street, Trenton, NJ 08608; (609) 989-3255
Proposed Cost: $50,000.00
Actual Fee: $50,000.00
Time Frame: 2010 – The project was completed within budget and on time.

Project Name: Quay Pier Marina – Design & Construction Inspection

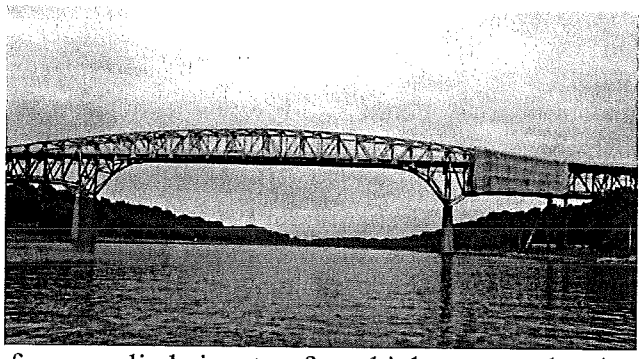
Project Description: In 2010 Castle developed plans and specifications for a new marina for the Quay Pier Marina located in Philadelphia, PA. All designs were done in accordance with DRWC and City of Philadelphia requirements and approvals. In 2011 Castle performed the construction inspection of these repairs which included; installation of new sheeting along the interior face of the pier, installation of new floating docks and finger piers, removal of existing timber piles and installation of new piles along the pier and the ends of the finger piers. Dredging of the site was performed at this time to remove some of the built up sediment at the marina.

Contact: Mr. Joe Forkin, Vice President of Operations, Delaware River Waterfront Corporation, 121 North Columbus Boulevard, Philadelphia, PA 19106; (215) 629-3221
Proposed Cost: $20,000.00
Actual Fee: $20,000.00
Time Frame: 2010 – 2011 – The project was completed within budget and on time.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

W.J. Castle PE & Associates

Project Name: Long Span Bridges C&D Canal, Philadelphia District United States Army Corps of Engineers (USACE) – Underwater Inspection

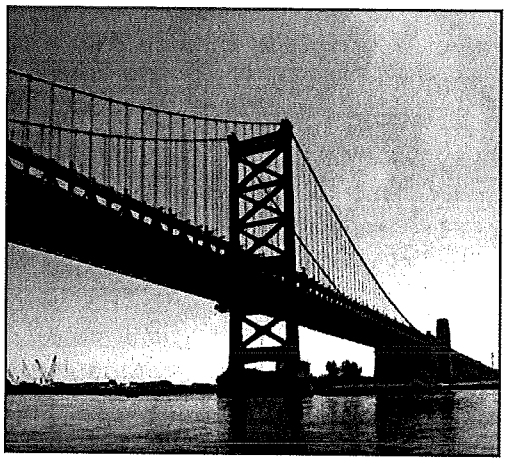


Project Description: The underwater inspections were conducted on September 2012 by W.J. Castle, P.E. & Associates, P.C. The inspection team consisted of a 4-person certified dive crew experienced in underwater inspection and included a registered Professional Engineer for direction and supervision. All personnel are certified commercial divers approved byt the ACOE. Diving operations consisted of surface supplied air setup from high pressure bottles for the primary and standby diver. All equipment is owned by CASTLE. Both divers were equipped with two-way communications, The bridge was accessed from one of the company dive boats.

Contact: Mr. Marc Wallowicz, U.S. Army Corps of Engineers, Philadelphia District Wanamaker Building - 100 Penn Square East Philadelphia, PA 19107-3390; (215) 656-6792

Proposed Cost: $32,632.00
Actual Fee: $32,632.00
Time Frame: 2012 -The project is on-going.

Project Name: Underwater Inspection & Report of the Ben Franklin Bridge



Project Description: In 2012 CASTLE performed the underwater inspection of the Ben Franklin Bridge over Delaware River. The inspection was of the two tower piers. Surface supplied air and communications were used. A level 2 inspection was performed. All areas from the high tide line down were inspected for deterioration. A report of the findings was provided.

Contact: Mike Mangione, P.E., WSP-Sells, 555 Pleasantville Road, South Building, Briarcliff Manor, NY 10510; (914) 747-1120

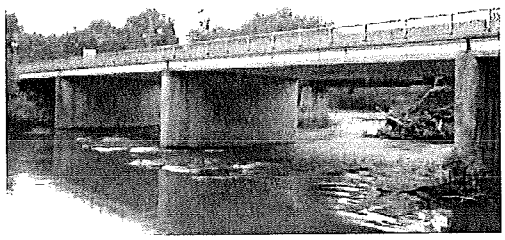
Proposed Cost: $14,029.80
Actual Cost: $14,029.80
Time Frame: July-August, 2012 – The project was completed within the time frame allowed and within budget.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

W.J. Castle PE & Associates

Project Name: E02474 Emergency Underwater Bridge Inspections; Pennsylvania – Multiple Bridges

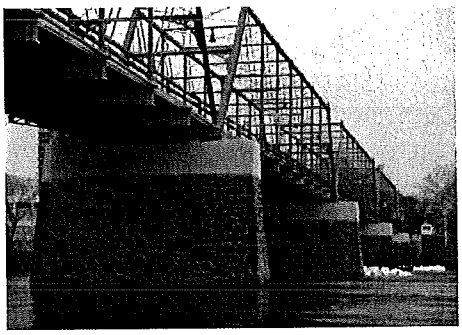
Project Description: Hurricanes and excessive flooding prompted the emergency underwater inspection of 44 PennDOT bridges to determine the substructure conditions including potential scouring or undermining. Bridge construction varied from concrete, granite, timber, etc. Excessive timber debris was found at most bridge piers. Each pier was inspected to determine if the channel bottom had changed in excess of 1 foot and the locations where change was noted a full underwater inspection was performed to determine if the bridge required emergency repairs. All inspections and submittals were done in accordance with PennDOT guidelines and National Bridge Inspection Standards (NBIS), AASHTO, and FHWA. CASTLE received the highest review marks possible from the PennDOT engineers after the project was completed.



Contact: James Long, PennDOT Central Office,
400 Forester Street, 5th Floor, Harrisburg, PA 17102; (717) 783-7616
Proposed Cost: $100,172.00
Actual Fee: $100,172.00
Time Frame: October 2011-November 2011 - The project was completed within budget and the time frame allowed.

Project Name: Underwater inspection Scour Critical D.R.J.T.B.C. Bridges

Project Description: In 2010 ***W.J. Castle, P.E. & Associates, P.C.*** performed the underwater inspection of ten DRJTBC scour critical bridges crossing the Delaware River. All areas from the high waterline down were inspected for deterioration or scouring activity. Due to the excessive floods the inspection of these bridges was a preventative measure to determine if any or all of these bridges required immediate repairs. Bridges 40, 60, 80, 180. 270, 275, 340, 360, 380 and 390 were inspected and all field notes, photographs and drawings of the findings were submitted to the client. Total cost of the project was $41,621. In 2005 and again in 2006 W.J. Castle had inspected twenty one of the DRJTBC bridges extending from Trenton up to New York.



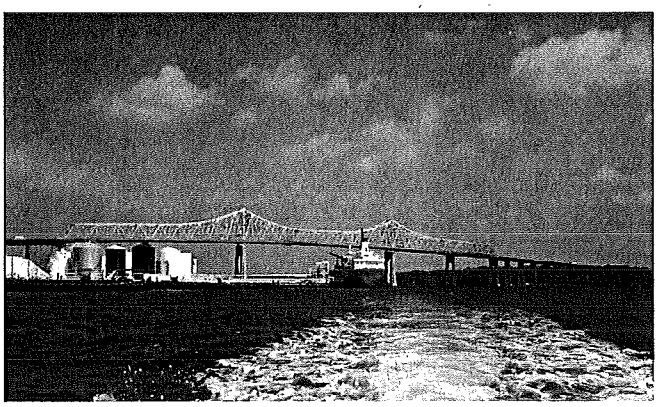
Contact: Ronald Mieszkowski, T&M Associates, 11 Tindall Road, Middletown, NJ 07748-2797; (732) 671-6400
Proposed Cost: $41,621.00
Actual Fee: $41,621.00
Time Frame: 2010 - Yes, the project was completed within budget and on time.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

W.J. Castle PE & Associates

Project Name: Biennial Underwater Inspection of Outerbridge Crossing Bridge – Port Authority NY & NJ

Project Description: W.J. Castle, P.E. & Associates, P.C. performed the underwater inspection and Fathometric survey of the Outerbridge Crossing Bridge. All exposed surfaces from the high water line to the channel bottom were inspected for scaling, cracks, spalls and scour. A pneumofathometer was also used by the diver(s) during inspections to accurately locate the channel bottom around each pier.



Contact: Mr. Nelson Hernandez, P.E. - URS Corp., 1 Penn Plaza Suite 610, New York, NY 10119; (888) 877-7752
Proposed Cost: $23,400.00
Actual Fee: $23,400.00
Time Frame: October 2002
Project Completion: The project was completed within budget and the time frame allowed.

Pennoni

PENNONI ASSOCIATES INC.

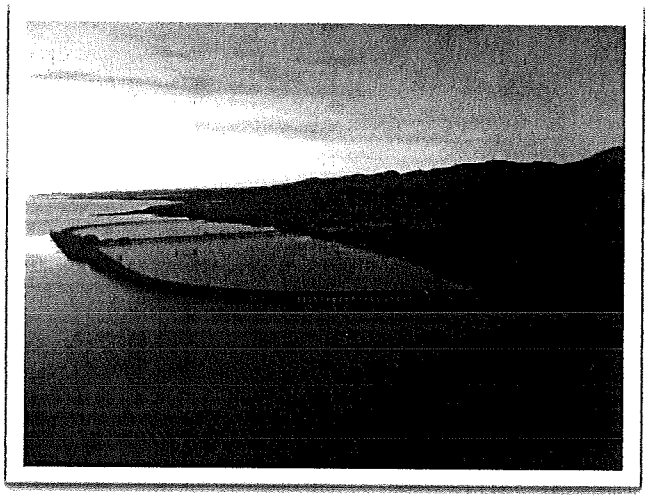
CONSULTING ENGINEERS

RELAVANT PROJECTS

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

Pennoni

PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS



Project Name: US Army Military Ocean Terminal Concord Underwater Inspection of Pier 4, Port Chicago, Concord, CA

Project Description: Pennoni Associates Inc. performed a visual and tactile inspection of the underwater features of Pier 4 at MOTCO, located at Port Chicago, in Concord, California. The pier was originally constructed in 1944 and consists of four sections; Main Approach (1644-feet), Main Platform (1215-feet), Walkway (1035-feet), and Concrete Approach (1397-feet). The Main Approach and Platform consist of 233 timber bents on 16-inch diameter timber piles. A concrete extension was added on the Main Platform in 1966 and various timber repairs were completed in 2006. The Walkway consists of 66 timber bents on 16-inch diameter timber piles. The Concrete Approach was built in 1966 and consists of 64 concrete bents on concrete piles. The underwater diving conditions consisted of 1-foot of visibility, current up to two knots, and tidal change of 4-feet.

Pennoni provided two diving staff members to support the OSHA approved six-person dive team, led by a registered Professional Engineer. The team conducted a structural inspection and evaluation in accordance with OSHA, FHWA, Code of Federal Regulations, and NBIS standards. The underwater portions of the inspection were performed using surface-supplied air. A detailed inspection report was submitted which included analysis of the waterfront facilities, as-built design plans, repair recommendations, and inspection photographs.

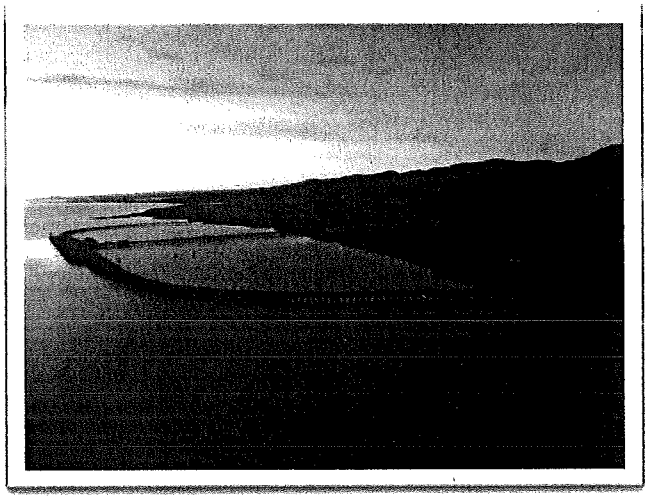
Contact: Gerardo I. Velazquez, PE
US Army Corps of Engineers, Vicksburg District, 4155 East Clay Street
Vicksburg, MS 39183; 601-634-3265

Proposed Cost: $62,000.00
Actual Fee: $62,000.00
Time Frame: March 20 through April 3, 2012.
Project Completion: Yes, the project was completed within the time frame allowed.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

Pennoni

PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS



Project Name: US Army Military Ocean Terminal Concord Level III Inspection of Pier 3, Port Chicago, Concord, CA

Project Description:
Pennoni Associates Inc. performed Level III condition inspections (including underwater Level III inspection) of approximately 150 timber piles along the Main Approach and Platform of Pier 3 at Military Ocean Terminal Concord (MOTCO) in California. Level III inspection included material sampling and laboratory testing/analysis. Preparation of Level III Inspection Report, including Level III findings and lab testing results. The work also included the removal of approximately 4 timber pile sections from MOTCO Pier 2 (which is currently closed) for lab testing. The team removed approximately 20 existing urethane pile-wraps at Pier 3, as well as 4 timber pile sections from Pier 2. The Level III inspection included above-water, splash-zone, and underwater portions of the piles. Core samples were taken from each of the 150 timber piles within the varying zones. The core samples included a minimum of 150 'pencil cores' (minimum of one per pile) taken with an incremental borer tool, and fifty 2" diameter x 6" deep cores (from selected piles at existing marine borer damage areas) taken with an underwater core-drill. The Pier 2 full-section samples were taken with an underwater hydro-saw. Half of the 150 pencil cores, all 50 of the 2" cores, and all of the Pier 2 samples were sent to a wood testing lab for testing and analysis. The underwater diving conditions consisted of 1-foot of visibility, current up to two knots, and tidal change of 4-feet.

Pennoni provided two diving staff members to support the OSHA approved six-person dive team, led by a registered Professional Engineer. The team conducted a structural inspection and evaluation in accordance with OSHA, FHWA, Code of Federal Regulations, and NBIS standards. The underwater portions of the inspection were performed using surface-supplied air. A detailed inspection report was submitted which included analysis of the waterfront facilities, as-built design plans, repair recommendations, and inspection photographs.

Contact: Gerardo I. Velazquez, PE
US Army Corps of Engineers, Vicksburg District, 4155 East Clay Street
Vicksburg, MS 39183; 601-634-3265

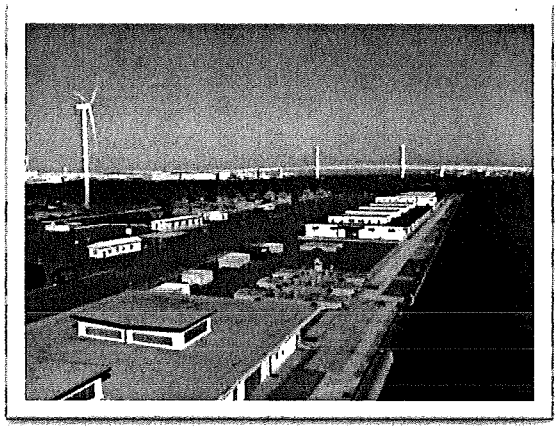
Proposed Cost: $55,000.00
Actual Fee: $55,000.00
Time Frame: September 2012.
Project Completion: Yes, the project was completed within the time frame allowed.

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

Pennoni

PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS

Project Name: US Army Military Ocean Terminal Concord Level III Inspection of Pier 3, Port Chicago, Concord, CA



Project Description: Pennoni Associates Inc. performed routine inspections of all waterfront facilities at Yokohama North Dock, in Yokohama, Japan, including underwater inspections. The waterfront facilities of Yokohama North Dock consisted of three piers with an approximate overall deck surface area of 290,175 square feet and 8,850 feet of seawall at various depths ranging from 5 to 35 feet.

Pennoni provided two divers to support the OSHA approved five-person dive team, led by a registered Professional Engineer. Teams conducted a structural inspection and evaluation in accordance with OSHA, FHWA, Code of Federal Regulations, and NBIS standards. The underwater portions of the inspection were performed using surface-supplied air. . A detailed inspection report was submitted which included analysis of the waterfront facilities, as-built design plans, repair recommendations, and inspection photographs.

Contact: Gerardo I. Velazquez, PE
US Army Corps of Engineers, Vicksburg District, 4155 East Clay *Street*
Vicksburg, MS 39183; 601-634-3265

Proposed Cost: $73,000.00
Actual Fee: $73,000.00
Time Frame: The inspection was performed from April 23 through May 11, 2012
Project Completion: Yes, the project was completed within the time frame allowed.

LSEA

RELAVANT PROJECTS

PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

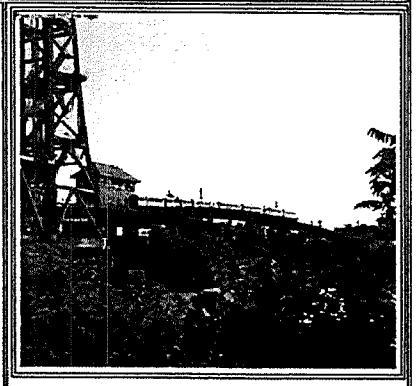
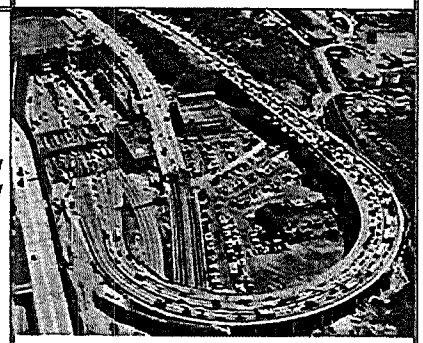
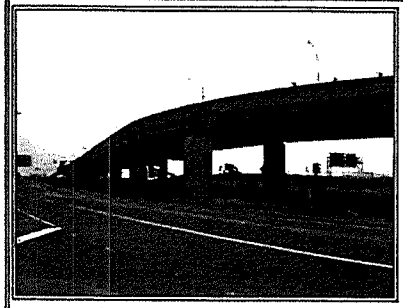
LSEA

LSEA Previous Inspection Projects with PA NY&NJ :

1. Newark Penn Station Path Bridge (2010)
2. Building 305 at Port Newark (2010)
3. BMW Parking Garage at Port Newark (2010)
4. New Jersey Marine Terminal Bridges (2010)
5. JFK Terminal Bridges (2010 & 2012)
6. JFK Roadway Bridges (2010 & 2012)
7. Path Open Air Structures (2010)
8. JFK Airport Safety Review (2 cycles)
9. LaGuardia Airport Safety Review
10. Newark International Airport Safety Review (2 cycles)
11. LaGuardia Airport Bridges (2006)
12. Bayonne Bridge (2007)
13. George Washington Bridge - NJ Approach (2007)
14. Path Bridge over Hackensack River (2007)
15. Goethals Bridge (2008 & 2012)
16. Newark Airport Bridge (2008 & 2012)
17. Newark Airport Sign Structures (2008)
18. Lincoln Tunnel - Jersey Approach (2009)
19. GWB On-Grade Sign and Lighting Structures (2009)
20. GWB Trans-Manhattan Expressway Structures (2009)
21. Henry Hudson Structures (2009)
22. Outerbridge Crossing (2010)
23. JFK Airport High Mast (2009)
24. Lincoln Tunnel Helix Structures (2011)
25. Teterboro Airport Condition Assessment of 7 Buildings (2011)
26. Brooklyn Pier Condition Assessment of 5 Buildings (2009)
27. Condition Survey of New Jersey Marine Terminal Rail Bridges (2011)
28. Façade Inspection of Essex County Resource Recovery Center (2012)

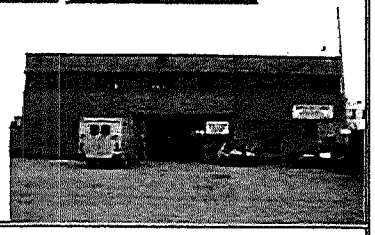
PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013

LSEA

LSEA - Condition Inspection of Bridges/Tunnel/Stations/Miscellaneous Facilities				
Project Name	**Project Description**	**Completion Date**	**Clients/Owner**	**Photograph**
PANY&NJ **Condtion Inspection of Newark Penn Station Path Bridges**	LSEA perfomed the condiiton inspection of the Newark Penn Station Path Bridges	September 2010	Port Auhtority of New York and New Jersey (HNTB - Prime)	
PANY&NJ **Condition Inspection of Lincoln Tunnel Helix Bridges**	LSEA perfomed the condiiton inspection of the Lincoln Tunnel Helix Bridges	October 2011	Port Auhtority of New York and New Jersey (H&H - Prime)	
PANY&NJ **Conditon Inspection of Five New Jersey Marine Terminal Bridges**	LSEA perfomed the condiiton inspection of the five NJ Marine Terminal Bridges	December 2011	Port Auhtority of New York and New Jersey (H&H - Prime)	

LSEA

LSEA - Condition Inspection of Bridges/Tunnel/Stations/Miscellaneous Facilities

Project Name	Project Description	Completion Date	Clients/Owner	Photograph
PANYNJ - Building Inspection for Five (5) Buildings at Brooklyn Pier, Brooklyn, NYC	LSEA provided Structural Building Condition Survery for 5 Warehouse Buildings located in Brooklyn Pier owned by Port Authority of NYNJ in 2009. The five(5) buildings include a large steel framed large building with metal sheet façade, three masonry fecade buildings, and a two storu masnory office building. The scope of work included thorough building inspection for all exterior elevations, interior floor structural framings and walls, roof condition inspection, repport and recommend immediate action for fpond unsafe conditions. Provide details inspection logs, photos and review of previous inspection report to compare with current field counditions. Provide analysis and calculation for deteriorated columns for the large steel framed building. Provide presentations for field findings and write detailed reports for the project by following the formart and requirement of The Port Authori	December 2009	Port Authority of NYNJ Chung Ching Lin,P.E., Project Manger, Tel : 973-792-3981	

MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES (RFP # 30225)

EXHIBIT I - DAILY DIVE COST ESTIMATE

	ITEM	TIME	HOURLY RATE	MULTIPLIER	*STRAIGHT TIME CHARGE	*FLAT CHARGE	*OFFICE CHARGE
HOURLY RATE	Ch. Engineer Diver	8 Hours	$ 54.00	2.90	$ 1252.80	$	$
	Engineer Diver	8 Hours	$ 46.50	2.90	$ 1078.80	$	$
	Inspector Diver	8 Hours	$ 39.25	2.90	$ 910.64	$	$

UNIT PRICES	Workboat (25-ft)	8 Hours	$ 850.00
	Workboat (16-ft)	8 Hours	$ 500.00
	U/W Video Camera System (color) per day		$ 200.00
	Hydraulic Wood Coring Equipment per day		$ 300.00
	U/W Cutting/Burning Equipment per day		$ 350.00
	HAZMAT Diver Encapsulation Gear per day		$ 500.00 *
	Water Jet Pump per day		$ 175.00
	UT Oscilloscope (KB USK7 DTM) per day		$ 300.00

Based on 4 days usage

* ***NOTES:***

STRAIGHT TIME CHARGE = No. of Hours x Hourly Rate x Multiplier

FLAT CHARGE = Diver Premium of $_____/hour - Employee Rate/Hour x Number of Hours

OFFICE CHARGE = Employee Rate/Hour x Number of Hours (Diver Premium Does not apply) Any office time gets added to the Straight Time Charge Total

SECTION J: LIST OF FIRM AFFILIATES

I. **Hydro-Marine**, founded in 1997, is the construction division of **The Castle Group** and is staffed with highly trained, certified commercial divers (ADCI). Dedicated to the highest quality underwater contracting, **Hydro-Marine** is a certified Woman Business Enterprise (WBE) with Empire State Development.

II. **Simplified Bridge Systems** was founded in 2001 and designs and build small-to-medium sized bridges, then delivers and installs them on-site. Since the inception of this division of "The Castle Group" two of our bridges have won awards from NJDOT for Quality and Initiative.

W.J. Castle PE
& Associates

September 18, 2012

The Port Authority of New York & New Jersey
2 Montgomery Street, 3rd Floor
Jersey City, NJ 07302

Attn: RFP Custodian

RE: The Port Authority of NY & NJ Request for Proposals for Marine Condition Surveys of Piers & Waterfront Facilities as Requested on a "Call In" Basis 2013 – (RFP# 30225)
WJC No. 1652.12

Dear RFP Custodian:

In response to submission requirement section K, W.J. Castle, P.E. & Associates, P.C. as Proposer has reviewed the above mentioned RFP and determined that there are no adverse conflicts of interest for anyone on the Agreement team.

William J. Castle, President
W.J. Castle, P.E. & Associates, P.C.

Sworn to and subscribed before me this

18 day of September 2012.

Debora A Zellers
Notary Public

Debora A. Zellers
Notary Public of New Jersey
My Commission Expires
Jan. 10, 2015

W.J. Castle PE
& Associates

September 18, 2012

The Port Authority of New York & New Jersey
2 Montgomery Street, 3rd Floor
Jersey City, NJ 07302

Attn: RFP Custodian

RE: The Port Authority of NY & NJ Request for Proposals for Marine Condition Surveys of Piers & Waterfront Facilities as Requested on a "Call In" Basis 2013 – (RFP# 30225)
WJC No. 1652.12

Dear RFP Custodian:

W.J. Castle, P.E. & Associates, P.C. agrees we shall comply with the requirements of the standard agreement and its terms and conditions if selected by The Port Authority.

Sincerely,

W.J. Castle, P.E. & Associates, P.C.

William J. Castle, P.E., S.E.
President

WJC:lb

WALKWAY OVER THE HUDSON

January 11, 2011

Mr. William Castle
The Castle Group
1345 Route 38 West
Hainesport, NJ 08036

Dear Bill,

I want to thank you for doing an excellent job on the underwater pier repairs supporting the former Poughkeepsie-Highland Railroad Bridge, now the Walkway Over the Hudson State Park.

From our earliest interactions on the scope of the work through completion of the as built drawings you and your team were very professional and most responsive.

The work was completed on schedule at the contracted cost with virtually no issues. This is a sign of excellent planning and execution.

Congratulations and thanks to you and all of your team members. It was a pleasure to work with you.

Sincerely yours,

Mike

Mike Duffy
Walkway Over the Hudson

PO BOX 889 • POUGHKEEPSIE, NY 12602 • 845·454·9649 • WALKWAY@WALKWAY·ORG • WWW·WALKWAY·ORG

Interstate Storage & Pipe Line Corporation

JACKSONVILLE, N.J.

Terminal
1715 Burlington - Jacksonville Road
Bordentown, NJ 08505
(609) 267-9100

Main Office
400 Amherst Street
Suite 202
Nashua NH 03063
(603) 886-7300

February 15, 2006

William J. Castle
W.J. Castle P.E. and Associates, PC
P.O. Box 586
Lumberton, NJ 08048

RE: Bridge/Road System at Burlington, NJ

Dear Bill,

This letter is provided to acknowledge your role in the design and successful completion of the Bridge/Road System accessing our Burlington, NJ pumphouse. I will provide more detail below, and invite you to use this letter as our written recommendation of your work.

The Bridge/Road system was contracted to you as an "as-built" project. W.J. Castle under the terms of the contract provided a preliminary budget, designed the system, obtained permits, and installed the system all within the original budget constraints. Complicating the project was litigation between three parties, which required the W.J. Castle design to meet the approval of all three litigants.

Through the course of the project W.J. Castle provided unique solutions, value engineering, and sound problem solving. The road system was built next to an active rail line, and the bridge foundations were installed between buried petroleum pipelines and communication cables, all without incident.

We are pleased with the work, and recommend both you and your designed bridge system to others.

Sincerely,

Charles A. Denault
President

Penn's Landing Corporation

September 8, 2008

To Whom It May Concern:

W.J. Castle, P.E. & Associates, P.C. (CASTLE) has been providing pier and bulkhead inspections and analysis, including underwater inspection for Penn's Landing Corporation since 2001.

In addition, CASTLE has provided design for repairs of many structural defects relating to concrete, steel and timber components such as pilings, decks, fender systems, seawalls, etc.

I would highly recommend their organization for the inspection, analysis and rehabilitative designs of the BBPDC marine structures.

Please feel free to contact me with any questions or for additional information.

Very truly yours,

JOSEPH A. FORKIN
Vice President

(215) 629-3200
Fax: (215) 923-2801
121 North Columbus Boulevard
Philadelphia, PA 19106-1403

COUNTY OF SALEM
ENGINEER'S OFFICE
94 Market Street
2nd Floor
Salem, New Jersey 08079

Joseph P. Federici, Jr.
County Engineer
(856) 935-7510 ext 8549
FAX (856) 935-7915

February 16, 2007

W. J. Castle, P.E. & Associates, P.C.
1345 Route #38 West
Hainesport, New Jersey 08036

ATTENTION: Bill Castle, President

RE: Emergency Underwater Repairs, Willow Grove Road, County Road #639
Pittsgrove Township
Salem County Contract #07-1112-B

Dear ~~Mr. Castle~~ Bill:

Regarding the emergency repairs to the sinkhole on Willow Grove Road, County Road #639, let me take this opportunity to personally ***Thank You*** for a job well done.

Your men in the field did an outstanding job, in harsh conditions, to make the necessary repairs in this emergency situation.

The efforts of you and your men are very much appreciated.

Very truly yours,

Joseph Federici Jr.

Joseph P. Federici, Jr. (df)
County Engineer

JF/df
cc: Public Works Committee

MANTOLOKING YACHT CLUB
P. O. BOX 885
MANTOLOKING, N. J. 08738

July 1, 2006

Mr. William J. Castle
W. J. Castle, PE and Associates, PC
693 Main Street, Building B, Suite 1
PO Box 586
Lumberton, NJ 08048

Dear Bill,

Just a note of thanks for the recent completion of our Clubhouse Foundation project. Your management of this project was seamless from start-to-finish. You were able to handle the tedious town permitting process without issue. Your workman completed the project on schedule and in a clean manner. And, you were on budget, too.

Our Board of Governors was quite pleased, given the age of the Clubhouse, and knowing that its foundation rests in an area that used to be part of our marina, decades ago. It was the first major project we have completed in recent years that proceeded as planned and promised. This is the direct result of your firm's project management capabilities.

And of course, I appreciate your availability for my questions, given my international travel schedule.

I look forward to an opportunity to work with you again.

Sincerely,

Sandy

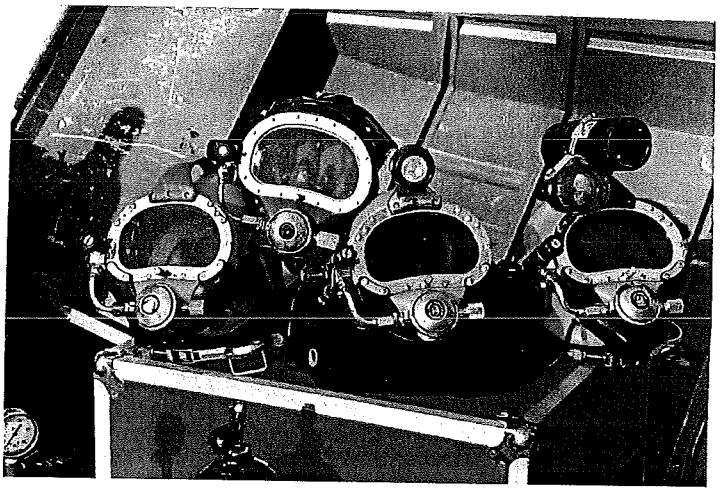
G. Sandy Diehl, III
Vice Commodore
Mantoloking Yacht Club

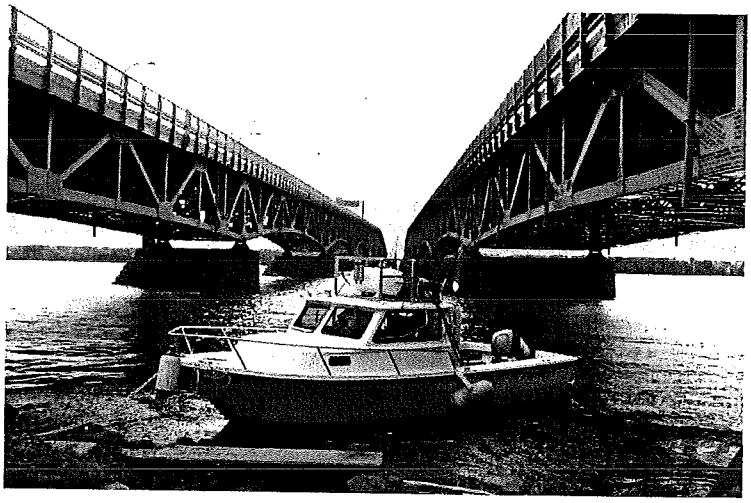
RFP No. 30225

Expert Professional Marine Condition Surveys of Piers and Waterfront Facilities as Requested on a "Call-In" Basis During 2013

Submitted to:

THE PORT AUTHORITY
OF NY & NJ





Submitted by:

A. DiCesare Associates, P.C.
690 Clinton Avenue
Bridgeport, Connecticut 06604

September 18, 2012

RFP No. 30225

Performance of Expert Professional Marine Condition Surveys of Piers and Waterfront Facilities as Requested On a "Call-In" Basis During 2013

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AVERY® READY INDEX®

SECTION A:
ATTACHMENT B

ATTACHMENT B

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

AGREEMENT ON TERMS OF DISCUSSION

The Port Authority's receipt or discussion of any information (including information contained in any proposal, vendor qualification, ideas, models, drawings, or other material communicated or exhibited by us or on our behalf) shall not impose any obligations whatsoever on the Port Authority or entitle us to any compensation therefor (except to the extent specifically provided in such written agreement, if any, as may be entered into between the Port Authority and us). Any such information given to the Port Authority before, with or after this Agreement on Terms of Discussion ("Agreement"), either orally or in writing, is not given in confidence. Such information may be used, or disclosed to others, for any purpose at any time without obligation or compensation and without liability of any kind whatsoever. Any statement which is inconsistent with this Agreement, whether made as part of or in connection with this Agreement, shall be void and of no effect. This Agreement is not intended, however, to grant to the Port Authority rights to any matter, which is the subject of valid existing or potential letters patent. The foregoing applies to any information, whether or not given at the invitation of the Authority.

Notwithstanding the above, and without assuming any legal obligation, the Port Authority will employ reasonable efforts, subject to the provisions of the Port Authority Freedom of Information Code and Procedure adopted by the Port Authority's Board of Commissioners on March 29, 2012, which may be found on the Port Authority website at: http://www.panynj.gov/corporate-information/pdf/foi-code.pdf, not to disclose to any competitor of the undersigned, information submitted which are trade secrets or is maintained for the regulation or supervision of commercial enterprise which, if disclosed, would cause injury to the competitive position of the enterprise, and which information is identified by the Proposer as proprietary, as more fully set forth in the FOI Code, which may be disclosed by the undersigned to the Port Authority as part of or in connection with the submission of a proposal.

A. DiCesare Associates, P.C.
(Company)

(Signature) Julie F. Georges, P.E.

Chief Executive Officer
(Title)

September 17, 2012
(Date)

ORIGINAL AND PHOTOCOPIES OF THIS PAGE ONLY. DO NOT RETYPE.

A. DiCesare Associates, P.C.
690 Clinton Avenue, Bridgeport, Connecticut 06604
*phone: 203-696-0444 * fax: 203-696-1094 * e-mail: dicesare@adicesarepc.com*

September 17, 2012

The Port Authority of New York & New Jersey
2 Montgomery Street, 3rd Floor
Jersey City, New Jersey 07302

Attn: RFP Custodian

Re: Request for Proposals for the
Performance of Expert Professional Marine Condition Surveys of
Piers and Waterfront Facilities as Requested on a "Call-In" Basis
During 2013 (RFP#30225)
ADA File No. 212052

A.DiCesare Associates, P.C. is pleased to submit one (1) original, three (3) copies and four (4) compact disc copies of its Letter of Interest & Statement of Qualifications for the provision of professional engineering services in connection with the above referenced project.

We hope and trust our submission is complete and look forward to being of service to the Authority.

Very truly yours,
The Office of
A.DiCesare Associates, P.C.

Arthur DiCesare

Arthur DiCesare, P.E.
Engineer-in-Charge

Enclosures

A. DiCesare Associates, P.C.
690 Clinton Avenue, Bridgeport, Connecticut 06604
*phone: 203-696-0444 * fax: 203-696-1094 * e-mail: dicesare@adicesarepc.com*

A. DiCesare Associates, P.C.
690 Clinton Avenue, Bridgeport, Connecticut 06604
*phone: 203-696-0444 * fax: 203-696-1094 * e-mail: dicesare@adicesarepc.com*

STANDARD AGREEMENT

A.DiCesare Associates, P.C. (ADA) foresee NO exceptions to the Authority's Standard Ageement.

SECTION L:
STANDARD AGREEMENT

A. DiCesare Associates, P.C.
690 Clinton Avenue, Bridgeport, Connecticut 06604
*phone: 203-696-0444 * fax: 203-696-1094 * e-mail: dicesare@adicesarepc.com*

CONFLICT OF INTEREST

A.DiCesare Associates, P.C. (ADA) foresee NO "Conflict of Interest" arising out of Award of this Agreement.

SECTION K:
CONFLICT OF INTEREST

A. DiCesare Associates, P.C.
690 Clinton Avenue, Bridgeport, Connecticut 06604
*phone: 203-696-0444 * fax: 203-696-1094 * e-mail: dicesare@adicesarepc.com*

AFFILIATES

A.DiCesare Associates, P.C. (ADA) has NO "Affiliates".

SECTION J:
AFFILIATES

MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES (RFP # 30225)

EXHIBIT I - DAILY DIVE COST ESTIMATE

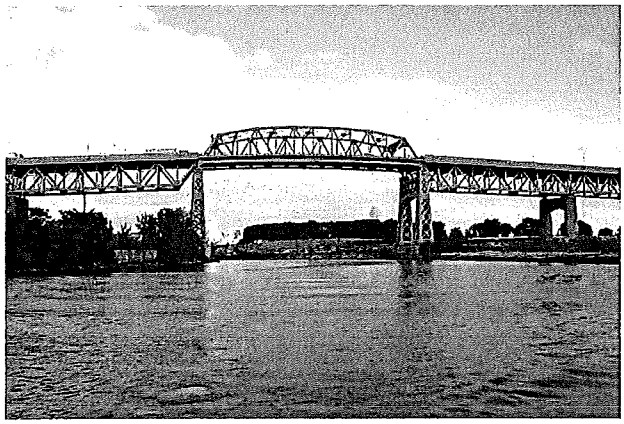
	ITEM	TIME	HOURLY RATE	MULTIPLIER	*STRAIGHT TIME CHARGE	*FLAT CHARGE	*OFFICE CHARGE
HOURLY RATE	Ch. Engineer Diver	8 Hours	$ 65.00	2.45	$ 159.25	$ 30.00	$ 159.25
	Engineer Diver	8 Hours	$ 60.00	2.45	$ 147.00	$ 30.00	$ 110.25
	Inspector Diver	8 Hours	$ 60.00	2.45	$ 147.00	$ 30.00	$ 110.25

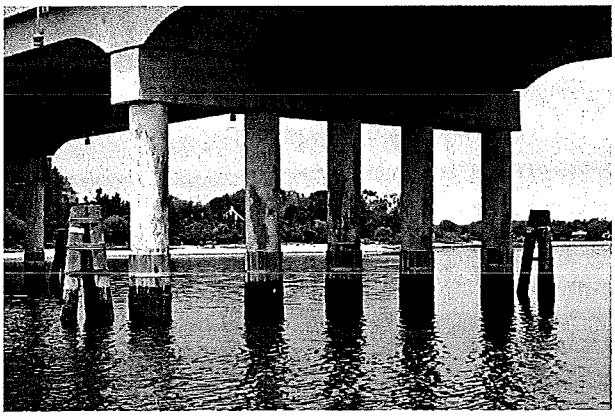
UNIT PRIC S	Workboat (25-ft)	8 Hours	$ 150.00
	Workboat (16-ft)	8 Hours	$ 0.00
	U/W Video Camera System (color) per day		$ 0.00
	Hydraulic Wood Coring Equipment per day		$ 50.00
	U/W Cutting/Burning Equipment per day		$ 50.00
	HAZMAT Diver Encapsulation Gear per day		$ 25.00
	Water Jet Pump per day		$ 25.00
	UT Oscilloscope (KB USK7 DTM) per day		$ 0.00

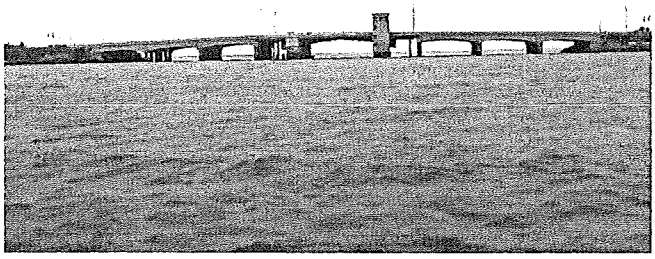
* ***NOTES:***

STRAIGHT TIME CHARGE = No. of Hours x Hourly Rate x Multiplier
FLAT CHARGE = Diver Premium of $ 30.00/hour - Employee Rate/Hour x Number of Hours
OFFICE CHARGE = Employee Rate/Hour x Number of Hours (Diver Premium Does not apply) Any office time gets added to the Straight Time Charge Total

SECTION I:
EXHIBIT I



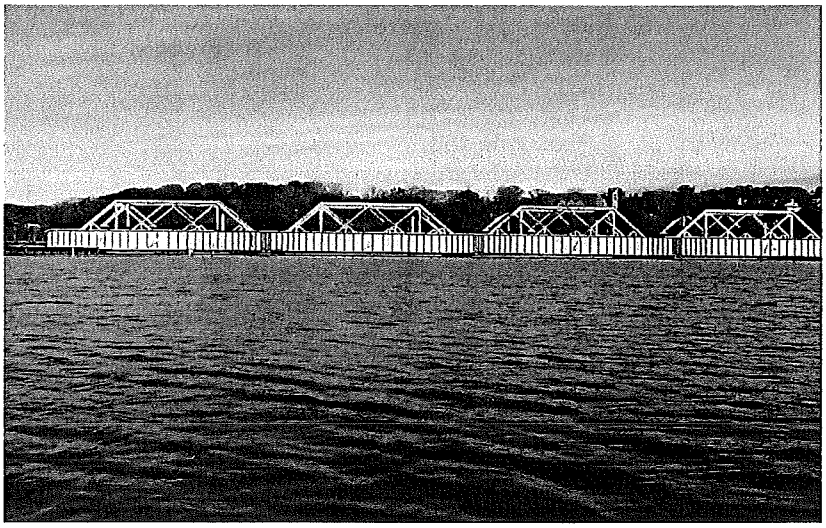


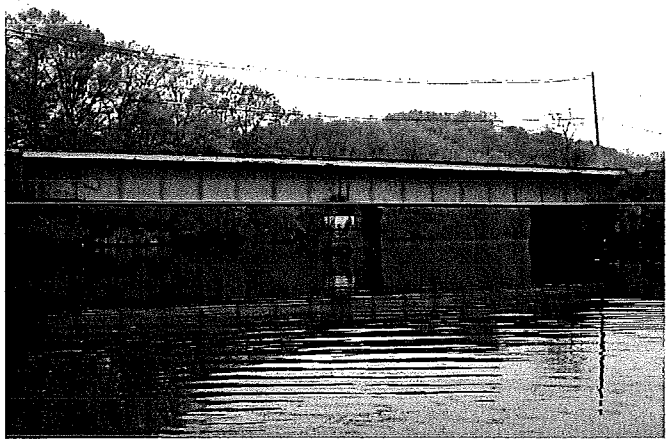


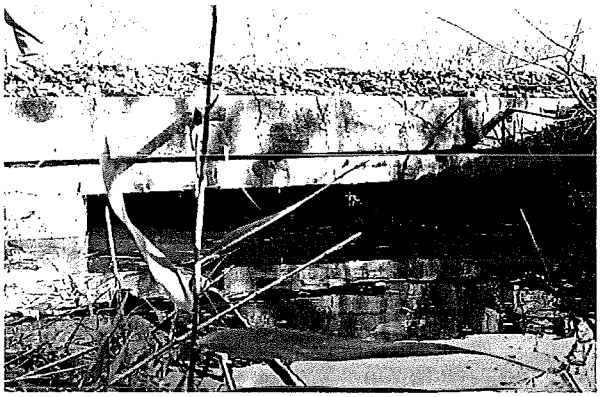
Project: ***2005-2008 Underwater Inspection and Fathometer Survey of Bridges within New York***
Location: ***New York City and Long Island, NY***
Owner: ***New York State Department of Transportation, Mr. Ikram Mohl (518) 457-8275***
Project Status: ***On Schedule & Within Budget***

A.DiCesare Associates is in charge of the biennial underwater inspection and fathometer survey of approximately 100 bridges throughout NYSDOT's Regions 10 & 11 (New York City and Long Island). Project includes the use of Engineer/Divers for the development of inspection findings via electronic documentation. Bridges vary from single spans to multiple spans crossing several causeways throughout Nassau and Suffolk County. Inspection includes a tactile investigation of all structures below water level, as well as protective devices such as fender systems and cofferdams. Fathometer survey conducted via GPS methods utilizing a submersible transponder to record river bottom profile.

Adherence to OHSA and US Coast Guard regulations required for all aspects of field activities.

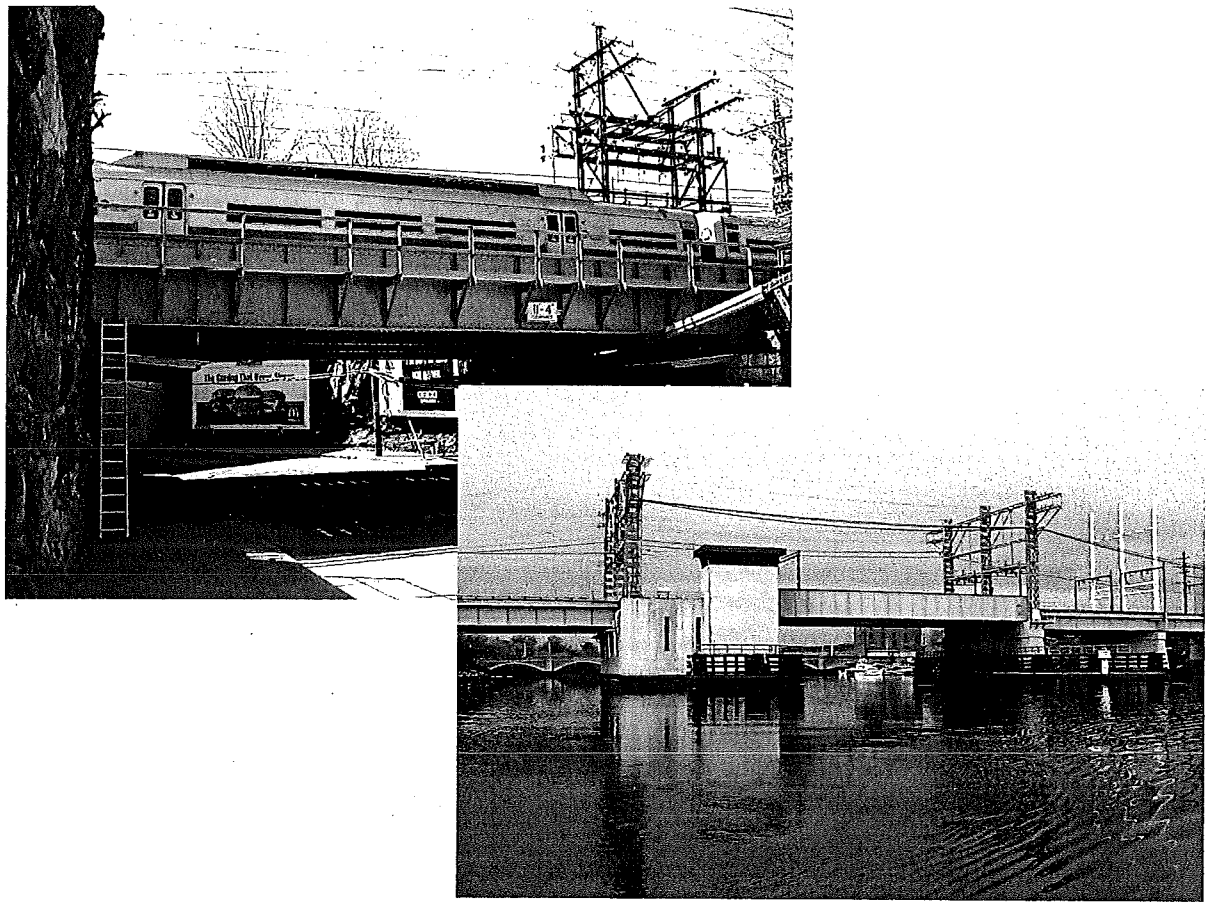






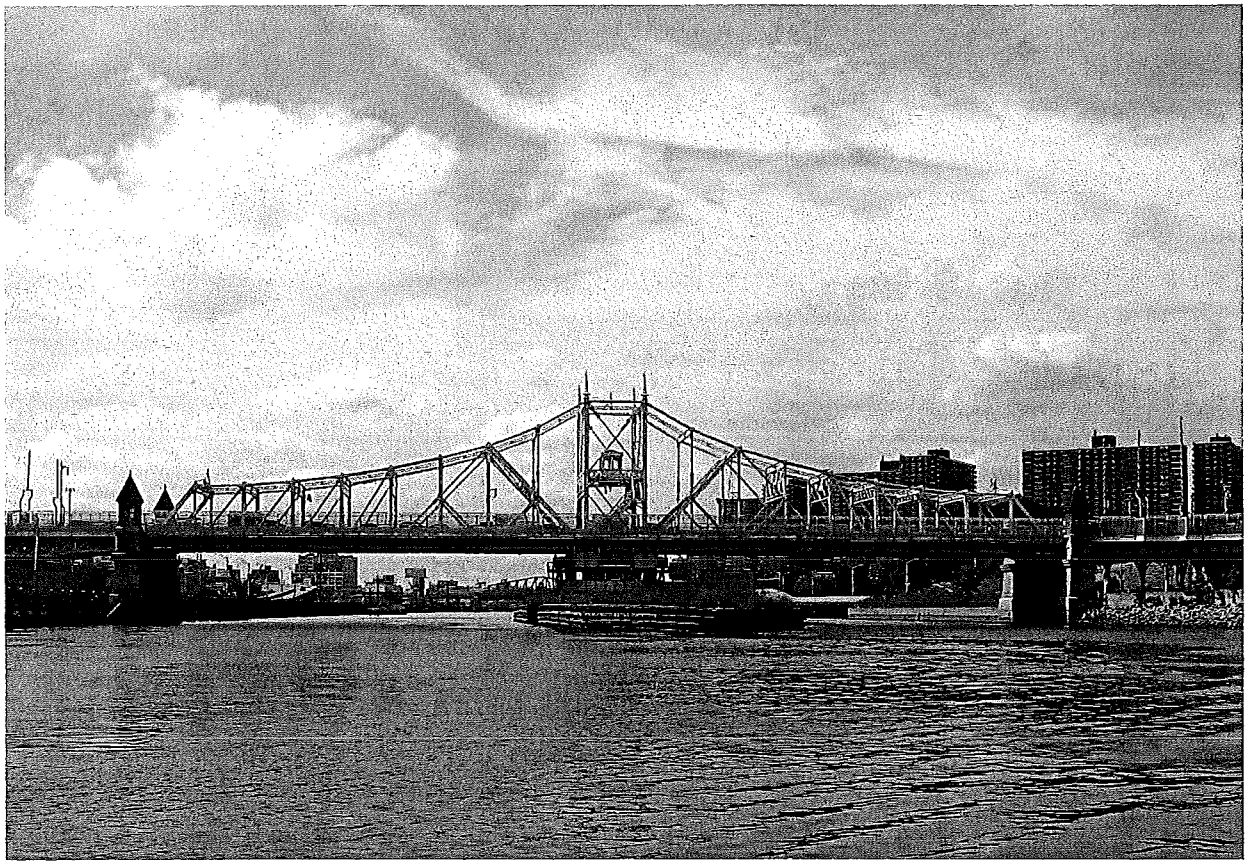
Project: ***Structural Integrity Inspection and Evaluation of MNRR Bridges throughout New York***
Location: ***Statewide***
Owner: ***Metro-North Railroad, Mr. Michael Feinberg (212) 499-4410***
Project Status: ***On Schedule & Within Budget***

A.DiCesare Associates performed the routine inspection, underwater inspection, and confined space entry inspection of twenty-five (25) Metro-North Railroad Bridges throughout the State of New York. Structure types range from reinforced concrete pipes, masonry arches, steel rail embedded in concrete, concrete box culverts, to steel thru girder/floor beam/stringer bridges supporting railroad traffic on the New Haven Mainline, Harlem Mainline and Hudson Mainline. Project objective is to establish the overall condition of the bridge population to prioritize for rehabilitation or reconstruction.



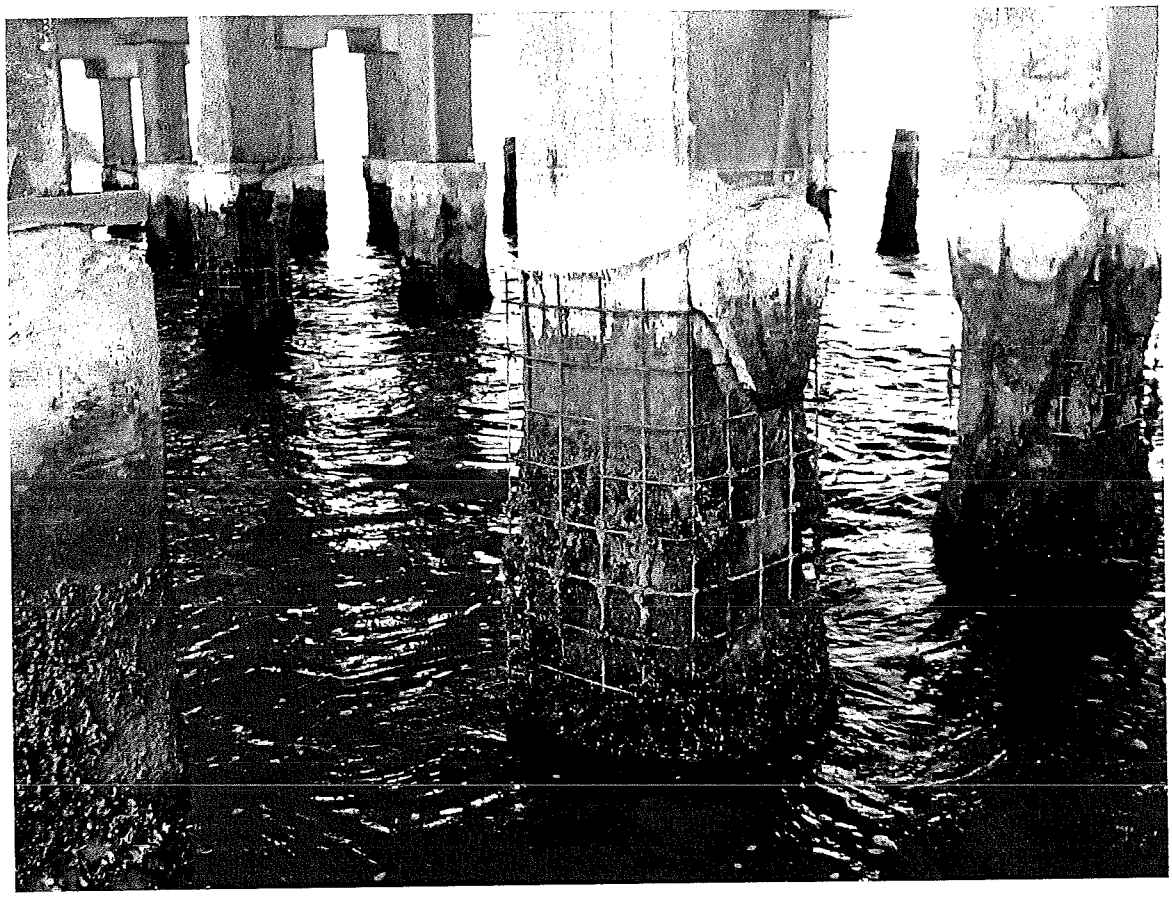
Project: ***Underwater & Above Water Inspection of MNRR Bridges throughout Connecticut***
Location: ***Greenwich to New Haven***
Owner: ***Metro-North Railroad/Connecticut DOT, Mr. Haresh Dholakia (860) 594-3173***
Project Status: ***On Schedule & Within Budget***

A.DiCesare Associates is involved in the in-depth inspection, routine inspection and underwater inspection of Metro-North Railroad Bridges throughout the State of Connecticut. Structure types range from concrete arches and culverts to steel thru girder/floor beam/stringer bridges to thru trusses, as well as a retaining walls supporting railroad traffic on the New Haven Mainline, New Canaan, Danbury, and Waterbury Branch Lines. Project object is to establish the overall condition of the bridge population with rehabilitation design and construction.



Project: ***Underwater Inspection and Report for the Macombs Dam Bridge over the Harlem River***
Location: ***New York, New York***
Owner: ***New York City Department of Transportation (PB) Steve Bennett (212) 465-5000***
Project Status: ***On Schedule & Within Budget***

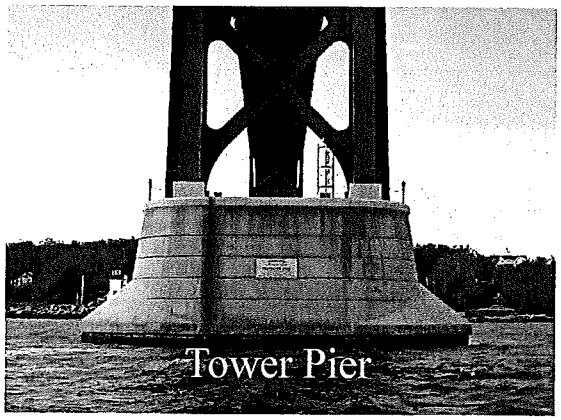
A.DiCesare Associates, P.C. performed the underwater inspection, evaluation, and report preparation of the Macombs Dam (155th Street) Bridge over the Harlem River. Substructure units included bridge piers, fender system, and timber cribs with special emphasis on settlement of the fender system. Report prepared in conformance with NYCDOT & NYSDOT format including CADD drawings documenting inspection findings, as well as documentation of marine borer infestation.
All work performed in accordance with OSHA regulations utilizing a three-man dive crew, led by a Professional Engineer, NBIS certified Engineer/Diver and Diver/Tender, utilizing surface supplied air, continuous audio and video monitoring, as well as the policies, procedures, and specifications of the New York State Department of Transportation, NYC Harbor Patrol, US Coast Guard and Homeland Security.

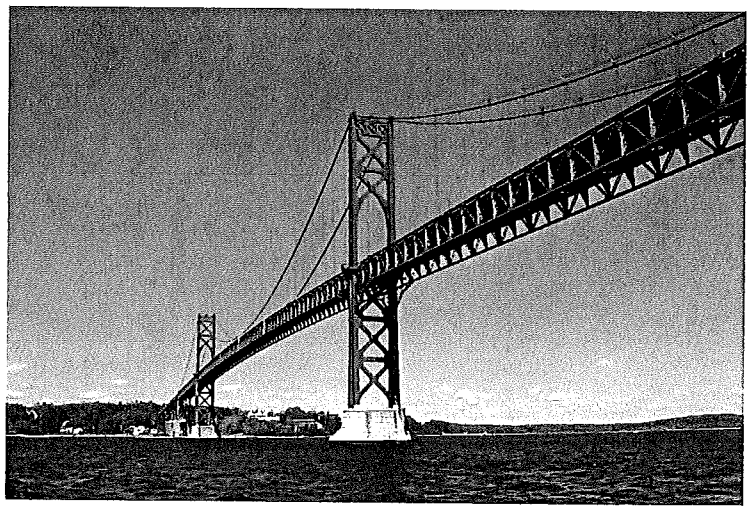


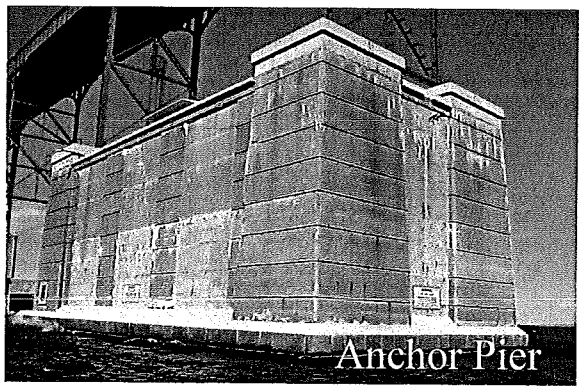
Project: ***Detailed Underwater Bridge Inspection for Rehabilitation Design Purposes***
Location: ***Long Island Sound, New York***
Owner: ***New York State Department of Transportation, Mr. Gene Gaye (631) 952-6645***
Project Status: ***On Schedule & Within Budget***

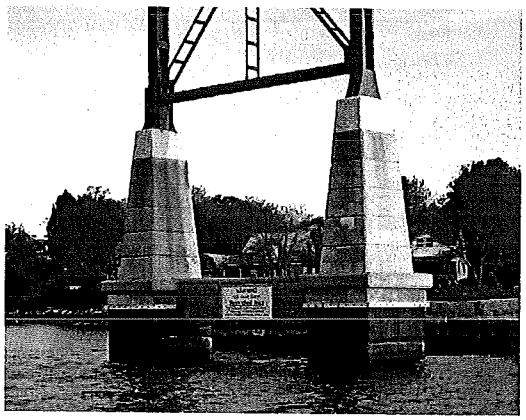
A.DiCesare Associates, P.C. performed both above and underwater inspection, evaluation, and deficiency documentation recorded in Microstation CADD format of several Long Island Sound causeway bridges for rehabilitation design purposes. To meet project objectives, extensive water blast cleaning of heavy marine growth required below water surface elevation.

All work was performed in accordance with OSHA regulations utilizing a three-man dive crew, led by a Professional Engineer, with surface supplied air, continuous audio and video monitoring, as well as the policies, procedures, and specifications of the New York State Department of Transportation, US Coast Guard and Homeland Security.





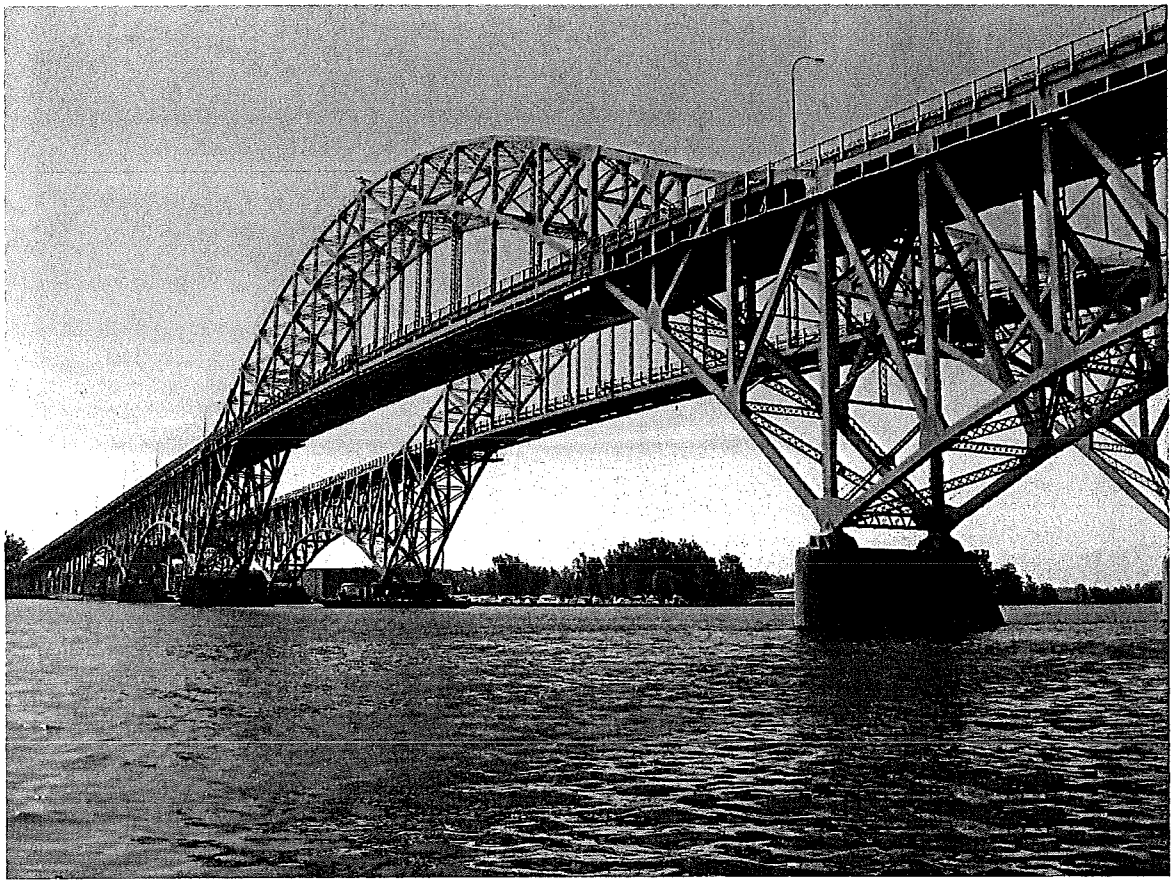




Project: ***Underwater Inspection and Evaluation of the Mount Hope Bridge carrying Rte. 114***
Location: ***Bristol/Portsmouth RI***
Owner: ***Rhode Island Turnpike and Bridge Authority, Mr. Peter Janos (401) 423-0800***
Project Status: ***On Schedule & Within Budget***

A.DiCesare Associates, P.C. performed the underwater inspection, evaluation, and report preparation of the Mount Hope Bridge. The Mount Hope Bridge is a suspension bridge built in 1929 that carries Route 114 and connects Bristol and Portsmouth, Rhode Island over the Mount Hope Bay. It is a two-lane bridge with a center span of 1,200 feet and a vertical clearance of 135 feet. With a total length of 6,130 feet, it has 9 piers that are in the water. Piers 14-15 are the south anchorage piers for the cables. Piers 18 and 19 are the tower piers whose base is 54 feet below bay bottom and support towers 285 feet tall. The underwater inspection included a hands-on evaluation of all piers. Inspection findings were recorded on CADD documents, which may be used in the preparation of rehabilitation plans.

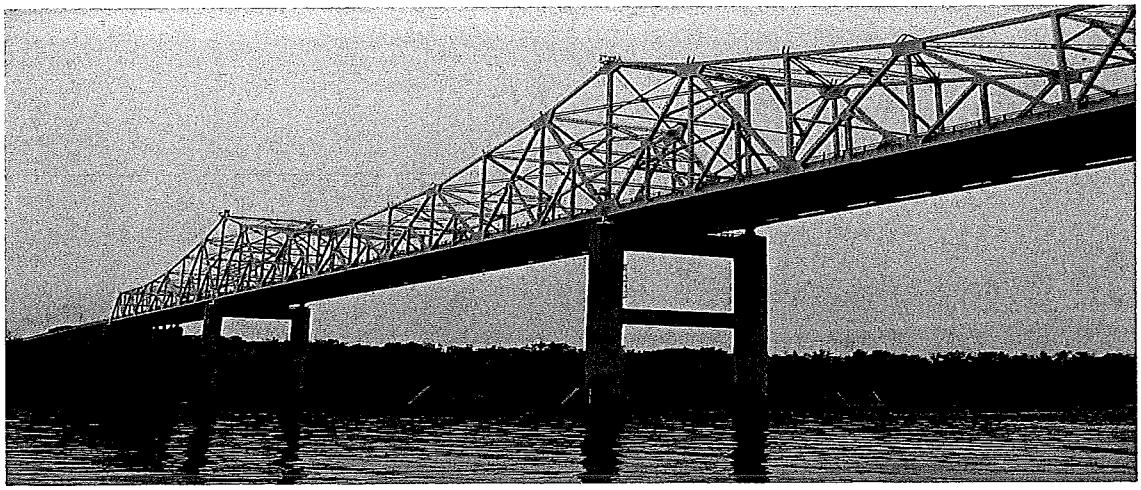
All work was performed in accordance with OSHA regulations utilizing a three-man dive crew, led by a Professional Engineer, with surface supplied air, continuous audio and video monitoring, as well as the policies, procedures, and specifications of the Rhode Island Turnpike and Bridge Authority, US Coast Guard and Homeland Security.

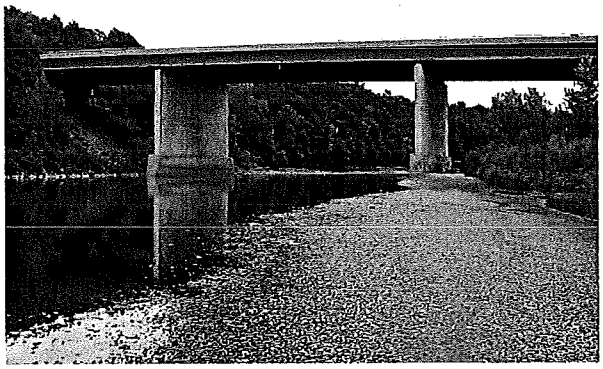


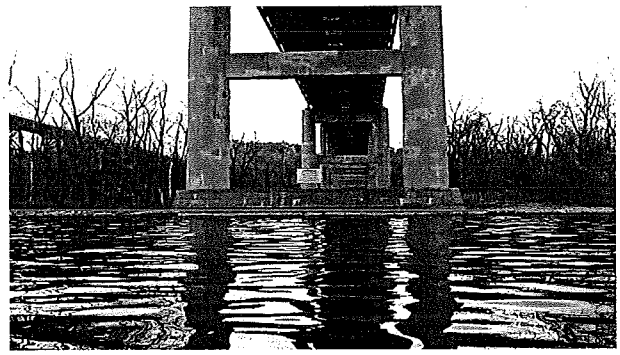
Project: ***Underwater Inspection of the South Grand Island Bridge over the Niagara River***
Location: ***Buffalo, NY***
Owner: ***New York State Thruway Authority, Mr. Shawn McAdoo (518) 436-2907***
Project Status: ***On Schedule & Within Budget***

A.DiCesare Associates, P.C. performed the underwater inspection, evaluation, database management, and report preparation of the South Grand Island Bridges (Northbound & Southbound) over a rapidly moving Niagara River (greater than 4 knots/second) as part of underwater bridge inspection throughout the Western portion of New York State.

Inspection findings recorded on CADD documents, which may be used in the preparation of rehabilitation plans. All work was performed in accordance with OSHA regulations utilizing a three-man dive crew, led by a Professional Engineer, with surface supplied air, continuous audio and video monitoring, as well as the policies, procedures, and specifications of the New York State Thruway Authority and Homeland Security.



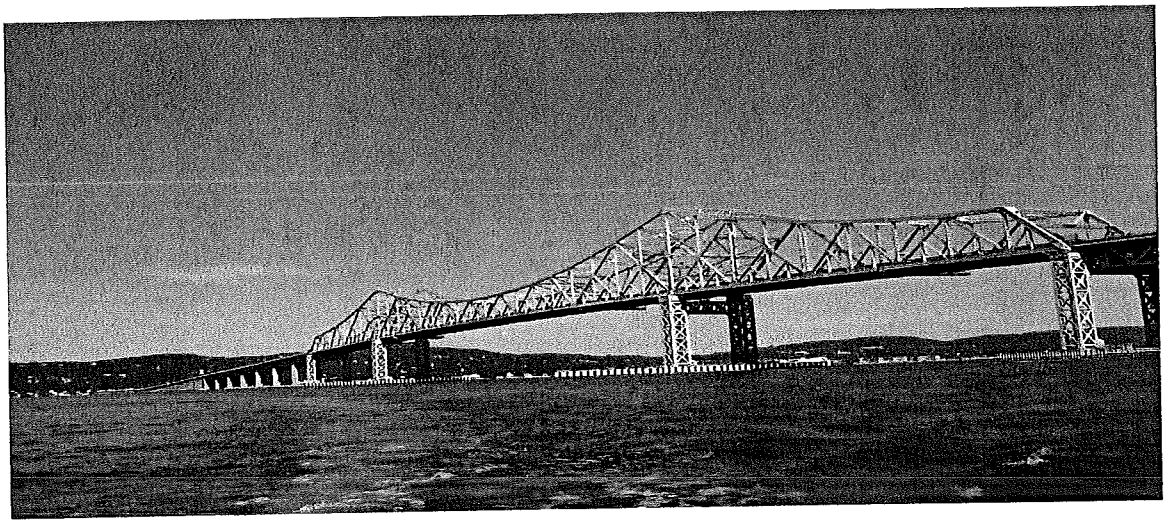


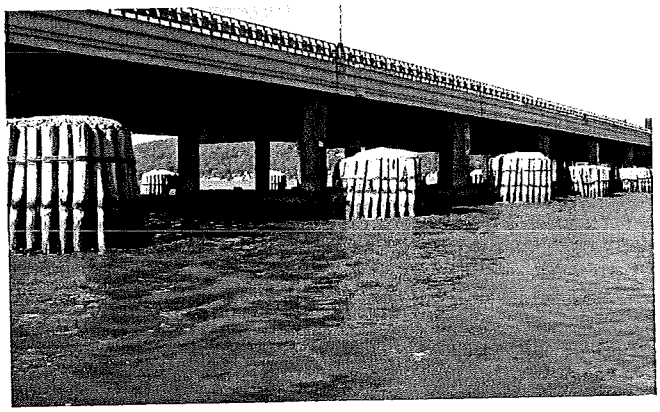


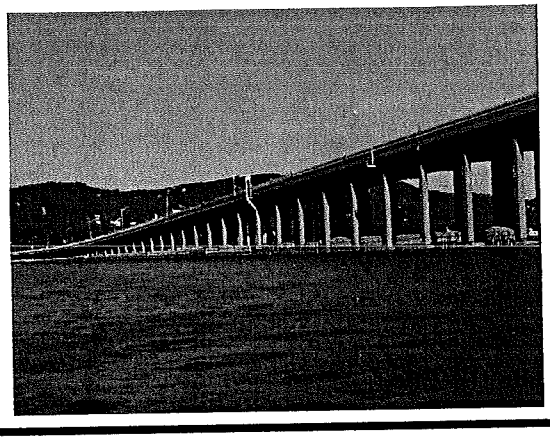
Project: ***2007 & 2010 Underwater Inspection and Fathometer Survey of the Castleton-on-the-Hudson and Schoharie Creek Bridges***
Location: ***Albany, NY***
Owner: ***New York State Thruway Authority, Mr. Shawn McAdoo (518) 436-2907***
Project Status: ***On Schedule & Within Budget***

A.DiCesare Associates, P.C. performed the underwater inspection, fathometer survey, evaluation, database management, and report preparation of the Castleton-on-the-Hudson, a forty-three (43) span structure comprising plate girders and through truss supported by "high" piers, and Schoharie Creek, a four (4) span plate girder structure supported by "solid" piers.

Inspection findings recorded on CADD documents, which may be used in the preparation of rehabilitation plans. All work was performed in accordance with OSHA regulations utilizing a three-man dive crew, led by a Professional Engineer, with surface supplied air, continuous audio and video monitoring, as well as the policies, procedures, and specifications of the New York State Thruway Authority, US Coast Guard and Homeland Security.



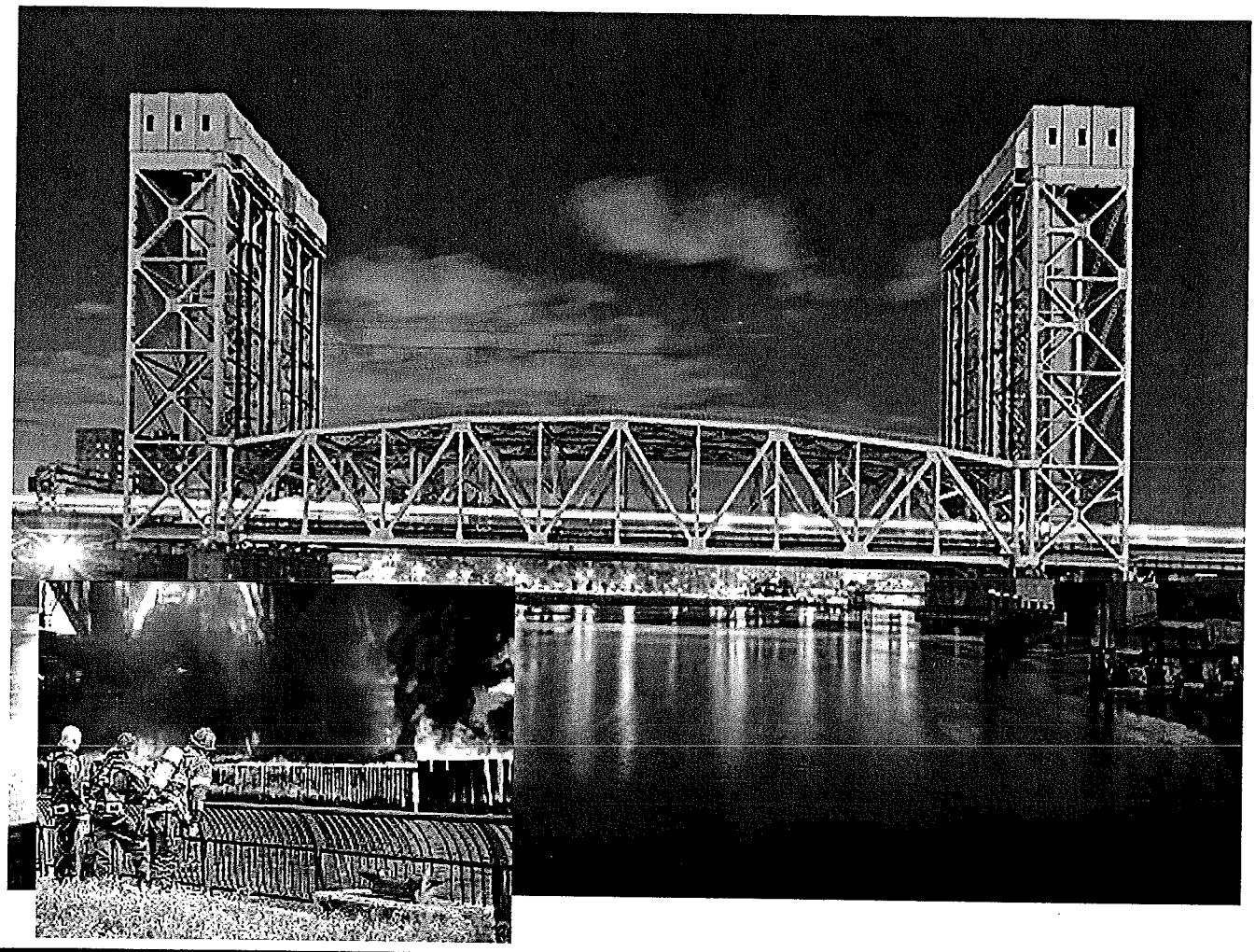




Project: ***2010 & 2006 Underwater Inspection and Evaluation of the Tappan Zee Bridge over the Hudson River***
Location: ***Westchester and Rockland County, NY***
Owner: ***New York State Thruway Authority, Mr. Shawn McAdoo (518) 436-2907***
Project Status: ***On Schedule & Within Budget***

A.DiCesare Associates, P.C. performed the underwater inspection, evaluation, database management, and report preparation of the Tappan Zee Bridge. The structure consists of 166 causeway spans, 7 deck-truss spans, and a through-truss main span, which comprises a cantilever/suspended span with flanking anchor spans. The underwater inspection included a hands-on evaluation of more than 14,000 timber piles, 14 concrete filled steel sheet pile cells, and 7 semi-buoyant, hollow-box caissons. Inspection findings recorded on CADD documents, which may be used in the preparation of rehabilitation plans.

All work was performed in accordance with OSHA regulations utilizing a three-man dive crew, led by a Professional Engineer, with surface supplied air, continuous audio and video monitoring, as well as the policies, procedures, and specifications of the New York State Thruway Authority, US Coast Guard and Homeland Security.

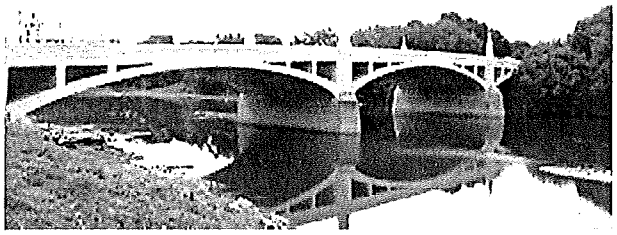
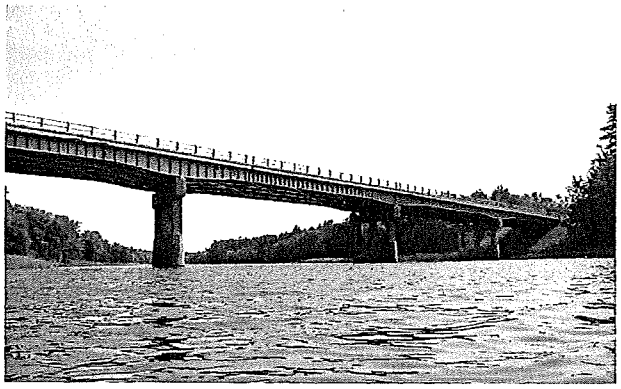
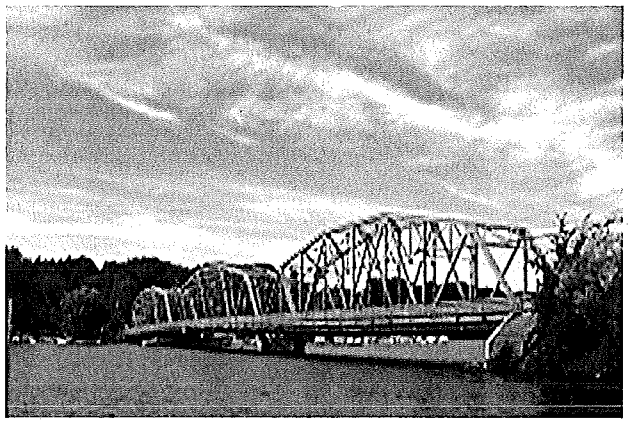


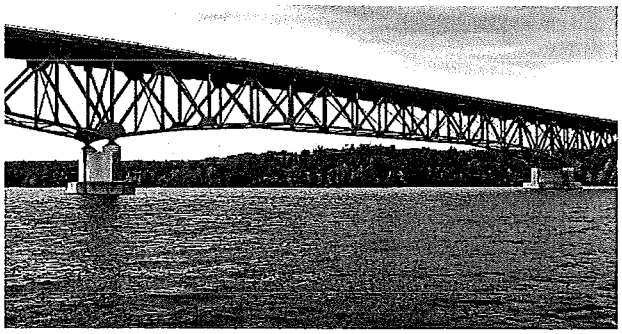
Project: ***Emergency Underwater & Above Water Inspection of Harlem River Lift Bridge***
Location: ***New York, NY***
Owner: ***MTA Metro-North Railroad, Mr. Colm Saunders (914) 461-0474***
Project Status: ***On Schedule & Within Budget***

Responsive to a major fire to the timber fender system protecting the river pier of the Harlem River Lift Bridge in New York City, Metro-North Railroad retained the professional services of A.DiCesare Associates to fast-track the reconstruction effort.

The project included a complete assessment of the fender system and pier through the performance of underwater and above water inspection services and documentation. The inspection included destructive means via extraction of timber cores, saw cutting of timber piles, and laboratory analysis.

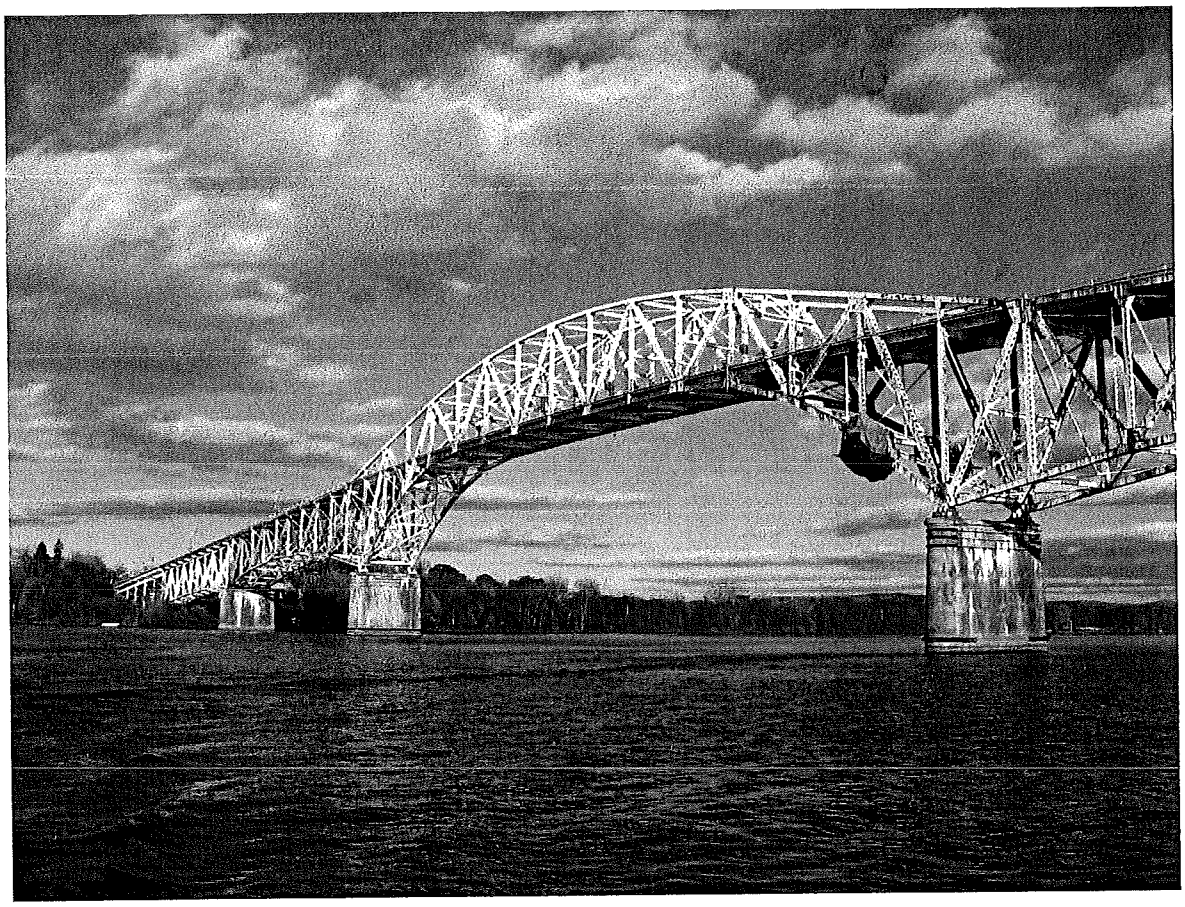
Design services consisted of the development of reconstruction options, development of construction cost estimates, and time tables for the implementation of reconstruction efforts. Professional services maintained throughout the period of construction.



Project: ***2009-2011 Underwater Inspection and Fathometer Survey of Bridges within New York***
Location: ***Upstate East (R1, 2, 7, 8, & 9)***
Owner: ***New York State Depart. of Transportation, Mr. Todd Hermann (518) 457-9802***
Project Status: ***On Schedule & Within Budget***

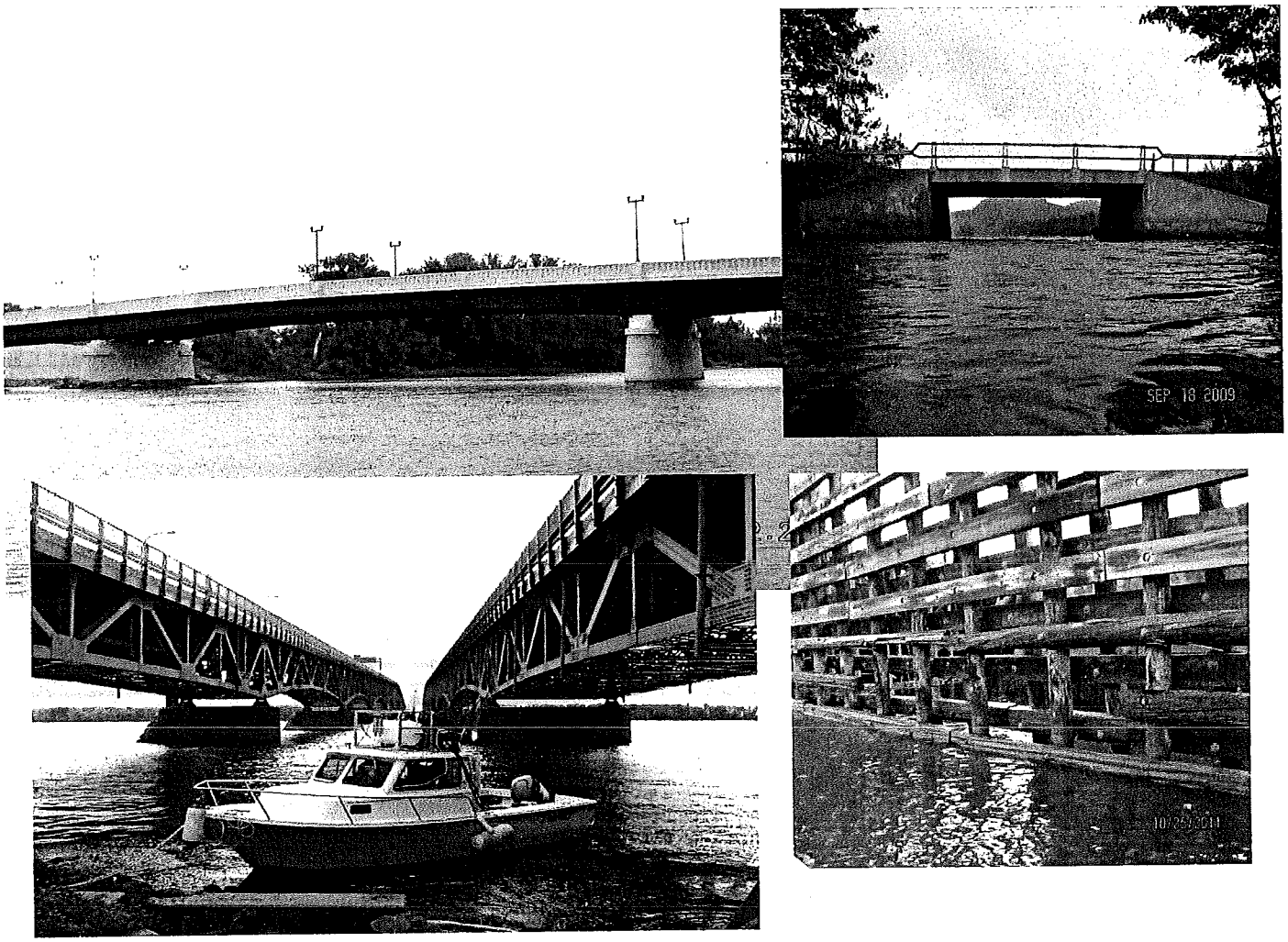
A.DiCesare Associates is in charge of the biennial underwater inspection and fathometer survey of approximately 200 bridges throughout NYSDOT's Regions 1, 2, 7, 8, & 9 (New York Upstate East). Project includes the use of Engineer/Divers for the development of inspection findings via electronic documentation. Bridges vary from single spans to multiple spans crossing major waterways from New York City (southerly border) to Canada (northerly border) to Vermont (easterly border) to Syracuse (westerly border). Inspection includes a tactile investigation of all structures below water level, as well as protective devices such as fender systems and cofferdams. Fathometer survey conducted via GPS methods utilizing a submersible transponder to record river bottom profile.



Project: ***Route 185 over Lake Champlain***
Location: ***New York / Vermont Border***
Owner: ***New York State Department of Transportation, Mr. Doug Daniels (518) 457-5639***
Project Status: ***On Schedule & Within Budget***

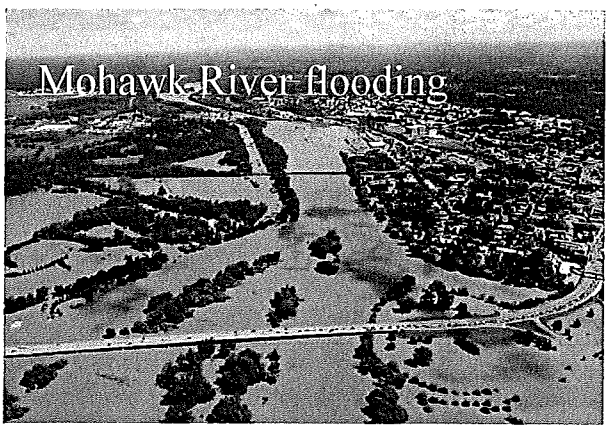
Under a Joint New York and Vermont State of Emergency, A.DiCesare Associates responded immediately to perform underwater inspection and fathometer survey, evaluation, and detailed report preparation for the plagued Lake Champlain Bridge between New York and Vermont. In order to document severe structural cracks found in the concrete piers, A.DiCesare Associates utilized high-pressure water blasting to clean heavily encrusted substructure units. Extensive underwater video recording and underwater still photographs used to augment the detailed inspection findings.

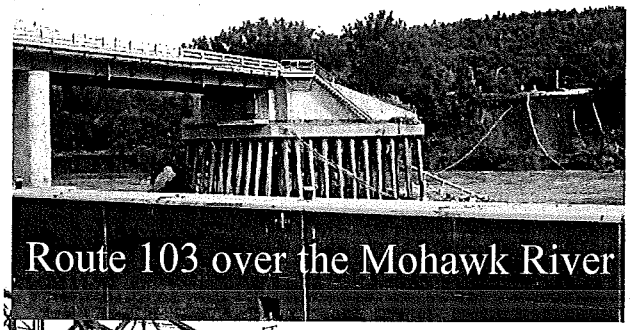
Underwater inspection findings considered as one of the primary factors to demolish the entire structure within two months of its initial closing. Pre and post demolition fathometer survey used to establish navigable channel.

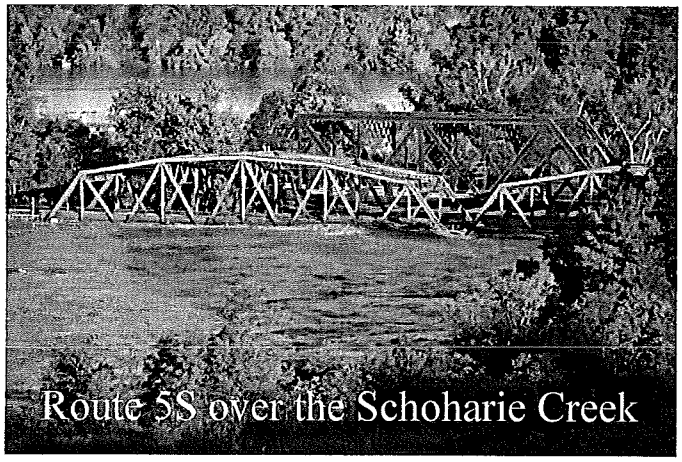


Project: ***2011-2013 Underwater Inspection and Fathometer Survey of Bridges within New York***
Location: ***Upstate East (R1, 2, 7, 8, & 9)***
Owner: ***New York State Depart. of Transportation, Mr. Todd Hermann (518) 457-9802***
Project Status: ***On Schedule & On Within Budget***

A.DiCesare Associates is in charge of the biennial underwater inspection and fathometer survey of approximately 300 bridges throughout NYSDOT's Regions 1, 2, 7, 8, & 9 (New York Upstate East). Project includes the use of Engineer/Divers for the development of inspection findings via electronic documentation. Bridges vary from single spans to multiple spans crossing major waterways from New York City (southerly border) to Canada (northerly border) to Vermont (easterly border) to Syracuse (westerly border). Inspection includes a tactile investigation of all structures below water level, as well as protective devices such as fender systems and cofferdams. Fathometer survey conducted via GPS methods utilizing a submersible transponder to record river bottom profile.





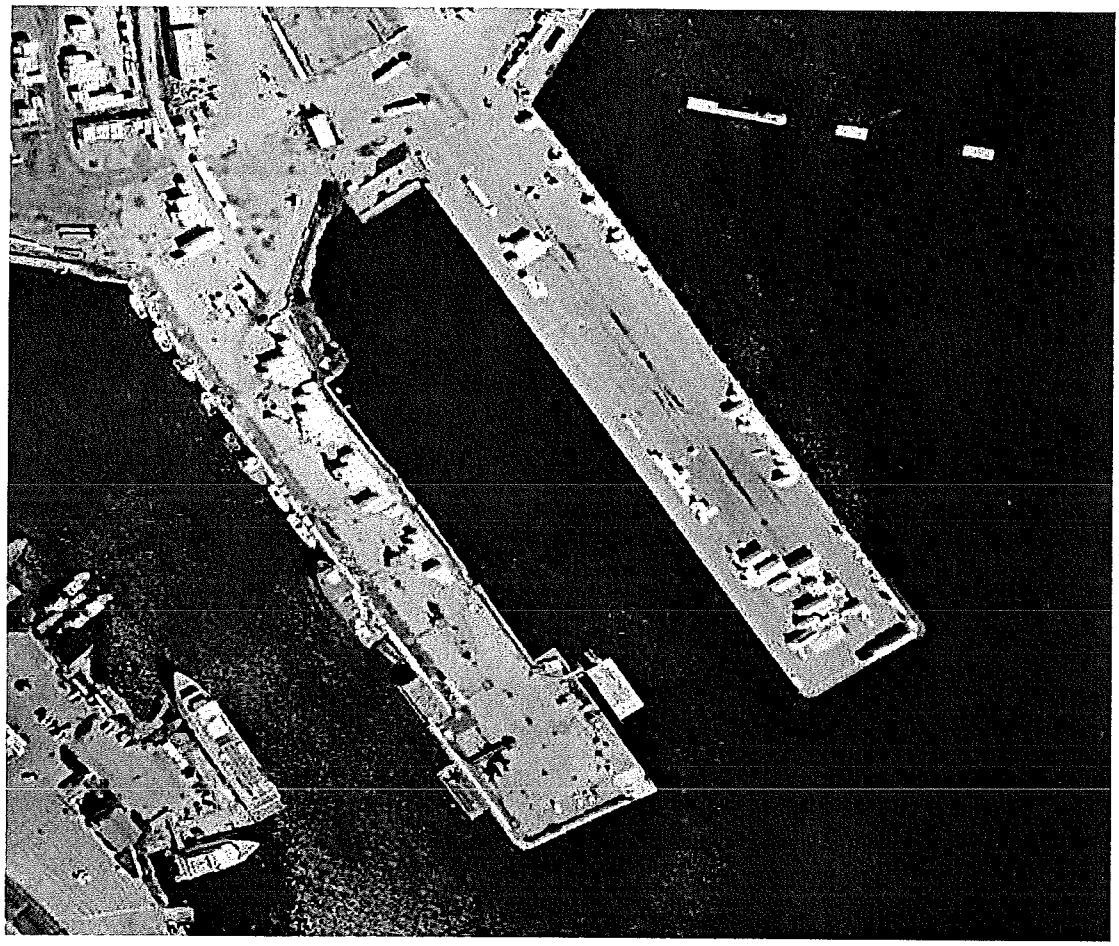


Project: ***Post Tropical Storm Irene Emergency Inspections***
Location: ***New York Upstate East Regions***
Owner: ***New York State Department of Transportation, Mr. Todd Hermann (518) 457-9802***
Project Status: ***On Schedule & Within Budget***

After Tropical Storm Irene A.DiCesare Associates was called in by the New York State Department of Transportation to perform emergency underwater inspection and evaluation, and detailed report preparation for several bridges in the Upstate East Region of New York. The bridges included the bridge carrying Route 103 over the Mohawk River (Lock 9 Bridge) and the bridge carrying Route 5S over the Schoharie Creek.

The underwater inspection findings were critical to determining the necessary remedial action plans.

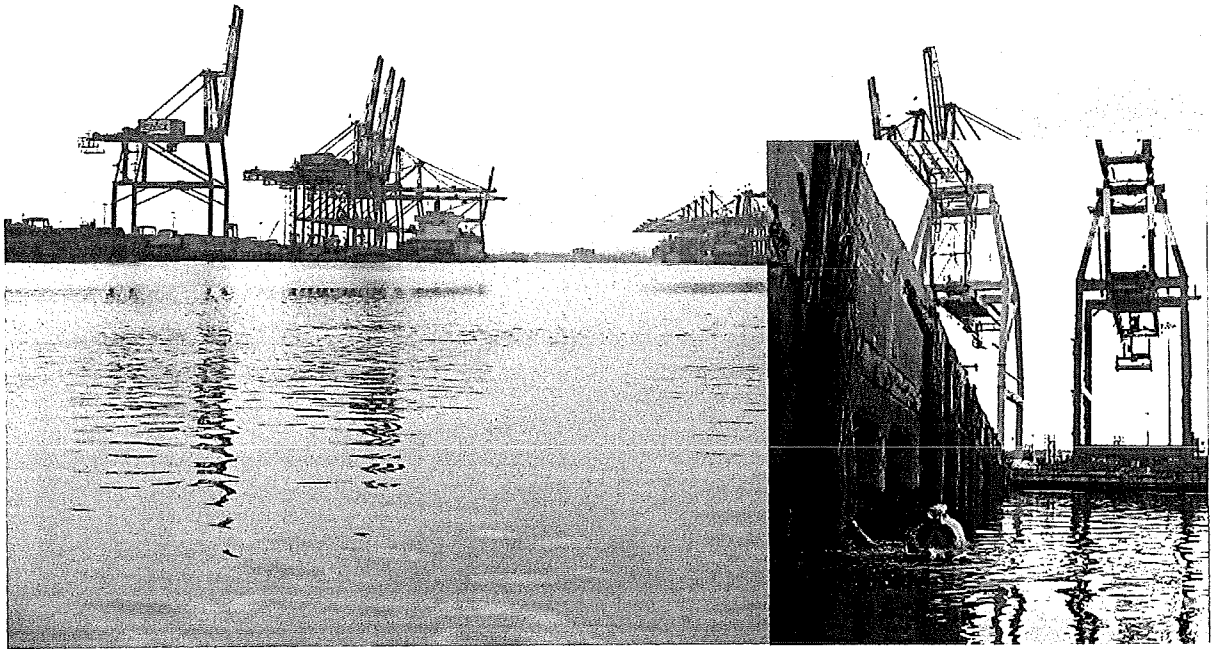
A.DiCesare Associates, P.C.



Project: ***2012 & 2007 Underwater & Above Water Inspection of Admiral Shearer State Pier***
Location: ***New London, Connecticut***
Owner: ***Connecticut Department of Transportation, Mr. Robert Zaffetti (860) 594-3156***
Project Status: ***On Schedule & Within Budget***

A.DiCesare Associates performed an underwater and above water inspection of the Admiral Shearer State Pier, the Central Valley Railroad Pier, Northeast and Northwest Breasting Platforms, and US Navy Mooring Platforms, in the Thames River for the Connecticut Department of Transportation-Office of Ports and Aviation. Project included detailed inspection of timber piles to document marine borer activity, together with ultrasonic thickness measurements and half-cell potential measurements of submerged steel piles to establish loss of structural steel properties, as well as effectiveness of cathodic protection system.

All work performed in accordance with OSHA regulations utilizing a three-man dive crew, led by a Professional Engineer, with surface supplied air, continuous audio and video monitoring, as well as the policies, procedures, and specifications of the US Coast Guard and Homeland Security.



Project: ***2012 & 2010 Underwater & Above Water Inspection of Port Newark Berths 3 & 50***
Location: ***Port Newark, New Jersey***
Owner: ***Port Authority of New York & New Jersey, Mr. Mitch Aldea (973) 792-3940***
Project Status: ***On Schedule & Within Budget***

A.DiCesare Associates performed an underwater and above water inspection of the Port Newark Berths 3 & 50 for the Port Authority of New York & New Jersey. Project included detailed inspection of nearly 1,000 timber piles to identify deficiencies, as well to document marine borer activity. Under deck together with above deck inspection performed to document condition of roadway pavement and identify areas of subsidence.
All work performed in accordance with OSHA regulations utilizing a three-man dive crew, led by a Professional Engineer, with surface supplied air, continuous audio and video monitoring, as well as the policies, procedures, and specifications of the PANYNJ, NJDOT, US Coast Guard and Homeland Security.

- Fiberglass folding rulers, metal yardstick, sounding rods and miscellaneous ropes and lines.
- Cygnus Underwater Ultrasonic Wall Thickness Gauge & Check-line Above Water Gauge.
- Mead HP-302 current velocity gauge.
- Altair 4 Multigas Detector.
- Raytheon DE719 MKII digital fathometer equipped with a 3-degree 200kHz transducer using HYPACK survey software.
- Jon Boats, waders, hip boots
- Closed cockpit fiberglass dive boats with outboard motors. Dive boats include all required Coast Guard accessories, life jackets, flares, marine radio, etc.
- Econoline 250 van(s), dive ladders, paint, and miscellaneous tools including 3,800 psi water blaster.

All of our personnel are familiar with the policies, procedures, and standards, established by the NBIS. Many of our clients are state agencies whom are governed by NBIS standards for their bridge inspection programs.

Please consider the attached as a testament of our experience. We urge the Authority to contact t6he Professional References for an unbiased opinion of our service.

- **Devon Railroad Bridge.** ADA engineers provided the in-depth inspection, load rating analysis, scour susceptibility analysis and rehabilitation design service including life cost cycle analysis for this railroad bridge. The Devon Railroad Bridge is a seven-span twin through truss bridge with a Scherzer bascule span over the navigation channel of the Housatonic River. Built around 1900, the bridge is approximately 1,200 feet length and carries four mainline tracks of Metro-North light-rail commuter service and Amtrak along the Northeast Corridor. ADA provided strain gage testing to augment the analytical evaluation of the bridge by correlating calculated stress with stresses (strains) measured by continuous recording 292 gages of train traffic for a 12-hour period of time. Additional non-destructive testing included ultrasonic thickness measurements and dye penetrant testing.

- **Rehabilitation of the Washington and Main Street Railroad Bridge.** Carrying the Metro-North New Haven line, the Railroad Bridge is a single-span through truss comprising fracture critical eye bars and riveted built-up floor beams and stringers. The scope of work included structural steel component replacement together with Class 1A sandblast cleaning and complete bridge painting. Non-destructive testing was performed including magnetic particle testing, ultrasonic thickness measurements and dye penetrant testing for the detection of fatigue cracks.

ADA owns and maintains state-of-the-art inspection equipment and access techniques for underwater inspections. All equipment is calibrated, tested, and meets or exceeds all industry, Coast Guard and OSHA Specifications. Standard equipment to be used to perform the diving inspection includes:

- 300 feet of dive umbilical for surface supplied air. Umbilical includes air hose, communication line, pneumofathometer hose and tether. 200 feet of additional deck whip air hose to extend dive station .
- Diesel engine air compressors and volume-tanks.
- Superlite SK-27B & SK-27 Diving Helmets.
- Viking vulcanized rubber dry suits & wet suits used for clean, warm water diving.
- Diving accessories including gloves, boots, fins, weight-belts, underwater lights, etc.
- Underwater video recorder with time/date recorder.
- Constant two-way audio communication with recording equipment.
- Underwater 35mm camera, with strobe.

ADA has often provided non-destructive testing services in connection with its bridge inspection services as clients often have concerns about deterioration that is not surficial or to better understand the effects of bridge anomalies on the capacity of the elements inspected. Our engineers have years of experience evaluating and assessing the significance of cyclic loading (fatigue) of bridges. Over the years we have participated in the "healthy" debate of categorizing "riveted" structures in context with establishing an appropriate fatigue category (i.e. Category B, C, D, etc.). We have made structural recommendations based on an interpretation of applicable Codes as it relates to Fatigue Stress Range determinations, and have worked with histograms to equate "true" loading (cycles) with structure performance. We have participated in several extensive strain gage and live load deflection monitoring projects, magnetic particle testing, and ultrasonic testing of bridge pins, have performed ultrasonic and electric potential measurements on submerged structural steel, and timber coring and marine borer identification of submerged timber elements.

Representative projects in which non-destructive testing was performed include:

- **2011 – 2013 Biennial Inspection and Evaluation of 240 Bridges** As a part of the inspection and evaluation of the bridges for NYSDOT, ADA performed UT testing for submerged structural steel.

- **Underwater Inspection of Tappan Zee, Castleton on the Hudson, Schoharie Creek, Byram River and Eastchester Creek—2010.** ADA augmented its underwater inspection with pencil cores and 2" diameter cores to test the timber piles for the presence of Marine borers.

- **Admiral Shearer State Pier New London, Connecticut** ADA performed an underwater and above water inspection of the Admiral Shearer State Pier, the Central Valley Railroad Pier, Northeast and Northwest Breasting Platforms, and US Navy Mooring Platforms, in the Thames River for the Connecticut Department of Transportation-Office of Ports and Aviation. Project included detailed inspection of timber piles to document marine borer activity, together with ultrasonic thickness measurements and half-cell potential measurements of submerged steel piles to establish loss of structural steel properties, as well as effectiveness of cathodic protection system.

ADA has established and updates annually its' **Safe Diving Practices Manual** which mirrors the requirements of ***OSHA Dive Operation Regulations, Title 29 Part 1910/Subpart T*** and ***Commercial Diving Operations*** established by the **Association of Diving Contractors International (ADCI)** but provides greater specificity and checklists honed from years of diving experience.

The key components of our safety manual include:

- **PERSONNEL REQUIREMENTS** which establishes personnel qualificatons including CPR and First Aid training requirements

- **SAFETY PROCEDURES CHECKLIST (To Be Followed Prior to Diving Activity)** which outlines all procedures to be followed prior to the diving activity and includes safety checks such as job hazard analysis, assessing means of water entry and exit and all communication procedures to all personnel involved during the diving operation.

- **ASSIGNMENTS AND RESPONSIBILITIES** which outlines the safety responsibilities for the Team Leader, the Diver(s) and the Tender(s). The ADA Safe Diving Practices Manual provides a checklist of 18 requirements of the Team Leader for planning executing and completing all dives safely. The Diver checklist is comprised of 17 checks to ensure the diver is completely equipped to perform all aspects of the dive safely. The Tender checklist includes a checklist of his/her responsibilities to the diver and the performance of the dive operation.

- **EQUIPMENT PROCEDURES CHECKLIST** which outlines procedures to lay out all dive equipment and spares for the divers and stand-by divers (if required). Special checklists are provided for preparing the gas supplies, including the compressors and activating the breathing gas supplies. A complete checklist is provided for the breathing gas hoses and umbilical. A final test checklist is described with activated breathing supply prior to water entry.

- **EMERGENCY PROCEDURES** which outlines procedures for the following emergency concerns; loss of breathing media, loss of communications, fouled or entrapped diver, injured diver in water, severance of diver's umbilical – gas hose only, severance of complete umbilical, fire in equipment, blow-up or emergency ascent, medical emergencies requiring recompression, equipment failure – diver in the water and emergency evacuation.

ballasted deck bridge between existing abutments. The project includes geometric improvements of the railroad by increasing track profile by two (2) feet in order to increase the vertical clearance beneath the bridge the bridge to 14'-6". Critical to the success of the project was extensive coordination for the support of public utilities, electrified catenary lines, high-voltage overhead feeders and power lines, and requisite staging for the maintenance of continuous track service along the Northeast Corridor, as well as vehicular and pedestrian traffic along Beechwood Ave.

- **On-Call Professional Services contract with Metro-North Railroad (Harlem, Hudson, New Haven Lines)**

ADA participated in an eight year program (2001 to 2008) for the provision of "on-call" engineering services for the inspection, evaluation design, and construction support services associated with the undergrade railroad bridges along the Harlem, Hudson, and New Haven Lines of Metro-North Railroad throughout New York state. Structures include through trusses, through girders, deck girders, and composite construction type bridges. The project included providing engineering support for the Railroad's in-house Track & Structures Department, as well as preparing Contract Documents for solicitation of bids. Initial phase of the project was to prioritize structures in need of rehabilitation or reconstruction and to establish a Capital Budget Program for the eight year cycle.

- **Structural Integrity Inspection, Evaluation, Load Rating Analysis, Fatigue Analysis and Design of Rehabilitation for Railroad Bridges for Metro-North Railroad (Port Jervis Line)**

ADA participated in "on-call" engineering services for the inspection, evaluation, design, and construction support services associated with the rehabilitation of thirty-two (32) undergrade railroad bridges, and load rating analysis of more than seventy (70) structures along the Port Jervis Line of Metro-North Railroad. Structure types include through trusses, through girders, deck girders, concrete arches, masonry arches and composite construction type bridges. The project includes providing engineering support for the Railroad's in-house Track & Structures Department, as well as preparing Contract Documents for solicitation of bids. Initial phase of the project was to inventory and load rate all structures in order to prioritize bridges for repair.

the case that the recommended repairs were performed either by contractors or the Railroad's Maintenance Department. In this way the repairs were often a "preservation strategy" to prolong the service life of the affected bridges. ADA has provided bridge design and rehabilitation services for Conn DOT as well. Representative projects include:

❖ **<u>"On-Call" Professional Services Contract (2001 to present) with AMTRAK:</u>**

- Inspection, evaluation, load rating analysis and superstructure replacement design to convert two (2) Castleton Bridges to closed deck structures. Located along Amtrak's Albany Line. Superstructure replacement consisted of replacing the steel stringers and precast concrete slab decks and strengthening of the existing floor beams and girders. Substructure restoration included installation of bridge weeps, pedestal replacement with precast units, and repair of spalled concrete areas.
- In-depth inspection, load rating analysis, fatigue analysis, life-cost analysis, evaluation, and rehabilitation recommendations for the Plum Street Bridge in Lancaster, PA.
- Inspection, evaluation, load rating analysis and superstructure rehabilitation design for two (2) closed deck structures in Lancaster PA. Located along Amtrak's Harrisburg Line, superstructure rehabilitation consisted of repairs to steel girders, floor beams and stringers, concrete slab decks, and safety walks. Substructure restoration included installation of bridge weeps, pedestal replacement with precast units, and repair of spalled concrete areas.
- In-depth inspection, evaluation, load rating analysis and report preparation in connection with determining the viability of transporting a Special Freight Load Configuration (286-kip freight train) across the Hazelwood Avenue Bridge in Rahway, NJ. Additionally, an in-depth inspection was performed and repair plans prepared to address deficiencies found along more than 2,400 linear feet of retaining wall supporting the railroad embankment in the vicinity of the bridge.
- Inspection, evaluation, load rating analysis and superstructure replacement design to convert the Collington Avenue Bridge in Baltimore, MD to a closed deck structure. Located along Amtrak's Northeast Corridor, superstructure replacement consisted of steel stringers, precast concrete slab decks, supported by existing floor beams and girders. Substructure restoration included installation of bridge weeps, pedestal replacement with precast units, and repair of spalled concrete areas.
- Preliminary and Final Design for the Superstructure Replacement of the Beechwood Avenue Railroad Bridge in New Rochelle, New York. The objective of the project is to replace the existing three-span open deck railroad bridge with a single span closed

responsibilities included the preparation of Railroad Maintenance Memorandums (RMM). All underwater inspections are performed with a three man dive crew utilizing with surface supplied air. All underwater inspection and bridge inspection equipment is owned and maintained by ADA.

- **Underwater Inspection of Tappan Zee, Castleton on the Hudson, Schoharie Creek, Byram River and Eastchester Creek—2010** ADA performed the underwater inspection, evaluation, database management, and report preparation of the Tappan Zee Bridge, Castleton on the Hudson, Byram River, Eastchester Creek and Schoharie Creek for the New York Throughway Authority (Albany Division). The Tappan Zee structure consists of 166 causeway spans, 7 deck-truss spans, and a through-truss main span, which comprises a cantilever/suspended span with flanking anchor spans. The underwater inspection included a hands-on evaluation of more than 14,000 timber piles, 14 concrete filled steel sheet pile cells, and 7 semi-buoyant, hollow-box caissons. Inspection findings were recorded on CADD documents, which may be used in the preparation of rehabilitation plans. All work was performed in accordance with OSHA regulations, as well as the policies, procedures, and specifications of the New York State Thruway Authority, US Coast Guard and Homeland Security. All inspections were conducted utilizing a three-man dive crew, led by a Professional Engineer, with surface supplied air, continuous audio and video monitoring.

- **The 2011 and the 2012 Federal Railroad Administration (FRA) mandated annual inspection program for railroad bridges operating throughout the State of Connecticut.** Routine inspections are required for all "off-system" railroad bridges in accordance with NBIS standards. Rail operators include Naugatuck Railroad Company, Providence and Worcester Railroad Company, and Housatonic Railroad Company. All work performed in accordance with FRA "Bridge Safety Standards-Part 237" with engineers trained and certified in accordance with NHI Safety Inspection of In-Service Bridges. Reporting includes establish of maintenance memoranda recommending repair activities, on a priority basis, to maintain bridges in good condition. ADA has worked as a sub-consultant with Parsons Brinkerhoff (PB), ADA's responsibility included providing the Team Leader and the initial inspection report preparation.

ADA has provided inspection and evaluation services including load ratings for many structures that in turn was the basis for rehabilitation projects for many clients. Providing those services for both AMTRAK, Metro-North directly and Metro-North thru Conn DOT Office of Rail, it was often

rivers. Approximately 325 SSU's will be inspected. Inspection includes a tactile investigation of all structures below water level, as well as protective devices such as fender systems and cofferdams. Fathometer survey is conducted via GPS methods utilizing a submersible transponder to record the river bottom profile. Adherence to OHSA and US Coast Guard regulations is provided for all aspects of field activities.

- **2009-2011 Biennial Inspection and Evaluation of 140 Bridges**: ADA provided professional engineering services for the biennial underwater inspection and fathometer survey of approximately 140 bridges (120 bridges for underwater inspection and 20 bridges for fathometer survey) throughout NYSDOT's Regions 1, 2, 7, 8 & 9 (Upstate East). Above water inspection was also provided for select bridges. Project includes the use of Engineer Divers for the development of inspection findings via electronic documentation. Bridges vary from single spans to multiple spans crossing several major rivers. Approximately 174 SSU's were inspected. Inspection includes a tactile investigation of all structures below water level, as well as protective devices such as fender systems and cofferdams. Fathometer survey is conducted via GPS methods utilizing a submersible transponder to record river bottom profile. Adherence to OHSA (surface supplied air) and US Coast Guard regulations is provided for all aspects of field activities.

- **2011-2012 Biennial Routine and Combined above Water and Underwater Inspection of Metro-North Railroad New Haven Mainline and Branch Line bridges throughout the State of Connecticut for the Connecticut Department of Transportation/Metro-North Railroad.** ADA is performing underwater and routine inspections for approximately 25 bridges along the Metro-North Main Line and Branch Lines in accordance with NBIS standards. ADA's responsibilities include the preparation of Railroad Maintenance Memos (RMM) for all routine inspections. All underwater inspections are performed in accordance with OSHA rules & regulations with a three man dive crew with the inspection diver tethered with surface supplied air and continuous audio communication.

- **2008-2010 In-Depth, Load Rating Analysis and Combined Above Water and Underwater Inspection of Metro-North Railroad New Haven Main Line and Branch Line bridges throughout the State of Connecticut for the Connecticut Department of Transportation and Metro-North Railroad.** ADA performed in-depth inspections, load rating analysis, and underwater inspection for approximately 45 bridges along the Metro-North Main Line and Branch Lines in accordance with NBIS standards. ADA's

RELEVANT EXPERIENCE

A.DiCesare Associates, P.C. (ADA) of Bridgeport, Connecticut, is a multi-disciplinary professional engineering consulting firm. Our experience is tailored to the requirements of this assignment. Marine Condition Inspection (underwater & above water), evaluation, load ratings, rehabilitation design and replacement design is at the heart of the work we do. We have performed these services for numerous clients and on hundreds of waterfront structures throughout the Northeast. ADA maintains a qualified and experienced staff; uses the latest advances in engineering computer software, we strive to stay abreast of state-of-the-art engineering applications and methods of construction. We have invested in technology and training so that we may provide the best engineering services in the marketplace.

ADA is recognized in the "specialized" field of underwater bridge inspection. *Our firm is one of few,* Professional Engineering Organizations that can provide a "complete" three-man Dive Crew capable of performing underwater inspection services. Dive crewmembers have been trained by way of participation in the "Safety Inspection of In-Service Bridges" Program conducted by the Federal Highway Administration. Additionally, dive crewmembers have "honed" their respective inspection and evaluation capabilities through practical, "hands-on" experience, thus qualifying them as experts in the specialized field of underwater inspection.

ADA has quite literally inspected hundreds of structures (above and below water) over its' relatively short history (11 years). Our principals have garnered decades of experience with various bridge owners. We have worked extensively with New York State DOT, Conn DOT, Metro-North, AMTRAK as well as our recent experience (2012 & 2010) performing underwater and above water inspection, evaluation and report preparation for Berth 3 & Berth 50 for the Port Authority of New York & New Jersey.

Representative projects include:

- **2011 – 2013 Biennial Inspection and Evaluation of 240 Bridges**: A.DiCesare Associates (ADA) is providing professional engineering services for the biennial underwater inspection and fathometer survey of approximately 240 bridges (155 bridges for underwater inspection and 85 bridges for fathometer survey) throughout NYSDOT's Regions 1, 2, 7, 8 & 9 (Upstate East). Above water inspection is also being provided for select bridges. The project includes the use of Engineer Divers for the development of inspection findings via electronic documentation. Bridges vary from single spans to multiple spans crossing several major

SECTION H:
RELEVANT EXPERIENCE

SECTION G:
VACANT

A. DiCesare Associates, P.C.
690 Clinton Avenue, Bridgeport, Connecticut 06604
*phone: 203-696-0444 * fax: 203-696-1094 * e-mail: dicesare@adicesarepc.com*

❖ ***Hourly Rates***

The following hourly labor rates are in effect for the provision of engineering services during the Year of 2013:

Title	Hourly Rate
♦ Project Manager	$ 85.00
♦ Project Engineer	$ 55.00
♦ Quality Control Engineer	$ 60.00
♦ PE Diver	$ 65.00
♦ Inspection Diver	$ 60.00
♦ Senior Engineer	$ 45.00
♦ Engineer	$ 40.00
♦ CAD Operator	$ 35.00

It is policy of A.DiCesare Associates to reimburse employees at straight time unless union required payments apply.

Out-of-pocket expenses are billed at cost.

Very truly yours,
The Office of
A.DiCesare Associates, P.C.

Arthur DiCesare

Arthur DiCesare, P.E.
Engineer-in-Charge

SECTION F:
NAMES, TITLES, HOURLY RATES

Sea Beach Line Bridge Inspection, Brooklyn, NY
MTA New York City Transit
The tunnels for this bridge project were originally built between 1914 and 1918, and partial repairs were made between 1980 and 1990. Deterioration of the columns to the bridge led to MTA's request for an inspection. Mr. Smith inspected and provided structural evaluation of the tunnel arches and steel structures supporting the subway building stations, sidewalks, pedestrian ramps, and streets. Findings included rusted steel, deteriorated concrete with exposed steel, and cracks in the concrete walls and columns. The results were recorded and pictures were taken of the damage. Based on this information, a report was produced. Mr. Smith served as Project Engineer.

Newark Liberty International Airport - Design Services for New Data Center (Building 157), Newark, NJ
Port Authority of New York and New Jersey
Mr. Smith served as Civil Engineer. B. Thayer Associates provided maintenance and protection of traffic (MPT) as well as structural engineering services during the re-design of Building 157. The team designed restorations of concrete curb, concrete-island/sidewalk and pavement for areas related to the installation of the communication duct-bank throughout the airport; conducted field investigations for the purpose of identifying the areas that will be excavated and restored; prepared contract drawings in accordance with the civil design standards of the Authority; and conducted field investigations for the purpose of identifying existing signs, pavement markings, parking lot egress/ingress, and possible site constraints during construction. Evaluated the construction feasibility as it applies to traffic safety, and coordinated with the lead disciplines to develop the construction sequence and prepared Maintenance of Traffic (MOT) drawings based on the construction sequences developed with the lead disciplines (general notes, sign data sheets, standard details). Prepared final pavement marking, general notes, and standard detail drawings; developed a Division One Maintenance of Traffic Work Area Protection Specification for the contract booklet; and attended design working meetings for the traffic component. B. Thayer Associates will provide design services during construction (DSDC) (construction administration) for the traffic and civil components.

Reconstruction of City Island Bridge over Eastchester Bay, Bronx, NY
New York City Department of Transportation
B. Thayer Associates is providing Maintenance and Protection of Traffic (MPT) for the NYCDOT at the City Island Bridge over Eastchester Bay in the Bronx. To facilitate reconstruction of the City Island Bridge, B. Thayer Associates completed MPT design plans that showed temporary traffic detours through city streets for day time and night time road closures, pedestrian detours around vehicular traffic by showing warning signs and temporary pedestrian crosswalks, and showed temporary traffic movement in three phases for the construction of a new bridge as follows: 1) traffic was maintained on the existing bridge during the construction of the temporary bridge; 2) traffic was diverted to the temporary bridge during the reconstruction of the new bridge; and 3) traffic was then diverted to the new constructed bridge during the demolition of the temporary bridge. Mr. Smith serves as Lead MPT Engineer.

B. THAYER ASSOCIATES

BRENDAN W. SMITH, EIT
INSPECTOR

EDUCATION AND TRAINING

B.S., Civil Engineering, Manhattan College, 2006

LICENSES AND CERTIFICATIONS

MTA NYC Transit Certification (Track Safety)
MTA Metro-North Railroad Track Safety Certificate
OSHA 10 Hour Safety Training
OSHA 40 Hour HAZWOPPER Certification

PROFILE

Mr. Smith has six years of experience as a Civil Engineer. He is a former New York State Department of Transportation Temporary Construction Inspector (TCI). Mr. Smith is experienced in commercial, public, and industrial projects within the New York metropolitan area. He has led project teams in service to sites in need of major upgrade, and has also offered project support as a subconsultant to larger architectural and engineering firms. His experience encompasses field and office assignments including bridge and road inspection and design. Mr. Smith has most recently served as Lead Engineer in developing Maintenance and Protection of Traffic (MPT) plans for the reconstruction of the Macombs Dam Bridge and City Island Bridge. He is fully versed in New York State and New York City MPT standards and protocol.

EXPERIENCE

Port Jervis Line Undergrade Bridges Engineering Inspection, Orange County, NY
MTA Metro-North Railroad

B. Thayer Associates provided MTA Metro-North Railroad with engineering inspection, reports, underwater inspection, and live load ratings of selected fixed undergrade railroad bridges located on Metro-North's Port Jervis Line. Four of the bridges were considered confined space and inspection was performed in accordance with all OSHA regulations. The scope of work included data collection, field inspection, underwater inspection of select bridges, live load ratings of select bridges, tabulation of results, and prioritization of the recommended repairs. B. Thayer Associates researched and reviewed the data for each bridge and conducted an in-depth inspection, sufficient to support the live load rating performance, of each bridge. Condition rating inspections were conducted on each bridge not requiring a live load rating. All elements of the superstructure and substructure were inspected, including columns, piers, and abutments. Engineering measurements were taken to determine the structure's size, thickness, and dead load weight. Underwater inspection was conducted at low-tide. Live load ratings were performed to determine each bridge's capacity to carry live load. Mr. Smith was the Assistant Team Leader on this project.

responsibilities included preparation of reports defect sketches, description of defects and safety flag documents.

PANYNJ, Facility Condition Survey Services As Requested on a "Call-In" Basis During 2006, 2007 and 2008 – Assignment # 4 Biennial Inspection for LaGuardia Airport Bridges – Team Leader responsible for the condition inspection and report preparation of 16 bridges at LaGuardia Airport in Queens, NY. The bridges include 2 airport entrance roadways over the Grand Central Parkway, departure ramps adjacent to and partially within terminal buildings, 2 enclosed pedestrian walkway bridges connecting the parking garage buildings (Lot 2) to Central Terminal building, and several connector ramp bridges over airport access roads within airport limits. Inspection also included inspection of overhead sign structures mounted to the bridge structure as well as bridge fascia mounted sign structures.

MTA Bridges & Tunnels, 2008 Biennial Inspection of Triborough Bridge – Harlem River Lift Span (Group B) PSC-07-2825B, NY – Team Leader responsible for in-depth inspection and report preparation for the Harlem River Lift Span portion of the Triborough Bridge.

NJ Turnpike, NBIS Inspection of 36 Hudson County Bridges, NJ. - Part B and C Bridge Inspection Projects – Team Leader responsible for the supervision and management of field activities which included scheduling and planning, oversight of *NBIS* field inspection activities, preparation of a report of findings, and recommendations for repair along with cost estimates, inventory, and PONTIS. All work was done in accordance with NBIS and NJ Turnpike Standards.

NYSDOT, 2005-2006 Bronx County Biennial Inspection of 220 arterial bridges (3000 spans), Region 11 - Team Leader for inspection associated with NBIS biennial and interim inspections of 220 arterial bridges in New York County according to NBIS and NYSDOT standards. Structure types include multi-span trusses, floor beam and multi-stringer bridges, concrete arches and concrete-encased steel girder bridges.

NYSDOT, 2003-2004 Biennial and Interim Bridge Inspection, New York County, Region 11 – Team Leader responsible for field inspection of 40 (500 Spans) New York County bridges according to NYSDOT standards. The scope included structures carrying FDR Drive/Harlem River Drive. The structure types include multi-span trusses, floor beam and multi-stringer bridges, concrete arches, concrete-encased steel girder bridges, single and multi-cell concrete box culverts and steel plate arches. Project responsibilities included preparation of inspection reports, recommendations for repair along with cost estimates, inventory, and seismic analysis.

MTA Bridges and Tunnels, Inspection of Brooklyn Battery Tunnel – Team Leader responsibilities included structural condition inspection of fresh air and exhaust air tunnels, identification of type and nature of cracking and spalling of concrete, recording structure movement, and location of source of water seepage. A comprehensive report with detailed sketches describing results of structural inspection efforts was prepared.

HARSHAD (HARRY) SHAH, PE *KS Engineers, P.C.*
Inspection Team Leader

EDUCATION
MS/Civil/Structural Engineering, Brigham Young University, Utah, 1973
B.E. in Civil Engineering, University of Bombay, Bombay, India, 1970

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS
Professional Engineer – NJ (#24GE03406300) and NY (# 064771-1)

TRAINING
NHI, Bridge Inspection Refresher Course, July 2006 (Course # 130053)
NYSDOT, Bridge Inspection Training, 1994
NJDOT, National Highway Institute – Safety Inspection Training, 1994
Asbestos Inspector Training Course – 2003
NYSDOT - Bridge Inspectors NDE Showcase, March 13, 2008

EXPERIENCE SUMMARY
Mr. Shah has over 25 years of in-depth experience in all aspects of bridge inspections. His experience includes structural engineering design assignments on a broad spectrum of projects. His bridge inspection experience includes over 500 bridges of varying degrees of complexity plus scour and seismic potential. His inspection experience includes structural inspections and review of all previous inspections, inspection of Fracture Critical Members, FHWA SI&A Form updates and structural analysis to determine load ratings. Some of his relevant project experience includes:

NJ Transit Undergrade Bridge and Diving Inspection – Group A – Team Leader responsible for inspecting, rating analysis and reporting for the 52 NJ Transit Undergrade Bridges throughout New Jersey. Bridges included steel stringers, floorbeams, girders (deck girders and through girders), and trusses as well as concrete frames and slabs. Inspections included fracture critical members and fatigue details.

NYSDOT, 2010 – 2011 Biennial Bridge Inspection Region 2 (D030700) – Team Leader for the biennial inspection of bridges located throughout Region 2. Project consists of the in-depth hands on inspection of bridge approaches, decks, superstructures, substructures, highway safety features, bridge channels, substructure scour, fatigue details, vertical and horizontal clearances.

MTA Bridges & Tunnels, Biennial Inspection of the Verrazano Narrows Bridge, NY (PSC-09-2860D) – Team Leader for the biennial inspection of approach spans of the Verrazano Narrows Bridge. The project included hands-on inspection of the concrete bridge deck, steel stringers, floorbeams, girders and piers.

MTA Bridges & Tunnels, 2009 Special Inspection of Triborough Bridge – Harlem River Lift Span (Group B), NY – Team Leader responsible for special inspection for the Harlem River Lift Span portion of the Triborough Bridge. Inspection included steel stringers, floorbeams, girders, and truss members including fatigue details.

NYSDOT, 2008 – 2009 Biennial Bridge Inspection Region 2 (D030512) – Team Leader for the biennial inspection of bridges located throughout Region 2. Project consists of the in-depth hands on inspection of bridge approaches, decks, superstructures, substructures, highway safety features, bridge channels, substructure scour, fatigue details, vertical and horizontal clearances.

MTA Bridges & Tunnels, Inspection of Queens Midtown Tunnel, NY – Team Leader responsible for inspection of Manhattan and Queens Plazas (excluding toll booths). This inspection included but was not limited to roadways, sidewalks, curbs, roadway signage, traffic light and sign supports, retaining walls, railings, all publicly accessible areas, fences, light poles, stairs, drain scuppers and troughs from tunnel portal to the property limits. Project

NJ Transit, Inspection of 59 NJ Transit Bridges for 2003 (Group - D), NJ – Project Manager/Lead Team Leader responsible for the in-depth inspection of the NJ Transit structures. Responsible for the review of drawings; evaluation of structural members; preparation of field sketches; assisting in the preparation of condition survey and biennial reports and load rating calculations for many structures.

MTA Metro-North, Engineering Design Services for 15 Undergrade Railroad Bridges (Contract No. 9438, Task No. 019), NY – Project Manager responsible for engineering design services for 3 undergrade bridges for this Metro-North project. ***KSE's*** scope included data collection, field survey and inspection; bridge rating; bridge repairs report; preliminary design; final design; and construction support services.

NYSDOT 2009-2010 Large Culvert Inspection Project in Region 8 & 9 (D030603) – Project Manager for the inspection of 420 culverts and preparation of inspection reports using the Larger Culvert software. Structural and safety flag reports were produced based on field findings. (05/2009 – 09/2010)

NYSDOT, 2008 – 2009 Biennial Bridge Inspection Region 2 (D030512) – Quality Control Engineer for the inspection of 840 +/- bridges located in Region 2 in the following counties: Fulton, Hamilton, Herkimer, Madison, Montgomery and Oneida. Project consists of the in-depth hands on inspection of bridge approaches, decks, superstructures, substructures, highway safety features, bridge channels, substructure scour, fatigue details, vertical and horizontal clearances. All inspection reports were written using BIPPI software. Work also involved performing Level II load rating and analysis using VERTIS software for all inspected bridges.

NYSDOT, 2006 – 2007 Biennial & Interim Bridge & Culvert Inspection Region 1 (D015543) – Project Manager for the biennial inspection of various bridges located in NYSDOT Region 1. Project consisted of the in-depth hands on inspection of bridge approaches, decks, superstructures, substructures, highway safety features, bridge channels, substructure scour, fatigue details, vertical and horizontal clearances. Responsibilities also included planning work schedule, coordination of special access requirements and report preparation. Reports were completed on laptop using BIPPI inspection program. All filed sketches and data scanned and/or recorded electronically. All flag and final reports submitted to QC/QA via ZIP file. All reports underwent extensive review to fulfill rigid DOT Report guidelines. Submission and corrections were quite involved and continued well after completion of field activity.

NYSDOT, 2006 Biennial Inspection of Queensboro Bridge, NY (D015539) – Team Leader responsible for the inspection of the main span trusses (24 thru 30) including eyebars, verticals, diagonals, struts, and portal bracings; upper level superstructure floorbeams, stringers, sub-floorbeams, deck structural, lighting and signage, top of deck, scuppers, drainage system and overhead sign structures on the Manhattan approach and Queens approach. Main span trusses were inspected by free climbing and the superstructure elements were inspected using a bucket van at night incorporating MPT and requiring coordination with ongoing construction project.

JACOB PERLMUTTER, P.E. *KS Engineers, P.C.*
Inspection Team Leader

EDUCATION

BS/Civil Engineering, Rutgers University, New Brunswick, NJ, 1981

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Professional Engineer - NJ (#24GE03764800, Received 1993; Expires: 4/30/2012); NY (#070751, Expires: 10/31/2011)
NHI Course 130053A, Bridge Inspection Refresher Course (issued: 01/2008)
NHI Course, Inspection & Maintenance of Ancillary Highway Structures, (06/2005)
NHI Course #130078, Fracture Critical Inspection Techniques for Steel Bridges, May 2011
NHI Course #13051, Bridge Management Training - Inspection Session, June 1998
NHI Course #13055, Safety Inspection of In-Service Bridges, November 1994
ESRI Introduction to ArcGIS I, 3/4/2005
NYSDOT - Bridge Inspectors NDE Showcase, March 13, 2008

TRAINING

GIS & Mapping Software, 16 PDH (Issued: 3/4/2005)

EXPERIENCE SUMMARY

Mr. Perlmutter has 27 years of experience in project management; project engineering; bridge replacement and rehabilitation design; light rail structural design; construction supervision; inspection of bridges, buildings, airports, and marine facilities; and resident engineering for bridge and highway construction projects. His relevant project experience includes:

NYSDOT, 2010 – 2011 Biennial Bridge Inspection Region 2 – Quality Control Engineer for the biennial inspection of bridges located throughout Region 2. Project consists of the in-depth hands on inspection of bridge approaches, decks, superstructures, substructures, highway safety features, bridge channels, substructure scour, fatigue details, vertical and horizontal clearances.

NJ Transit, Undergrade Railroad Bridge Inspection and Diving Inspection (Group A), NJ – Lead Team Leader responsible for inspecting, rating analysis and reporting for the 52 NJ Transit Undergrade Bridges throughout New Jersey. Bridges included steel stringers, floorbeams, girders (deck girders and through girders), and trusses as well as concrete frames and slabs. Inspections included fracture critical members and fatigue details.

NJ Transit, Undergrade Railroad Bridge Inspection and Diving Inspection (07-043 Group E), NJ – Lead Team Leader responsible for inspecting, rating analysis and reporting for the 31 NJ Transit Undergrade Bridges throughout New Jersey. Bridges included steel stringers, floorbeams, girders (deck girders and through girders), and trusses as well as concrete frames and slabs. Inspections included fracture critical members and fatigue details.

Metro-North, Port Jervis Line Structural Rehabilitation – Inspection, Load Rating Analysis & Design (Contract 9438, Task 9438A02057), NY – Project Manager responsible for the in-depth ("hands on") inspection and structural load ratings for undergrade railroad bridges on Port Jervis Line. Work included the hands-on inspection and report preparation of 30 undergrade bridges; and structural rating of 24 bridges in accordance with AREMA and Metro-North specifications. The types of structures being inspected and rated include concrete arches, culverts, deck girder bridges, steel thru girder bridges, and rail top bridges. The bridges range from 1 to 2 spans.

- **Project Engineer** for the in-depth inspection, evaluation, load rating analysis and superstructure replacement design of the Marshall Street Railroad Bridge in Lancaster, Pennsylvania for ***Amtrak Railroad.***

- **Project Engineer** for the in-depth inspection, evaluation, load rating analysis and superstructure replacement design of the Collington Avenue Railroad Bridge in Baltimore, Maryland for ***Amtrak Railroad.***

- **Project Engineer** for the in-depth inspection, evaluation, load rating analysis and superstructure replacement design of the Hazelwood Avenue Railroad Bridge in Rahway, New Jersey for ***Amtrak Railroad.***

- **Project Engineer** for the in-depth inspection, evaluation, load rating analysis and superstructure replacement design of the Amtrak Railroad Bridge over Mother Brook in Boston, Massachusetts for ***Amtrak Railroad.***

- **Project Engineer** for the 2007-2008 Inspection and load rating analysis of twenty-five (25) MNRR Undergrade Railroad Bridges along the New Haven, Harlem & Hudson lines in New York State for ***Metro-North Railroad.***

- Project Engineer for the In-Depth Inspection, Evaluation, Load Rating Analysis, Strain Gage Testing, Report Preparation, and Rehabilitation Design for the Devon Railroad Bridge over the Housatonic River for ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Project Engineer** for in the 2004-2005 in-depth inspection, load rating analysis, structural integrity prioritization and rehabilitation design of 75 railroad bridges along ***Metro-North Railroad's Port Jervis Line***. Structure types range from concrete arches and culverts to steel thru girder/floor beam/stringer bridges to thru trusses.

- **Project Engineer** for the 2002-2004 in-depth inspection, evaluation, load rating analysis, and rehabilitation design for fifteen (15) ***Metro-North Railroad Bridges*** along the New Haven, Harlem and Hudson lines.

- **Project Engineer** for the Feasibility Study, Preliminary and Final Design of the Replacement of the Fairfield Avenue Railroad Bridge and subsequent roadway widening for capacity improvement and lowering for vertical clearance in Bridgeport, Connecticut for ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Project Engineer** for the in-depth inspection and load-rating analysis of the fixed spans of the Saugatuck River Railroad Bridge in Westport, CT for the ***Connecticut Department of Transportation.***

- **Project Engineer** for the Washington and Main Street Bridge, Norwalk, CT, monitoring ultra-sound testing of bridge pins and some structural steel repairs for the ***Connecticut Department of Transportation/Metro-North Railroad***.

Sergei Yarmolinsky, P.E. **Project Engineer**

Licensed Professional Engineer: Connecticut

Education: Science Educational Center "Algorithm", Minsk, USSR
Moscow Educational Center of the USSR Ministry of Paper and Pulp Mill
The Archangelsk Polytechnic Institute, USSR
Faculty of Industrial and Civil Engineering
Master of Science in Engineering

Relevant Experience:

Mr. Yarmolinsky has more than thirty-five (35) years of structural engineering experience. His experience has been centered on railroad bridge inspection, evaluation, load rating and railroad bridge rehabilitation design. A vast majority of project experience has been for ***Metro-North Railroad and Connecticut Department of Transportation.***

Projects of relevance include:

- **Project Engineer** for the Feasibility Study, Preliminary and Final Design of the Replacement of the Sound Beach Avenue and Tomac Avenue Railroad Bridges and subsequent roadway widening for capacity improvement and lowering for vertical clearance in Greenwich, Connecticut for ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Project Engineer** for the Feasibility Study, Preliminary and Final Design of a new 60-foot span closed deck Railroad Bridge (Reed Street Extension) to support ***Metro-North Railroad's*** Danbury Branch Line in Norwalk, Connecticut including roadway design & pump station for the ***City of Norwalk-Department of Public Works.***

- **Project Engineer** for the Feasibility Study Preliminary and Final Design for the Superstructure Replacement of Beechwood Avenue Railroad Bridge in New Rochelle, New York for ***Amtrak Railroad.*** The objective of the project is to replace the existing three-span open deck railroad bridge with a single span closed ballasted deck bridge between existing abutments.

- **Project Engineer** for in the 2008-2010 in-depth inspection, load rating analysis, structural integrity prioritization and rehabilitation design of 45 railroad bridges along ***Metro-North Railroad's New Haven, Danbury, New Canaan and Waterbury Lines*** throughout Connecticut. Structure types range from concrete arches and culverts to steel thru girder/floor beam/stringer bridges to thru trusses for ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Project Engineer** for the inspection, evaluation, load rating analysis and superstructure replacement design including feasibility study to convert two open deck bridges to closed deck structures, along the Albany Line in Castleton, NY for ***Amtrak Railroad.***

- **Project Engineer** for the in-depth inspection, evaluation, load rating analysis and superstructure replacement design of the Plum Street Bridge in Lancaster, Pennsylvania for ***Amtrak Railroad.***

S. Department
Transportation
ederal Highway
dministration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

Julie Georges

has participated in

NHI Course No. FHWA-NHI-130101A

Prerequisite Assessment for Safety Inspection of In-Service Bridges

hosted by

National Highway Institute

Location: *Web-Based Course* ***Hours of Instruction:*** *1 hours*

Date: *7/3/2012*

Richard J. Barnaby, Director
National Highway Institute

U.S. Department
Of Transportation
Federal Highway
Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

Julie Georges

has participated in

FHWA-NHI-130055 Safety Inspection of In-Service Bridges

hosted by

ConnDOT

Date: August 6-17, 2012

Location: Newington, CT

Hours of Instruction: 67

Instructor

Instructor

Local Coordinator

Richard J. Barnaby, Director
National Highway Institute

- Approximately $70 million annual budget for structurally deficient bridges (2004-2011).
- Approximately 150 on-system bridge projects in scoping, design or construction.
- Approximately 85 off-system bridges in scoping, design or construction.

- Responsible for technical support and consultant management for all bridges and other structures in the Major Capital Highway and Bridge Program. Highlights include:
  - $600 million Q-Bridge (I-95 over the Quinnipiac River)
  - $600 million Interchange project (I-95/I-91/Rte. 34) in the Q-Corridor
  - $350 million Moses Wheeler Bridge (I-95 over the Housatonic River)
  - $175 million West River Bridge (I-95 over the West River)
  - $100 million Stevenson Dam Bridge (Rte. 34 over the Housatonic)

- Special Undergrade Metro North Railroad Project in Stamford Connecticut
  - Responsible for preliminary engineering for $300 Million project promoting development to the South End of Stamford Connecticut provided by replacing undergrade railroad bridges with limited vertical and horizontal clearance.
  - Responsible for promoting and receiving Congressional, Developer and Key Stakeholder support

- Special Emergency Rehabilitation Projects Extending Service Life of Poor Bridges
  - Emergency Declaration for the $25 million Aetna Viaduct rehabilitation (I-84 over Amtrak and local roads) including obtaining and planning for Division K funding
  - Emergency Declaration Project for the $10 million West River Bridge rehabilitation including deck and steel repairs to provide additional service life of the bridge until the replacement project can be funded
  - Emergency Declarations for approximately $5 million for deck and steel repairs for the Q-Bridge
  - Emergency Declarations for approximately $10 million for deck and steel repairs for the Moses Wheeler Bridge
  - Emergency Declaration for the $18M rehabilitation of the Arrigoni Bridge
  - Emergency replacement of US Route 7 Bridge in Ridgefield (tanker fire)
  - Emergency replacement of cracked tie plates on Route 190 Bridge in Enfield over the Connecticut River
  - Emergency Declaration for the temporary shoring of the "historic" Comstock Covered Bridge in East Hampton.

- Economic Stimulus Projects
  - Responsible for delivery and reporting for three (3) of the State's ARRA projects.
  - Responsible for delivery and reporting of all municipal ARRA bridge projects.
  - Responsible for the review of the Moses Wheeler TIGER Grant application.

- Responsible for all plans, specifications and estimates prepared by State Bridge Design (from July 2004 through March of 2007)

Julie F. Georges, NBIS, P.E. **Principal Engineer**

Licensed Professional Engineer: Connecticut, New York & New Jersey (pending)

Education: BSCE University of Texas Austin 1983
National Highway Institute of Safety Inspection of In-Service Bridges Training

Professional Engineer with twenty-nine (29) years of diverse management, technical, fiscal and administrative experience working for the Connecticut Department of Transportation. Responsibilities included management of many significant Major Capital Projects, successfully administering projects from initiation through construction. Responsible for developing the majority of the bridge replacement/rehabilitation capital program, including funding eligibility. Responsible for monthly reporting on the status of hundreds of State and Local projects, overseeing project compliance with all relevant federal and state guidelines, including signature authority for several processes within the Pre-construction Stewardship agreement with the Federal Highway Administration. Responsible for the technical and administrative management of independent consultant engineering contracts numbering in the hundreds, ensuring procurement compliance with all relevant State and Federal regulations.

Professional Experience: A. DiCesare Associates (ADA) (September 2011-Present)

- ***Principal Engineer*** for the Final Design of the Replacement of the Sound Beach Avenue and Tomac Avenue Railroad Bridges and subsequent roadway widening for capacity improvement and lowering for vertical clearance in Greenwich, Connecticut for ***Connecticut Department of Transportation/Metro-North Railroad.***

- ***Principal Engineer*** for Preliminary & Final Design of the Replacement/Reconstruction of five (5) bridges throughout the State of Connecticut for ***Connecticut Department of Transportation.***

Professional Experience: Connecticut Department of Transportation (1983 - 2011)

- ***Transportation Principal Engineer of Bridges and Structures (2004 – 2011)***

  - **Primary Program Responsibilities:**
    - Responsible for the administration of Connecticut's Bridge Rehabilitation Program (including Bridge Preservation). This Program involves providing capital improvements for on-system bridges indentified by Bridge Safety and Evaluation to be in poor condition. These lists are provided annually. These on-system bridge projects are typically programmed in the Federal Highway Bridge Program.
    - Responsible for the administration of the Federal Local Bridge Program. This program involves providing capital improvements for off-system bridges determined to be structurally deficient or functionally obsolete by the Connecticut's Office of Bridge Safety and Evaluation.
    - Responsible for the administration of the State Local Bridge Program. This program provides funding for Municipalities to address structurally deficient or functionally obsolete local bridges.

  Highlights include:

State of New York
Department of Transportation

Record of Completion

This is to document that

Ken Mischou

Has Received Instruction in the Methods
of Bridge Inspection Prescribed by the
Structures Design and Construction Division

in token whereof this document is granted

Given at Schenectady, New York March 29-April 1, 2005

Structures Design and Construction Division

Cooperation with the **United States Coast Guard, the US Army Corps of Engineers, and the Connecticut Department of Environmental Protection** were essential for the success of the project.

- **Inspection Diver** for 2003-2004 Biennial Underwater Bridge Inspection Program for bridges in the state of Connecticut for the **Connecticut Department of Transportation**. Underwater inspection and sounding survey of 390 bridges in the State of Connecticut.

- **Inspection Diver** for the 2004 Underwater Construction Inspection in connection with the **State of Connecticut Department of Transportation** rehabilitation of the masonry-type piers and abutments supporting the Middletown Swing Bridge over the Connecticut River. Tasks included a complete pre-construction inspection, periodic underwater construction inspections, and final underwater post construction inspection.

- **Inspection Diver** for the 2004 State Emergency Declaration, (immediate response), employed by the **Connecticut Department of Transportation**, in connection with underwater inspection, evaluation, and preparation of a detailed report with recommendations for the reconstruction of the fender system protecting the Norwalk River Railroad Bridge. Cooperation with the **United States Coast Guard, the US Army Corps of Engineers, and the Connecticut Department of Environmental Protection** were essential for the success of the project.

- **Inspection Diver** for 2003-2004 Biennial Underwater Bridge Inspection Program of the Cross Bay Bridge in Rockaway, New York for the **Triborough Bridge and Tunnel Authority**. The bridge is supported by 37 piers founded on nearly 500 concrete piles of varying heights to a maximum of 35 feet within the channel. Prior water blast cleaning of all piles from mean low water to mud line required for detailed inspection.

Diver, Central Scuba, Thomaston, Connecticut

- Underwater photography and video inspection of dams and gate valves throughout the Northeast.
- Adjustment and repair of gate valves at reservoirs throughout the Northeast.
- Construction of underwater retaining walls using Gabion construction.
- Development of underwater contour maps and establishment of river bottom composition.
- Salvage recovery of cars, boats, and airplanes using heavy equipment from barge, in conjunction with lift bags.
- Setting and adjusting underwater purification system at Lake Warmamaug (CT reservoir).
- Ordering, Selling, and maintaining dive equipment.
- Owning and operating one of the largest dive training facilities in Connecticut.

Kenneth Mischou **Inspection Diver/Tender**

Specialized Training/Certification:

CCIA, OSHA Confined Space Safety Training
American Red Cross CPR and First-Aid Certified
Metro-North "On-Track Protection" Rail Safety Certified
Professional Association of Diving Instructors- Certified Diver
New York State Department of Transportation-Bridge Training Workshop

Relevant Experience:

Mr. Mischou is a Certified Bridge Inspection Diver with thirty-eight (38) years of diving experience of which twenty-four (24) years as a diving instructor. He has performed tasks in the fields of construction, inspection, and training. Projects of significance include the following:

- **Inspection Diver** for the 2005-2008 Underwater Bridge Inspection and Fathometer Survey, Regions 10 and 11. Participated in the underwater inspection and evaluation of 352 SSU's, for the ***New York State Department of Transportation.***

- **Inspection Diver** for the 2006-2007 Underwater Bridge Inspection of bridges within the Western portion of New York State for the ***New York State Thruway Authority.***

- **Inspection Diver** for the 2007 Underwater Bridge Inspection and Fathometer Survey of the TriBoro Bridge over the Harlem River for the ***Triborough Bridge and Tunnel Authority.*** All work performed in accordance with NYSDOT Bridge Diving Inspection & Fathometer Survey Specifications.

- **Inspection Diver** for the 2006-2007 Underwater Bridge Inspection and Fathometer Survey, NYSTA (Albany Division). Performed the underwater inspection and evaluation of nearly 200 SSU'S founded on 14,000+ exposed timber piles supporting Interstate 87 over the Hudson River (Tappan Zee Bridge), as well as the underwater inspection and fathometer survey of Interstate 90 over Schoharie Creek and Interstate 90 (Berkshire Spur) over the Hudson River (Castleton-on-Hudson) bridges for the ***New York State Thruway Authority.***

- **Inspection Diver** for the 2004-2007 Biennial Underwater Bridge Inspection Program for the ***Connecticut Department of Transportation.*** Underwater inspection and fathometer sounding survey of more than 50 complex bridges including the major river crossing of the Quinnipiac River (I-95) in New Haven, CT.

- **Inspection Diver** for the 2004-2005 Biennial Bridge and Overhead Sign Structures Inspection Program for the ***Connecticut Department of Transportation.*** Underwater inspection of several complex bridges including the Quinnipiac River Bridge in New Haven, Connecticut

- **Inspection Diver** for the 2005 State Emergency Declaration, (immediate response), employed by the **Connecticut Department of Transportation**, in connection with underwater inspection, evaluation, and restoration for the reconstruction of the foundation of the Seymour Railroad Bridge due to extensive undermining and scour.

COMMERCIAL DIVING ACADEMY

This is to certify that

Jefferson Tcheou

Having satisfactorily completed the 60 hour course of study
and having complied with all other requirements of the Academy

On this 23rd Day of December 2010

HAZWOPER

This course complies with and exceeds the OSHA (40 Hours) 29 CFR 1910.120 Hazardous Waste Operations and Emergency Response and Commercial Diving in Hazardous/Contaminated Environments(20 Hours) ANSI/ACDE-01-1998

FOUNDER/CEO

DIRECTOR OF EDUCATION

This is to certify that

Jefferson Tcheou

has satisfactorily completed the course of study and having complied with all other requirements of

Air/Mixed Gas Commercial Diver

certifying in

NDT for Magnetic Particle and Ultrasonic Thickness
RP-2D Rigging
Offshore Survival

through Commercial Diving Academy

API Certified Training Provider™
TPCP-0193

on this 23rd day of December 2010

DIRECTOR

FOUNDER/CEO

Certificate of Completion

Jeff Tcheou

has successfully completed

Permit required Confined Space Entry

OSHA 29 CFR 1910.146 Training
Tested On: 8/24/11
Valid Thru: 8/24/14
CEU/CME: 0.2/2.0

certificate number
AB3EB99E-CE80-11E0-B209-C399B2B05DC0

Trained & Tested at:
www.ComplianceTrainingOnline.com

compliance training ONLINE
a division of KRIST INCORPORATED

Commercial Diving Academy

This is to certify that

Jefferson Tcheou

Valedictorian

Having satisfactorily completed the course of study
and having complied with all other requirements of the Academy in
Jacksonville, Florida on this 23rd Day of December 2010

Diploma

With all the honors, rights, privileges and obligations pertaining to

Air/Mixed Gas Commercial Diver

FOUNDER/CEO

DIRECTOR OF EDUCATION

COMMERCIAL DIVING ACADEMY.com
EDUCATION INTEGRITY SAFETY
INTERNATIONAL

- Review of architectural, structural and site plans and surveys in order to produce bid proposals and to coordinate and brief scope of work with field personnel and subcontractors.
- Conduct meetings, manage, train and schedule daily tasks for field, laboratory and office personnel

❖ **Dunkelberger Engineering & Testing, Inc. (August 2005 to April 2007)**

Structural Engineer engaged in the following:

- Produce technical reports pertaining to site suitability and preparation/remediation with considerations given to cost, time and feasibility.
- Perform site inspections to verify compliance with approved plans, specifications and applicable building codes with respect to site suitability, underground utilities, roadways and vertical construction.
- Oversee site remediation, ground improvement operations and construction materials testing.
- Perform field and lab testing in conjunction with ASTM, AASHTO and FDOT specifications.
- Review of architectural, structural and site plans and surveys in order to produce bid proposals and to coordinate and brief scope of work with field personnel and subcontractors.
- Conduct meetings, manage, train and schedule daily tasks for field, laboratory and office personnel.

❖ **Florida Quality Truss, Inc. (January 2003 to August 2005)**

Structural Design Engineer engaged in the following:

- Designed and engineered roof and floor trusses for new construction and retro-fit projects using proprietary software and drafting in AutoCAD in accordance with architectural plans and applicable building codes.
- Interpret product manufacturer's specifications in order to integrate into the design.
- Produce layouts and engineering packages for client as well as shop drawings for manufacturing.
- Assist clients and contractors to troubleshoot and correct truss related problems through site visits and plan review.
- Review of architectural plans and site surveys in order to produce bid proposals.

Jefferson Tcheou, P.E. **On-Site PE Diver**

Specialized Training/Certification:

Professional Engineer - Florida #71163
Commercial Diving Academy
Diver Certification Board of Canada – Unrestricted Surface Supplied Diver
Association of Commercial Diving Educators – Commercial Diver
Dive Medical Technician
HAZWOPER Certification
API R2DP Rigging Certification
NDT Level 2, Underwater VT, MT, UT Certification
NASE SCUBA Divemaster
National Registry of Emergency Medical Technicians
Emergency Medical Technician – Basic
OSHA Confined Space Safety Training
American Red Cross CPR and First-Aid Certified, Blood Borne Pathogen Training

Education:

Florida Atlantic University-BS Engineering Science 2003

Relevant Experience:

Mr. Tcheou, P.E., has 8 years progressive structural engineering, inspection, and testing experience. He has performed tasks in the fields of inspection, construction inspection, engineering and design. Mr. Tcheou is a Valedictorian Graduate of the Commercial Diving Academy and certified as an Air/Mixed Gas Commercial Diver.

- **Inspection Diver** for the 2011-2012 Underwater Bridge Inspection and Fathometer Survey, Regions 1, 2, 7, 8 & 9. Participating in the underwater inspection and evaluation of approximately 300 SSU's for the ***New York State Department of Transportation.***

- **Senior Engineer** for the Underwater Bridge Inspection and Rehabilitation Design of the fire damaged Harlem River Lift Bridge Fender system for ***Metro-North Railroad.*** Designed three design scenarios for the repair of the system.

❖ **Florida Engineering & Testing, Inc. (May 2007 to December 2010)**

Supervising Engineer

- Produce technical reports pertaining to building site plan suitability and preparation/remediation with considerations given to cost, time and feasibility.
- Perform site inspections to verify compliance with approved plans, specifications and applicable building codes with respect to site suitability, underground utilities, roadways and vertical construction.
- Oversee site remediation, ground improvement operations and construction materials testing.
- Perform field and lab testing in conjunction with ASTM, AASHTO and FDOT specifications.

U.S. Department
Of Transportation

Federal Highway Administration

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

National Highway Institute
Certificate of Training

PAUL A. HAEFNER

has participated in

SAFETY INSPECTION OF IN-SERVICE BRIDGES

hosted by

FHWA

Location: NEWINGTON, CT

Date: APRIL 12-23, 2004

Hours of instruction: 74

Paul McGinness
Instructor

Moges Ayele
Director, National Highway Institute
Federal Highway Administration

Coordinator

Director, Office of Professional Development
Federal Highway Administration

State of New York
Department of Transportation

Record of Completion

This is to document that

Paul Haefner

Has Received Instruction in the Methods
of Bridge Inspection Prescribed by the
Structures Design and Construction Division

in token whereof this document is granted

Given at Schenectady, New York March 29-April 1, 2005

Structures Design and Construction Division

- **Inspection Diver** for the 2007 Biennial Above Water and Underwater Inspection of the Admiral Shearer State Pier, Central Valley Railroad Pier, Northeast and Northwest Annex Piers, and Mooring Platforms for the ***Connecticut Department of Transportation.*** Work included ultrasound thickness measurements of structural steel together with half-cell potential measurements of cathodic protection system.

- **Inspection Diver** for the 2003-2005 Biennial Underwater and Above Water Bridge Inspection Programs for the ***Connecticut Department of Transportation.*** Underwater and above water inspection and sounding survey of 390 bridges including 50 railroad bridges throughout the State of Connecticut.

- **Inspection Diver** for the 2003 & 2005 Underwater Inspection of the Devon Railroad Bridge over the Housatonic River for the ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Inspection Diver** for the 2005 Underwater Inspection of the Saugatuck River Railroad Bridge for the ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Inspection Diver** for the 2004 State Emergency Declaration, (immediate response), employed by the ***Connecticut Department of Transportation/Metro-North Railroad,*** in connection with underwater inspection, evaluation, and preparation of a detailed report with recommendations associated with barge impact damage at the Norwalk River Railroad Bridge. Subsequent construction engineering inspection for uncovering submerged communications cable across the Norwalk River.

- **Inspection Diver** for the 2007-2008 Biennial Bridge Diving Inspection and Fathometer Survey Program for the ***New York State Department of Transportation*** throughout NYSDOT Regions 3, 4, 5 & 6 (Upstate West).

- **Inspection Diver** for the 2006 Underwater Bridge and Fathometer Survey, of the Tappan Zee Bridge, Schoharie Creek Bridge and Castleton-on-Hudson Bridge. Project included the inspection and evaluation of approximately 14,000 timber piles and more than 200 SSU'S, as well as the fathometer survey for the ***New York State Thruway Authority.***

- **Inspection Diver** for 2003-2004 Biennial Underwater Bridge Inspection Program of the Cross Bay Bridge in Rockaway, New York for the ***Triborough Bridge and Tunnel Authority.*** The bridge is supported by 37 piers founded on nearly 500 concrete piles.

- **Inspection Diver** for Biennial condition inspection of **Hudson River Park Trust (HRPT)** Piers 25, 26, 84 and 54 in New York City, as part of the multi-million dollar park wide marine inspection and evaluation contract. Preparation of detailed reports with recommendations on reconstruction and rehabilitation (including load calculations, pile posting, wrap evaluations, and structural flagging).

- **Inspection Diver** for Emergency Repairs to **Hudson River Park Trust (HRPT)** Piers 25 and 54 in New York City. Tasks include inspection, report preparation and pile posting to restore a cordoned area to service.

Paul Haefner, NBIS **Inspection Diver**

Specialized Training/Certification:

CCIA, OSHA Confined Space Safety Training
American Red Cross CPR and First-Aid Certified
Metro North "On-Track Protection" Rail Safety Certified
University of Rhode Island - Graduate School of Oceanography Research Dive Team
Professional Association of Diving Instructors- Certified Diver

Education:

University of Rhode Island, B.S. Ocean Engineering
New York State Department of Transportation-Bridge Training Workshop
NICET Level III (Bridge Inspection/Construction)
National Highway Institute Safety Inspection of In-Service Bridges Training

Relevant Experience:

Mr. Haefner has more than 10 years of combined engineering and inspection experience. He has performed tasks in the fields of inspection, evaluation, and report preparation. A majority of Mr. Haefner's experience has been garnered on bridge inspection projects for ***Metro-North Railroad, Connecticut and New York Departments of Transportation.*** Projects of relevance include:

- **Inspection Diver** for the 2009-2010 Underwater Bridge Inspection and Fathometer Survey, Regions 1, 2, 7, 8 & 9. Participating in the underwater inspection and evaluation of approximately 300 SSU's for the ***New York State Department of Transportation.***

- **Inspection Diver** for the 2007-2008 Biennial Bridge Diving Inspection and Fathometer Survey Program for the ***New York State Department of Transportation*** throughout NYSDOT Regions 3, 4, 5 & 6 (Upstate West).

- **Inspection Diver** for the 2010 underwater and above water inspection of the Port Newark Berths 3 & 50 for the Port Authority of New York & New Jersey. Project included detailed inspection of nearly 1,000 timber piles to identify deficiencies, as well to document marine borer activity.

- **Inspection Diver** for the 2005-2008 Biennial Bridge Diving Inspection and Fathometer Survey Program for the ***New York State Department of Transportation*** throughout Regions 10 &11 (Long Island and New York City). Underwater inspection and selective above water inspection of more than 400 substructure units supporting several complex bridges and major multi-span causeways.

- **Inspection Diver** for the 2008-2009 Biennial Routine, In-Depth and Combined Above Water and Underwater Inspection of Metro-North Railroad New Haven Mainline bridges throughout the State of Connecticut for the ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Inspection Diver** for the 2007-2008 Above & Underwater Inspection of twenty-five (25) MNRR Undergrade Railroad Bridges along the New Haven, Harlem & Hudson lines in New York State for including the Harlem River Lift Bridge for ***Metro-North Railroad.***

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

William McLachlan

has participated in

NHI Course No. FHWA-NHI-130101A

Prerequisite Assessment for Safety Inspection of In-Service Bridges

hosted by

National Highway Institute

Location: *Web-Based Course* ***Hours of Instruction:*** *1 hours*

Date: *7/5/2012*

Richard J. Barnaby, Director
National Highway Institute

State of New York
New York State Department of Transportation

Record of Completion

William McLachlan

For the Successful Completion of the Course Titled

Methods of Bridge Inspection

Given at Albany, New York, March 2012

Director, Structures Evaluation Services Bureau

- **Engineer/Inspector/Diver** for the 2010 Pre-Design inspection of the fire damaged Harlem River Lift Bridge Fender system for the ***Metro-North Railroad.*** Designed three design scenarios for the repair of the system. Prepared Final Design Contract Documents.

- **Engineer/Inspector** for the Hazelwood Avenue Railroad Bridge and Retaining Wall Project in Rahway, NJ for **Amtrak**. Work included in-depth inspection, load rating analysis including evaluation of Special Load Configuration (286-kip loading) and rehabilitation design of the steel superstructure of the railroad bridge over Hazelwood Avenue, as well as the inspection of 2,000 linear feet of concrete retaining walls along the railroad R.O.W.

- **Engineer** for the Feasibility Study, Preliminary and Final Design of the Replacement of the Sound Beach Avenue and Tomac Avenue Railroad Bridges and subsequent roadway widening for capacity improvement and lowering for vertical clearance in Greenwich, Connecticut for ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Engineer/Inspector** for the in-depth inspection, evaluation, load rating analysis and superstructure replacement design of the Collington Avenue Railroad Bridge in Baltimore, Maryland for ***Amtrak Railroad.***

- **Engineer/Inspector** for the in-depth inspection, evaluation, load rating analysis and superstructure replacement design of the Amtrak Railroad Bridge over Mother Brook in Boston, Massachusetts for ***Amtrak Railroad.***

- **Engineer/Inspector** for ***Metro-North Railroad***. Performed an inventory and inspection of several hundred drainage structures along the Harlem & Hudson lines of Metro-North Commuter Railroad ROW throughout the State of New York. As part of a detailed hydrologic study and hydraulic analysis and evaluation program to eliminate track flooding during storm events, drainage structures were inventoried via GPS coordinate system and catalogued. Information gathered included structure type, material type, condition evaluation, functionality, serviceability, inlet and outlet conditions.

- **Engineer/Inspector** for the 2007-2008 Above & Underwater Inspection of twenty-five (25) MNRR Undergrade Railroad Bridges along the New Haven, Harlem & Hudson lines in New York State for ***Metro-North Railroad.***

- **Engineer/Inspector** for structural integrity inspection of four (4) highway bridges within Foxwoods Resort complex of roadways for the ***Mashantucket Pequot Tribal Nation.***

- **Engineer/Inspector** for the Devon Railroad Bridge Underwater Bridge Inspection Project located in Devon, CT. This project was performed for the ***Connecticut Department of Transportation/Metro-North*** and included inspection of the bridge piers and preparation of a detailed report.

- **Engineer/Inspector/Bridge Diver Tender** for the 2010 Underwater Bridge and Fathometer Survey, of the Tappan Zee Bridge, Schoharie Creek Bridge and Castleton-on-Hudson Bridge. Project included the inspection and evaluation of approximately 14,000 timber piles and more than 200 SSU'S, as well as the fathometer survey for the ***New York State Thruway Authority.***

William McLachlan, NBIS, EIT **Engineer/Inspection Diver**

Education:

B.E.C.E./2002 University of Connecticut - Structural Engineering

Specialized Training/Certification:

National Highway Institute Safety Inspection of In-Service Bridges Training
CCIA, OSHA Confined Space Safety Training
OSHA 10 – Safety Training
American Red Cross CPR and First-Aid Certified
Metro North "On-Track Protection" Rail Safety Certified
Engineer In Training – State of Connecticut Certified
PADI Trained Diver
New York State Department of Transportation-Bridge Training Workshop

Relevant Experience:

Mr. McLachlan has ten (10) years progressive engineering and inspection experience. He has performed tasks in design and in the fields of bridge inspection, evaluation, load rating analysis and report preparation. Projects of relevance include:

- **Engineer/Inspector/Diver** for the 2011-2012 Biennial Routine and Combined Above Water and Underwater Inspection of Metro-North Railroad New Haven Mainline and Branch Line bridges throughout the State of Connecticut for the ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Engineer/Inspector/Diver** for the 2008-2010 In-Depth and Combined Above Water and Underwater Inspection of Metro-North Railroad New Haven Mainline bridges throughout the State of Connecticut for the ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Engineer/Inspector/Bridge Diver Tender** for the 2009-2010 & 2011-2012 (two consecutive cycles) Biennial Bridge Diving Inspection and Fathometer Survey Program for the ***New York State Department of Transportation*** throughout NYSDOT Regions 1, 2, 7, 8 & 9 (Upstate East).

- **Engineer/Inspector/Bridge Diver** following Tropical Storm Irene (September 2011) for the ***New York State Department of Transportation*** in connection with emergency underwater inspection and evaluation, and detailed report preparation for several bridges in the Upstate East Region of New York. The bridges included the bridge carrying Route 103 over the Mohawk River (Lock 9 Bridge) and the bridge carrying Route 5S over the Schoharie Creek. The underwater inspection findings were critical to determining the necessary remedial action plans.

- **Engineer/Inspector/Bridge Diver** for the underwater and above water inspection of the Port Newark Berths 3 & 50 for the ***Port Authority of New York & New Jersey***. Project included detailed inspection of nearly 1,000 timber piles to identify deficiencies, as well to document marine borer activity. Under deck together with above deck inspection performed to document condition of roadway pavement and identify areas of subsidence.

U.S. Department of Transportation
Federal Highway Administration

National Highway Institute
Certificate of Training

Clay T. Carlson

has satisfactorily completed training in
Safety Inspection of In-Service Bridges

conducted by
Michael Baker Jr., Inc.

Location: *Madison, Wisconsin*

Date: *August 23 - September 3, 1993*

Hours of instruction: *80*

Continuing Education Units: *8.0*

Instructor

Director, National Highway Institute

Coordinator

Federal Highway Administrator

SAFETY TRAINING CERTIFICATE

is hereby granted to:

Clay Carlson

to certify that he has completed training in compliance with the Occupational Safety and Health Administration standard 29 CFR 1910.146

Permit-required Confined Space

Date of Training: August 6, 2008

Scott Pipicelli

Instructor: Scott T. Pipicelli, Senior Safety & Risk Control Consultant
Hettrick Cyr & Associates – 287 Main Street, East Hartford, CT
Ph. (860) 568-2999 Fax (860) 568-1550 www.hettrickcyr.com

New York State
Department of Transportation

PIE Organization#SM000007

CERTIFICATE OF COURSE COMPLETION

This certifies that ***Clay Carlson*** has completed

2006 BRIDGE INSPECTOR'S MEETING

Total # of PDH for course: 7.5

Date: 3/1-2/2006

Louis P DeSol
Director, OHR Management

Angel L. Castro
NYSDOT Internal Continuing Education Coordinator

Course #20060050

State of New York
Department of Transportation

Record of Completion

This is to document that

Clay Carlson

Has Received Instruction in the
Methods of Bridge Inspection
Prescribed by the Office of Structures

in token whereof this document is granted

Given at Albany, New York, March 27, 2009

Office of Structures

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that ***Clay Carlson*** has completed

2009 Bridge Inspection Workshop

Professional Development Hours Awarded: 22

This course is accredited for the profession(s) of: Professional Engineering
Course #20070092

Location: Albany, NY
Date: March 23-27, 2009

Michael A. Shamma

Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state.

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that ***Clay Carlson*** has completed

2011 Bridge Inspectors Meeting: Inspection Refresher

Professional Development Hours Awarded: 8.5

This course is accredited for the profession(s) of: Professional Engineering
Course #20110258

Location: Albany, NY
Date: March 1 & 2, 2011

Michael A. Shamma
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state.

State of New York
New York State Department of Transportation

Record of Completion

Clay Carlson

For the Successful Completion of

NYS Highway Bridge Inspection Refresher Training

(New York State Department of Transportation Bridge Inspectors Meeting)
February 2012, Albany, New York

Director, Structures Evaluation Services Bureau
New York State Department of Transportation

Division Bridge Engineer
Federal Highway Administration

U.S. Department
Of Transportation
Federal Highway
Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

Clay Carlson

has participated in

FHWA-NHI-130091 Underwater Bridge Inspection

hosted by

ConnDOT

Date: *March 10-12, 2010*

Location: *Newington, CT*

Hours of Instruction: 18

Terrence M. Brown

Instructor

Instructor

David M. Malin

Local Coordinator

Joseph S. Toole, Associate Administrator
Office of Professional and Corporate Development

U.S. Department
Of Transportation
Federal Highway Administration

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

National Highway Institute

Certificate of Training

Clay T. Carlson

has participated in

FHWA-NHI-130053A Bridge Inspection Refresher Training

hosted by

Colorado Department of Transportation

Date: *February 22-25, 2011*

Hours of Instruction: *21 hours*

Location: *Denver, CO*

Instructor *David Reser, PE*

Instructor *Christopher Howard, PE*

Local Coordinator *Lynn Armendariz*

Richard Barnaby, Director
National Highway Institute

- **Inspection Diver** for the 2005-2008 Underwater Bridge Inspection and Fathometer Survey, Regions 10 and 11. Participated in the underwater inspection and evaluation of 352 SSU's, as well as the fathometer survey of nearly 100 bridges for the ***New York State Department of Transportation.***

- **Inspection Diver** for the 2007 Underwater Bridge Inspection and Fathometer Survey of the TriBoro Bridge over the Harlem River for the ***Triborough Bridge and Tunnel Authority.*** All work performed in accordance with NYSDOT Bridge Diving Inspection & Fathometer Survey Specifications.

- **Inspection Diver** for 2004 Biennial Underwater Bridge Inspection of the Cross Bay Bridge for the ***Triborough Bridge and Tunnel Authority***. Performed the underwater inspection, as well as cleaning, and survey of 37 piers founded on nearly 500 concrete piles of varying heights to a maximum of 35 feet within the channel.

- **Inspection Diver** for the 2004-2008 Biennial Underwater Bridge Inspection Program for the ***Connecticut Department of Transportation.*** Underwater inspection and fathometer sounding survey of more than 75 complex bridges including the major river crossing of the Quinnipiac River (I-95) in New Haven, CT.

- **Inspection Diver** for the 2008 underwater and above water inspection of the Admiral Shearer State Pier, the Central Valley Railroad Pier, Northeast and Northwest Breasting Platforms, and US Navy Mooring Platforms, in the Thames River for the **Connecticut Department of Transportation**. Project included detailed inspection of timber piles to document marine borer activity, together with ultrasonic thickness measurements and half-cell potential measurements of submerged steel piles to establish loss of structural steel properties, as well as effectiveness of cathodic protection system.

- **Inspection Diver** for the 1993-2004 (6 cycles) Biennial Underwater Bridge Inspection and Fathometer Survey Program for bridges in the State of Connecticut for the ***Connecticut Department of Transportation.*** Underwater inspection and fathometer sounding survey of 390 bridges each cycle for 6 cycles.

- **Inspection Diver** for the inspection of all piers for the ***United States Navy*** in Pearl Harbor, HI; Station Earl, NJ; Station Concord, CA. Tasks included routine and design level inspections, fathometer survey, verifications of as built dimensions, underwater video, still photography, and report preparation.

- **Inspection Diver** for Biennial condition inspection of ***Hudson River Park Trust (HRPT)*** Piers 25, 26, 84 and 54 in New York City, as part of the multi-million dollar park wide marine inspection and evaluation contract. Inspections included a detailed fathometer survey around and under each pier.

- **Inspection Diver** for the 1997-1998 Underwater Bridge Inspection and Fathometer Survey, Regions 1, 2, 7, 8, & 9 (Upstate East) for the ***New York State Department of Transportation***

Clay Carlson, NBIS **Inspection Diver**

Specialized Training/Certification:

CCIA, OSHA Confined Space Safety Training
OSHA 30 Safety Training
American Red Cross CPR and First-Aid Certified
Metro-North "On-Track Protection" Rail Safety Certified
Professional Association of Diving Instructors- Certified Diver
ADC Certification as a Commercial Diving Supervisor #4731
Nitrox Dive Certification (TDI) SOG Dive School (U.S. Army)
New York State Department of Transportation-Bridge Training Workshop
National Highway Institute Safety Underwater Bridge Inspection Training
National Highway Institute Safety Inspection of In-Service Bridges

Relevant Experience:

Mr. Carlson, NBIS has more than 20 years of surface supplied air diving inspection and fathometer survey experience. He has performed tasks in the fields of inspection, fathometer survey, construction inspection and engineering.

- **Inspection Diver** for the 2011-2012 Underwater Bridge Inspection and Fathometer Survey, Regions 1, 2, 7, 8 & 9. Participating in the underwater inspection and evaluation of approximately 300 SSU's for the ***New York State Department of Transportation.***

- **Inspection Diver** for the 2010 & 2006 Underwater Bridge Inspection and Fathometer Survey, NYSTA (Albany Division). Performed the underwater inspection and evaluation of nearly 200 SSU'S founded on 14,000+ exposed timber piles supporting Interstate 87 over the Hudson River (Tappan Zee Bridge), as well as the underwater inspection and fathometer survey of Interstate 90 over Schoharie Creek and Interstate 90 (Berkshire Spur) over the Hudson River (Castleton-on-Hudson) bridges for the ***New York State Thruway Authority.***

- **Inspection Diver** for the 2009-2010 Underwater Bridge Inspection and Fathometer Survey, Regions 1, 2, 7, 8 & 9. Participating in the underwater inspection and evaluation of approximately 300 SSU's for the ***New York State Department of Transportation.***

- **Inspection Diver** for the 2012 & 2010 underwater and above water inspection of the Port Newark Berths 3 & 50 for the Port Authority of New York & New Jersey. Project included detailed inspection of nearly 1,000 timber piles to identify deficiencies, as well to document marine borer activity. Under deck together with above deck inspection performed to document condition of roadway pavement and identify areas of subsidence.

- **Inspection Diver** for the 2009 Underwater Bridge Inspection of the Macombs Dam Bridge over the Hudson River for the ***New York City Department of Transportation.*** All work performed in accordance with NYSDOT Bridge Diving Inspection Specifications.

Certificate of Completion

Joseph Solis

has successfully completed

Permit required Confined Space Entry

OSHA 29 CFR 1910.146 Training
Tested On: 8/25/11
Valid Thru: 8/25/14
CEU/CME: 0.2/2.0

certificate number
D29990BE-CF24-11E0-B209-C399B2B05DC0

Trained & Tested at:
www.ComplianceTrainingOnline.com

compliance training ONLINE
a division of KRIST INCORPORATED

State of New York
New York State Department of Transportation

Record of Completion

Joseph Solis

For the Successful Completion of the Course Titled

Methods of Bridge Inspection

Given at Albany, New York, April 2012

Director, Structures Evaluation Services Bureau

U.S. Department
Of Transportation
Federal Highway Administration

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

National Highway Institute

Certificate of Training

Joseph V. Solis

has participated in

FHWA-NHI-130055 Safety Inspection of In-Service Bridges

hosted by
ConnDOT

***Date**: June 6-17, 2011*

***Location:** Newington, CT*

***Hours of Instruction:** 60*

William R. Gardner PE.
Instructor

Paul McGuinness
Instructor

David M. Maher
Local Coordinator

Richard Barnaby, Director
National Highway Institute

- **Inspection Team Leader** for the inventory inspection of nearly 500 drainage structures throughout New York State for ***Metro-North Railroad.*** Performed an inventory and inspection of several hundred drainage structures along the Harlem & Hudson lines of Metro-North Commuter Railroad ROW throughout the State of New York. As part of a detailed hydrologic study and hydraulic analysis and evaluation program to eliminate track flooding during storm events, drainage structures were inventoried via GPS coordinate system and catalogued. Information gathered included structure type, material type, condition evaluation, functionality, serviceability, inlet and outlet conditions.

- **Senior Engineer** for the 2010 Pre-Design inspection of the fire damaged Harlem River Lift Bridge Fender system for the ***Metro-North Railroad.*** Designed three design scenarios for the repair of the system. Prepared Final Design Contract Drawings & Specifications for construction. Administered all construction phases working closely with Metro-North Railroad.

- **Inspection Team Leader** for the Macombs Dam Bridge Inspection Project, located in New York, NY, for the ***New York City Department of Transportation.*** Work included inspection and rehabilitation design of the bridge piers and preparation of a detailed report.

- **Inspection Team Leader/Senior Engineer** for the Hazelwood Avenue Railroad Bridge and Retaining Wall Project in Rahway, NJ for ***Amtrak Railroad***. Work included in-depth inspection, load rating analysis including evaluation of Special Load Configuration (286-kip loading) and rehabilitation design of the steel superstructure of the railroad bridge over Hazelwood Avenue, as well as the inspection of 2,000 linear feet of concrete retaining walls along the railroad R.O.W.

- **Senior Engineer** for the Feasibility Study, Preliminary and Final Design of the Replacement of the Sound Beach Avenue and Tomac Avenue Railroad Bridges and subsequent roadway widening for capacity improvement and lowering for vertical clearance in Greenwich, Connecticut for ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Inspection Team Leader/Senior Engineer** for the in-depth inspection, evaluation, load rating analysis and superstructure replacement design of the Collington Avenue Railroad Bridge in Baltimore, Maryland for ***Amtrak Railroad.***

- **Inspection Team Leader/Senior Engineer** for the in-depth inspection, evaluation, load rating analysis and superstructure replacement design of the Amtrak Railroad Bridge over Mother Brook in Boston, Massachusetts for ***Amtrak Railroad.***

- **Senior Engineer** for the In-depth Inspection and Load Rating Analysis of Bridge No. 67.54 over Plum Street in Lancaster, Pennsylvania for ***Amtrak Railroad***.

- **Senior Engineer** for the Conceptual, Preliminary and Final Design of the Beechwood Avenue Railroad Bridge Replacement Project in New Rochelle, NY for ***Amtrak Railroad***.

Joseph Solis, NBIS, P.E. **On-Site PE Diver/Team Leader**

Licensed Professional Engineer: New York & Connecticut, New Jersey (Pending)

Education: B.E.C.E/2000/University of New Haven/Structural Engineering

Specialized Training/Certification:

National Highway Institute Safety Inspection of In-Service Bridges Training
New York State Department of Transportation-Bridge Training Workshop
OSHA 10 – Safety Training
American Red Cross CPR and First-Aid Certified
Metro North "On-Track Protection" Rail Safety Certified
Amtrak Safety Training
CCIA, OSHA Confined Space Safety Training

Relevant Experience:

Mr. Solis has more than twelve (12) years combined engineering and inspection experience. He has performed tasks in bridge design and in the fields of inspection, evaluation, load rating analysis, and report preparation. Mr. Solis experience on bridge inspection has been garnered on projects for ***Metro-North Railroad, Amtrak*** and ***Connecticut & New York Department of Transportation.***

Projects of relevance include:

- **On-Site PE Diver** for the 2011-2012 Underwater Bridge Inspection and Fathometer Survey, Regions 1, 2, 7, 8 & 9. Participating in the underwater inspection and evaluation of approximately 300 SSU's for the ***New York State Department of Transportation.***

- **Inspection Team Leader** for the 2011 Program (thirty-three bridges including the Middletown Swing Bridge) & the 2012 Program (fifty-one bridges) Federal Railroad Administration (FRA) mandated annual inspection for railroad bridges operating throughout the State of Connecticut for the ***Connecticut Department of Transportation.*** Routine inspections are required for all "off-system" railroad bridges in accordance with NBIS standards. Rail operators include Naugatuck Railroad Company, Providence and Worcester Railroad Company, and Housatonic Railroad Company. All work performed in accordance with FRA "Bridge Safety Standards-Part 237". Reporting includes establish of maintenance memorandum recommending repair activities, on a priority basis, to maintain bridges in good condition.

- **Inspection Team Leader** for the 2011-2012 Biennial Routine and Combined Above Water and Underwater Inspection of Metro-North Railroad New Haven Mainline and Branch Line bridges throughout the State of Connecticut for the ***Connecticut Department of Transportation/Metro-North Railroad.***

- **Inspection Team Leader/Senior Engineer** for the 2008-2010 Above & Underwater Inspection of forty-five (45) MNRR Undergrade Railroad Bridges, including load rating analysis and inspection of retaining walls along the New Haven lines in Connecticut for the ***Connecticut Department of Transportation/Metro-North.***

This document is a seafarers' identity document for the purpose of the Seafarers' Identity Documents Convention (Revised), 2003, of the International Labor Organization.

SIGNATURE OF BEARER

This recognizes that
David Robinson
has completed the requirements for
CPR/AED—Adult
conducted by
Mid-Fairfield County
Date completed 9/11/2009
The American Red Cross recognizes this certificate as valid for 1 year(s) from completion date.

American Red Cross

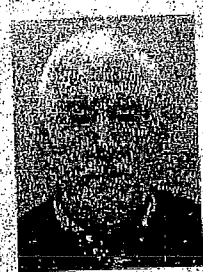
Together, we can save a life

UNITED STATES OF AMERICA

MERCHANT MARINER CREDENTIAL

Issued By: The United States Coast Guard National Maritime Center
Website: http://www.uscg.mil/nmc Phone: 1-888-I-ASK-NMC

Document Number USA000063082



Type PG | Country Code USA | Reference Number 2706391

Full Name DAVID RUSSELL ROBINSON

Present Address

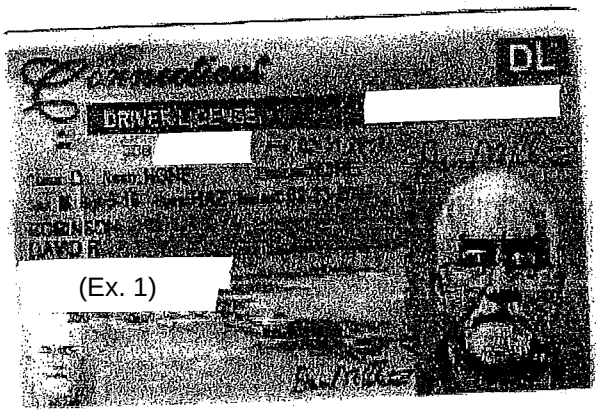
(Ex. 1)

Citizenship USA | Height 5'10" | Hair Color WHI | DOB

Sex M | Weight 230 | Eye Color HAZ | Place of Birth HARTFORD, CT

Issue Date 24-MAY-2010 | Expiration Date 24-MAY-2015

PGUSAROBINSON<<DAVID<RUSSELL<<<<<<<<<<<<<<<<
0000630827USA4503314M1505247<<<<<<<<<<<<<<<8



(Ex. 1)

Association of Diving Contractors International

Cert. # 4014

Expires 05/05/2013

ADC

SURFACE-SUPPLIED AIR DIVING SUPERVISOR

DAVID R. ROBINSON I.D.

Commercial Diver Certification Card

This certifies that

David Robinson

has attended and successfully completed the course

29 CFR 1910.146 Confined Space Safety

[Entrant, Attendant, Supervisor]

conducted by

"Environmental, Health and Safety Services"

MASS. COMPLIANCE

P.O. Box 609
West Falmouth, Massachusetts
(978) 857-9552

#0006
Certificate Number

September 20, 2003
Date of Course

Pass
Grade

N/A
Expiration Date

Beth Comeau DiPietro
Instructor

Beth Comeau DiPietro
Instructor's Signature

State of New York
New York State Department of Transportation

Record of Completion

David Robinson

For the Successful Completion of

NYS Highway Bridge Inspection Refresher Training

(New York State Department of Transportation Bridge Inspectors Meeting)
February 2012, Albany, New York

Director, Structures Evaluation Services Bureau
New York State Department of Transportation

Division Bridge Engineer
Federal Highway Administration

U.S. Department
Of Transportation
Federal Highway
Administration

National Highway Institute

Certificate of Training

NATIONAL HIGHWAY INSTITUTE

David Robinson

has participated in

FHWA – NHI – 130091 Underwater Bridge Inspection

hosted by

Bourne Consulting Engineering

Hours of Instruction: 21

Date: *June 29 – July 1, 2010*

Location: *Franklin, MA*

Instructor

Instructor

Local Coordinator

Richard Barnaby, Director
National Highway Institute

U.S. Department
Of Transportation
Federal Highway
Administration

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

National Highway Institute

Certificate of Training

David Robinson

has participated in

NHI Course No. 130053 –
Bridge Inspection Refresher Training

hosted by

LA DOTD/LTRC

Date: March 22-24, 2011

Location: Alexandria, LA

Hours of Instruction: 18

Instructor

Instructor

Local Coordinator

Richard Barnaby, Director
National Highway Institute

- **On-Site PE Diver** for the Biennial Underwater Inspection including sounding and fathometer survey of 350 Bridges throughout the State of Connecticut for the ***Connecticut Department of Transportation.***

- **On-Site PE Diver** for the Marine Borer and Relieving Platform Inspection Program of more than 25,000 timber piles along the FDR Drive (East River), New York City from 15th Street to 154th Street for the ***New York City Department of Transportation.***

- **On-Site PE Diver** for the Underwater Inspection of sixteen (16) miles of soil retaining wall structures supporting the East River & Harlem River Drives in New York City for the ***New York City Department of Transportation.***

- **On-Ste PE Diver** for the Underwater Inspection of the Marine Transfer Stations for the **New York City Department of Sanitation**. Involved underwater inspection of the entire MTS, including: underwater jetting, ultrasonic thickness measurements of steel piles; cathode potential readings of steel piles and sheeting; ultrathermic burning and welding of steel coupons; and, verification of location and assessment of all underwater structural elements and fathometric survey of 250,000 sq. ft. area surrounding the structure.

- **On-Site PE Diver** for the Underwater Inspection of Generating Stations for **Consolidated Edison of New York.** Involved in-depth video inspection of cooling water intake and discharge tunnels, with penetrations to 700 feet. Soundings and siltation profiles were documented and a condition assessment prepared.

- **On-Site PE Diver** for the Underwater Inspection of Brooklyn Piers 1,2,3,5,6,7,8,9,9A & 12 at the New York Marine Terminal, New York for the ***Port Authority of New York & New Jersey.*** Included underwater inspection of more than 40,000 timber piles, including 10 percent in-depth inspection to determine marine borer infestation.

- **On-Site PE Diver** for the Underwater Inspection of the Kaumalapau Wharf in Lanai HI. The project included in-depth inspection of the concrete wharf structure including confirmation of as-built drawings; rebar location, underwater concrete coring, load rating analysis and report preparation.

- **On-Site PE Diver/Project Manager** for Post 9/11 Investigation on several large waterfront complexes for the NYC Battery Park Authority. Project entailed in-depth inspection and closed circuit video recordings of collapsed-related damage.

- **On-Site PE Diver/Project Manager** for NYSDOT'S West Side Pier Underwater Inspection Program. The project spanned a five (5) year period and initialized with a baseline detailed inspection of 17 piers and retaining walls along 2.5 miles of the Hudson River shoreline. A majority of the piers inspected had no drawings therefore creation of existing construction was needed. Underwater video and still photography documentation used to document rate of change of primary elements for evaluation purposes.

David R. Robinson, NBIS, P.E. **On-Site PE Diver/Team Leader**

Licensed Professional Engineer: New York & Connecticut, New Jersey (Pending)

Education: B.E.C.E./1967/Rensselaer Polytechnic Institute - Civil Engineering
USN Submarine School
US Navy Deep Sea Diving & Salvage Training
ADCI Surface Supplied Air Diving Supervisor
USCG Master 50-ton (Captain's) License
National Highway Institute Safety Underwater Bridge Inspection Training
National Highway Institute Safety Inspection of In-Service Bridges Training
New York State Department of Transportation – Bridge Inspectors Workshop
American Red Cross CPR and First-Aid Certified
PADI Certified (Open Water Diver)
OSHA Confined Space Safety Training
OSHA 30 & 10 Safety Training

Relevant Experience:

Mr. Robinson, P.E. is a Professional Engineer Diver with over 40 years practical, hands-on experience in the inspection, evaluation, planning, design, and construction inspection of marine structures. Mr. Robinson has performed underwater engineering inspection on bridges, piers, wharves, power plants, bulkheads, pipelines, dams, culverts and cable crossings.

In the US Navy, Mr. Robinson served with distinction as operations officer of two (2) ready duty salvage ships during Westpac deployments during the Vietnam conflict. His duties included diving, coordination of multi-vessel task groups during rescue, salvage and emergency sortie operations on numerous large military vessels.

Projects of relevance include the following:

- **On-Site PE Diver** for the 2012 underwater and above water inspection of the Port Newark Berths 3 & 50 for the Port Authority of New York & New Jersey. Project included detailed inspection of nearly 1,000 timber piles to identify deficiencies, as well to document marine borer activity.

- **On-Site PE Diver** for the 2011-2012 Underwater Bridge Inspection and Fathometer Survey, Regions 1, 2, 7, 8 & 9. Participating in the underwater inspection and evaluation of approximately 300 SSU's for the ***New York State Department of Transportation.***

- **On-Site PE Diver** for the 2010 Underwater Bridge Inspection and Fathometer Survey, NYSTA (Albany Division). Performed the underwater inspection and evaluation of nearly 200 SSU'S founded on 14,000+ exposed timber piles supporting Interstate 87 over the Hudson River (Tappan Zee Bridge), as well as the underwater inspection and fathometer survey of Interstate 90 over Schoharie Creek and Interstate 90 (Berkshire Spur) over the Hudson River (Castleton-on-Hudson) bridges for the ***New York State Thruway Authority.***

SAFETY TRAINING CERTIFICATE

is hereby granted to:

Art DiCesare

to certify that he has completed training in compliance with the Occupational Safety and Health Administration standard 29 CFR 1910.146

Permit-required Confined Space

Date of Training: August 6, 2008

Scott Pipicelli

Instructor: Scott T. Pipicelli, Senior Safety & Risk Control Consultant
Hettrick Cyr & Associates – 287 Main Street, East Hartford, CT
Ph. (860) 568-2999 Fax (860) 568-1550 www.hettrickcyr.com

State of New York
Department of Transportation

Record of Completion

This is to document that

Arthur DiCesare

Has Received Instruction in the Methods
of Bridge Inspection Prescribed by the
Structures Design and Construction Division

in token whereof this document is granted

Given at Schenectady, New York March 29-April 1, 2005

Structures Design and Construction Division

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that ***Arthur DiCesare*** has completed

2009 Bridge Inspectors Meeting

Professional Development Hours Awarded: 8.5

This course is accredited for the profession(s) of: Professional Engineering
Course #20090155

Location: Albany, NY
Date: February 24 & 25, 2009

Michael A. Shamma
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state.

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that *Arthur DiCesare* has completed

Bridge Inspectors Meeting - Inspection Refresher

Professional Development Hours Awarded: 7.0

This course is accredited for the profession(s) of: Professional Engineering
Course #20100202

Location: Schodack, NY
Date: March 2 & 3, 2010

Michael A. Shamma
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state.

New York State
Department of Transportation

CERTIFICATE OF COURSE COMPLETION

This certifies that ***Arthur DiCesare*** has completed

2011 Bridge Inspectors Meeting: Inspection Refresher

Professional Development Hours Awarded: 8.5

This course is accredited for the profession(s) of: Professional Engineering
Course #20110258

Location: Albany, NY
Date: March 1 & 2, 2011

Michael A. Shamma
Continuing Education Coordinator

PIE Organization#SM000007

Accreditation of training performed under the auspices of
The Practicing Institute Of Engineering, Inc.
385 Jordan Rd, Troy, NY 12180-7620

To confirm the acceptance of these credits outside NYS, please consult the licensure board of the state.

U.S. Department
Of Transportation
Federal Highway Administration

NATIONAL HIGHWAY INSTITUTE
Training Solutions for Transportation Excellence

National Highway Institute

Certificate of Training

Arthur DiCesare

has participated in

FHWA-NHI-130055 Safety Inspection of In-Service Bridges

hosted by
ConnDOT

Date: *June 6-17, 2011*

Location: ***Newington, CT***

Hours of Instruction: ***60***

William R. Gardner, PE
Instructor

Paul McGuinness
Instructor

David M. Maher
Local Coordinator

Richard Barnaby, Director
National Highway Institute

- **On-Site PE** for the 2009 Underwater Bridge Inspection of the Macombs Dam Bridge over the Hudson River for the ***New York City Department of Transportation.***

- **Project Manager/On-Site PE** for the 2004-2008 Biennial Bridge and Overhead Sign Structures Inspection Program for the ***Connecticut Department of Transportation.*** Underwater inspection and fathometer survey of more than seventy-five (75) complex bridges including the crossing of the Quinnipiac River (Interstate 95).

- **Project Manager/On-Site PE** for the 2001-2003 & 2006-2007 In-depth inspection including underwater inspection, load rating analysis, and rehabilitation design for the Devon Railroad Bridge over the Housatonic River in Milford, Connecticut for the ***Connecticut Department of Transportation.***

- **Project Manager/On-Site PE** for the 2004 State Emergency Declaration, (immediate response), employed by the ***Connecticut Department of Transportation***, in connection with underwater inspection, evaluation, and preparation of a detailed report with recommendations for the reconstruction of the fender system protecting the Norwalk River Railroad Bridge. Cooperation with the United States Coast Guard, the US Army Corps of Engineers, and the Connecticut Department of Environmental Protection were essential for the success of the project.

- **Project Manager/On-Site PE** for the 2003-2004 In-depth underwater inspection and evaluation of the Cross Bay Bridge in Far Rockaway, NY for the ***Triborough Bridge and Tunnel Authority***. Project includes development of detailed plan drawings in Microstation format together with specifications for the rehabilitation of all substructure members. The bridge is supported by 37 piers founded on nearly 500 concrete piles of varying heights to a maximum of 35 feet within the channel.

- **Project Manager/Quality Control Engineer** for the Underwater Inspection of Brooklyn Piers 1,2,3,5,6,7,8,9,9A & 12 at the New York Marine Terminal, New York for the **Port Authority of New York & New Jersey.** Included underwater inspection of more than 40,000 timber piles, including 10 percent in-depth inspection to determine marine borer infestation.

- **Project Manager/Quality Control Engineer** for the Underwater Inspection of the South Bronx Marine Transfer Station for the **New York City Department of Sanitation**. Involved underwater inspection of the entire MTS, including: underwater jetting, ultrasonic thickness measurements of steel piles; cathode potential readings of steel piles and sheeting; ultrathermic burning and welding of steel coupons; and, verification of location and assessment of all underwater structural elements and fathometric survey of 250,000 sq. ft. area surrounding the structure.

- **Project Manager** for the Marine Borer Inspection Program along the FDR Drive (East River), New York City from 15th Street to 154th Street for the ***New York State Department of Transportation.***

Arthur J. DiCesare, NBIS, P.E. **Project Manager/On-Site PE Diver**

Licensed Professional Engineer: New Jersey, New York, Connecticut, Maryland, Delaware, New Hampshire, Pennsylvania, Massachusetts, Maine, Rhode Island & Vermont

Education: B.E.C.E./1981/Manhattan College - Structural Engineering
M.B.A./1990/Sacred Heart University
American Red Cross CPR and First-Aid Certified
OSHA Confined Space Training
PADI Certified (Open Water Diver)
New York State Department of Transportation-Bridge Training Workshop
National Highway Institute Safety Inspection of In-Service Bridges Training

Relevant Experience:

Mr. DiCesare, P.E. has managed the inspection, evaluation, and rehabilitation design of thousands of structures over his thirty-one (31) year career.

- **Project Manager/On-Site PE** for the 2012 & 2010 underwater and above water inspection of the Port Newark Berths 3 & 50 for the Port Authority of New York & New Jersey. Project included detailed inspection of nearly 1,000 timber piles to identify deficiencies, as well to document marine borer activity.

- **Project Manager** for the 2011-2012 Underwater Bridge Inspection and Fathometer Survey, Regions 1, 2, 7, 8 & 9. Participating in the underwater inspection and evaluation of approximately 300 SSU's for the ***New York State Department of Transportation.***

- **Project Manager/On-Site PE** for the 2009-2010 Underwater Bridge Inspection and Fathometer Survey, Regions 1, 2, 7, 8 & 9. Participating in the underwater inspection and evaluation of approximately 300 SSU's for the ***New York State Department of Transportation.***

- **Project Manager/On-Site PE** for the 2005-2008 Biennial Bridge Diving Inspection and Fathometer Survey Program for the ***New York State Department of Transportation*** throughout Regions 10 &11 (Long Island and New York City). Underwater inspection and fathometer of more than 100 bridges and major multi-span causeways.

- **Project Manager/On-Site PE** for the 2010 & 2006 Underwater Bridge and Fathometer Survey, of the Tappan Zee Bridge, Schoharie Creek Bridge and Castleton-on-Hudson Bridge. Project included the inspection and evaluation of approximately 14,000 timber piles and more than 200 SSU'S, as well as the fathometer survey for the ***New York State Thruway Authority.***

- **Project Manager/On-Site PE** for the 2007 Underwater Bridge Inspection and Fathometer Survey of the TriBoro Bridge over the Harlem River for the ***Triborough Bridge and Tunnel Authority.*** All work performed in accordance with NYSDOT Bridge Diving Inspection & Fathometer Survey Specifications.

SECTION E:
RESUMES

PART V - SUBMISION CERTIFICATION

Note: This certification must be completed by an executive or financial officer of the firm at a level no lower than Vice President or Chief Financial Officer, or equivalent, who has the authority to represent the financial information utilized to establish the indirect cost rate included in the CONR 385 package

I, the undersigned, certify that this CONR 385 package includes the CONR385 report, a Federal Acquisition Regulation (FAR) Audit Report, and related financial statements including a balance sheet, Income Statement, Statement of Retained Earnings, and Notes to the Financial Statements. The representations in this CONR 385 package are accurate and complete; that financial information is based on official financial records of A. DICesare Associates, P.C. for the fiscal period specified on the cover page; and that the submitted indirect cost schedule (Part III, Section A-F) and related schedules were prepared in accordance with Part 31 of the Federal Acquisition Regulations (48 CFR 31). All known material transactions or events which have occurred, or are expected to occur in the future, affecting the firm's ownership, organization and indirect cost rates have been disclosed in the body of this report or in supplementary information provided to the Contract Audit Bureau Director, concurrent with this report submission. The documents requested by Items 5, 6 and 7 on Page 3 of this form are attached.

The undersigned also certifies that all costs included in their this submission to establish indirect cost rates are allowable in accordance with the cost principles of 48 CFR 31. This submission does not include any costs which are expressly unallowable under cost principles of the FAR of CFR 31

The undersigned recognizes that the information is submitted for the express purpose of assisting the Department of Transportation in the process of awarding and/or administering a contract or a subcontract; acknowledges that the Department of Transportation may in its discretion, by means which it may choose, determine the truth and accuracy of all statements made herein; acknowledges that intentional submission of false or misleading information may constitute a felony under Penal Law §210.40 or a misdemeanor under Penal Law §210.35 or §210.45, and may also be punishable by a fine of up to $10,000 or imprisonment of up to five years under 18 U.S.C. §1001; and states that the information submitted in this report and any attached pages is true, accurate and complete.

ARTHUR DICESARE
Name of Certifying Official

Arthur DiCesare
Signature of Officer

PRESIDENT
Title

8-27-12
Date

Sworn to before me this

27 day of August 2012
(month) (year)

NOTARY
Commission

4-30-2016
Expiration Date

Notary Public

PART IV - SCHEDULE OF NEW YORK STATE DEPARTMENT OF TRANSPORTATION ACTIVITY

Indicate the amount of direct labor on all NYSDOT projects which were active during the period covered by the CONR 385. (Notes: Please exclude labor on Specific Hourly Rate and Lump Sum Agreements. Amounts may be rounded/estimated within the nearest thousand or hundred thousand.)

NYSDOT DIRECT LABOR THIS PERIOD

PROJECT TYPE

CONTRACT #	C/I	DESIGN	OTHER SPECIFY	TOTAL	SCHEDULED COMPLETION	PRIME CONSULTANT
				$ -		
N/A				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
				$ -		
TOTALS	$ -	$ -	$ -	$ -		

12/31/2011
Current Report Year End

Schedule F. Distribution of Field and Office Expenses

1. Direct Labor

	Amount	Percent
Office Engineering	$621,050	100%
Field Engineering		
Total	$621,050	

2. Indirect Cost

	Total	Field	Office	Non-Attributable
Indirect Technical Payroll	$34,557			$34,557
Administrative & executive Payroll	$221,741			$221,741
Other Indirect Payroll	$85,117			$85,117
Payroll Taxes, Insurance & Fringes	$152,627			$152,627
Occupancy & other Fixed Assets	$104,580			$104,580
Computer / CADD	$1,802			$1,802
Blueprinting / Reproduction				
Other Allowable Expenses	$99,827			$99,827
Less: Excess Compensation				
Subtotal	$700,251			$700,251
Distribution of Non-Attributable				
Total Allowable Indirect Cost	$700,251			

3. Overhead Cost Rate (#2/#1 * 100) **113.00%**

Schedule D. Reconciliation of Total Expenses With Financial Statements

Total Schedule C Expenses (Col. A.)	$833,903.00
Less: Non-Financial Statement Items (Specify) :	
Plus: Total Direct Labor Base (Section B before deductions)	$621,050.00
Other Adjustments (Specify):	
Total Financial Statement Expenses	$1,454,953.00

Schedule E. Indirect Cost Computation

1.	Total Schedule C Allowable (Column f) :	
	Fringe Benefits	$152,627.00
	Indirect Payroll	$341,415.00
	Occupancy & Other Fixed Overhead	$104,580.00
	Other Allowable Expenses	$101,629.00
	Total	$700,251.00
	Less: Excess Compensation (Section A, column i)	$60,909.00
	Net Allowable Indirect Cost	$639,342.00
2.	Total Schedule B Allowable Direct Payroll Base	$620,250.00
3.	Indirect Cost Rate #1/#2 x 100	103.08%

12/31/2011
Current Report Year End

Schedule C (fifth page)

A. DICESARE ASSOCIATES, P.C.

Account Classification (cont'd)	a. Total Amount	b. Amount Allocable To This Reporting Unit	c. Direct Costs This Reporting Unit	d. (b) less (c) Indirect Costs This Reporting Unit	e. Unallowable Per Federal Acquisition Regulations	f. (d) less (e) Allowable Indirect Costs This Unit Reporting Unit
Unallowable Expenses						
Interest	$635.00	$635.00		$635.00	$635.00	
Contributions	$17,300.00	$17,300.00		$17,300.00	$17,300.00	
Entertainment	$1,739.00	$1,739.00		$1,739.00	$1,739.00	
Bad Debts						
Other Losses						
Federal Income Taxes						
Other (Specify) :						
Officer's Life Insurance (Keyman)	$7,161.00	$7,161.00		$7,161.00	$7,161.00	
Advertising						
	$26,835.00	$26,835.00		$26,835.00	$26,835.00	
TOTAL Schedule C	$833,903.00	$833,903.00		$833,903.00	$133,652.00	$700,251.00

12/31/2011
Current Report Year End

Schedule C (fourth page)

A. DICESARE ASSOCIATES, P.C.

Account Classification (cont'd)	a. Total Amount	b. Amount Allocable To This Reporting Unit	c. Direct Costs This Reporting Unit	d. (b) less (c) Indirect Costs This Reporting Unit	e. Unallowable Per Federal Acquisition Regulations	f. (d) less (e) Allowable Indirect Costs This Unit Reporting Unit
All Other Allowable Indirect Expenses						
Auto Expense	$14,539.00	$14,539.00		$14,539.00	$12,663.00	$1,876.00
Auto Insurance	$9,145.00	$9,145.00		$9,145.00	$7,965.00	$1,180.00
Travel	$6,101.00	$6,101.00		$6,101.00		$6,101.00
Dues & Subscriptions	$114.00	$114.00		$114.00		$114.00
License & Permits	$10,074.00	$10,074.00		$10,074.00		$10,074.00
Accounting & Auditing	$23,169.00	$23,169.00		$23,169.00		$23,169.00
Legal & Professional Consulting	$19,714.00	$19,714.00		$19,714.00		$19,714.00
Office Supplies	$9,718.00	$9,718.00		$9,718.00		$9,718.00
Office Expenses	$19,691.00	$19,691.00		$19,691.00		$19,691.00
Technical Supplies						
Office Equipment Rental						
Technical Equipment Rental						
Printing & Reproduction						
Computer Expense	$1,802.00	$1,802.00		$1,802.00		$1,802.00
Business Development						
Research & Development						
Recruiting	$559.00	$559.00		$559.00		$559.00
Professional Activities						
Meals						
Postage	$2,385.00	$2,385.00		$2,385.00		$2,385.00
Employee Education Expense	$2,830.00	$2,830.00		$2,830.00		$2,830.00
Payroll Service Expense	$2,113.00	$2,113.00		$2,113.00		$2,113.00
Property Tax Expense	$1,752.00	$1,752.00		$1,752.00	$1,526.00	$226.00
Misc. Bank Charges	$77.00	$77.00		$77.00		$77.00
Other Project Expenses						
	$123,783.00	$123,783.00		$123,783.00	$22,154.00	$101,629.00

12/31/2011
Current Report Year End

Schedule C (third page) **A. DICESARE ASSOCIATES, P.C.**

Account Classification (cont'd)	a. Total Amount	b. Amount Allocable To This Reporting Unit	c. Direct Costs This Reporting Unit	d. (b) less © Indirect Costs This Reporting Unit	e. Unallowable Per Federal Acquisition Regulations	f. (d) less (e) Allowable Indirect Costs This Unit Reporting Unit
Occupancy & Other Fixed Overhead						
Rent	$72,000.00	$72,000.00		$72,000.00	$16,854.00	$55,146.00
Utilities	$9,727.00	$9,727.00		$9,727.00		$9,727.00
Depreciation	$16,893.00	$16,893.00		$16,893.00	$6,900.00	$9,993.00
Property Insurance						
Prof. Liability & Other Insurance	$29,464.00	$29,464.00		$29,464.00		$29,464.00
Maintenance & Repairs (Machine)						
Business Taxes (Other than FIT)	$250.00	$250.00		$250.00		$250.00
Other (Specify:)						
	$128,334.00	$128,334.00		$128,334.00	$23,754.00	$104,580.00

12/31/2011
Current Report Year End

Schedule C (second page)

A. DICESARE ASSOCIATES, P.C.

Account Classification (cont'd)	a. Total Amount	b. Amount Allocable To This Reporting Unit	c. Direct Costs This Reporting Unit	d. (b) less (c) Indirect Costs This Reporting Unit	e. Unallowable Per Federal Acquisition Regulations	f. (d) less (e) Allowable Indirect Costs This Unit Reporting Unit
Indirect Payroll						
Indirect Technical Time	$34,557.00	$34,557.00		$34,557.00		$34,557.00
Indirect Partner / Principal Time	$260,375.00	$260,375.00		$260,375.00	$60,909.00	$199,466.00
Administrative Payroll	$22,275.00	$22,275.00		$22,275.00		$22,275.00
Training						
Proposal						
Pre-Proposal						
Research						
Downtime						
Vacation	$33,283.00	$33,283.00		$33,283.00		$33,283.00
Sick Leave	$3,072.00	$3,072.00		$3,072.00		$3,072.00
Holidays	$27,564.00	$27,564.00		$27,564.00		$27,564.00
Jury Duty						
Bonus & other pay	$21,198.00	$21,198.00		$21,198.00		$21,198.00
Indirect Payroll Total	**$402,324.00**	**$402,324.00**		**$402,324.00**	**$60,909.00**	**$341,415.00**

12/31/2011
Current Report Year End

Schedule C. Computation of Allowable Indirect Cost
(pages 15-19)

A. DICESARE ASSOCIATES, P.C.

Account Classification	a. Total Amount	b. Amount Allocable To This Reporting Unit	c. Direct Costs This Reporting Unit	d. *(b) less (c)* Indirect Costs This Reporting Unit	e. Unallowable Per Federal Acquisition Regulations	f. *(d) less (e)* Allowable Indirect Costs This Unit Reporting Unit
Fringe Benefits & Payroll Burden						
Employer's FICA	$65,072.00	$65,072.00		$65,072.00		$65,072.00
Federal & State Employment	$5,167.00	$5,167.00		$5,167.00		$5,167.00
Disability Insurance	$6,353.00	$6,353.00		$6,353.00		$6,353.00
Workers Compensation	$17,074.00	$17,074.00		$17,074.00		$17,074.00
Health Insurance & Dental	$58,961.00	$58,961.00		$58,961.00		$58,961.00
Retirement / Profit Sharing						
Group Life Insurance						
Union Welfare Fund						
Other (Specify) :						
	$152,627.00	**$152,627.00**		**$152,627.00**		**$152,627.00**

NOTE:
Incremental Benefits and Payroll Burden Applied to Prevailing Wages and Benefits in excess of normal in Part III-Schedule B if Claimed Directly Net on Prevailing Wages on Contracts should be Deducted as a Direct Cost above.

12/31/2011
Current Report Year End

Schedule B. Computation of Direct Payroll Base

	Total	Amount Allocable To This Reporting Unit
Direct Payroll (including Premium OT)	$621,050.00	$621,050.00
Principal / Partners Direct Time (Total)		
Total Direct Labor (Note: Below)	$621,050.00	$621,050.00
Deductions:		
Direct Portion of Salaries in Excess of Reasonable Compensation (From Part III, Schedule A., Column h.)		
Premium Portion of Overtime		
Prevailing Wages or Benefits in excess of normal rates	$800.00	$800.00
Other (specify)		
Total Deductions	$800.00	$800.00
Total Schedule B	**$620,250.00**	**$620,250.00**

12/31/2011
Current Report Year End

PART III - FINANCIAL SCHEDULES

Schedule A. Senior Executive Compensation

FAR 31.205-6(p)(2)(ii)(B) defines "Senior Executives" as "The five most highly compensated employees in management positions at each home office and each segment of the contractor, whether or not the home office or segment reports directly to the contractor's headquarters."
FAR 31.205-6(a)(6)(i)(A) states "Compensation costs for certain individuals give rise to the need for special consideration. Such individuals include owners of closely held corporations, members of limited liability companies, partners, sole proprietors, or members of their immediate families".

Please complete information below for the reporting unit's TEN highest compensated employees in management positions and any additional employees meeting FAR criteria 31.205 6(a)(6)(i)(A). Note with an asterisk those employees who meet the criteria for FAR 31.205-6(a)(6)(i)(A).

The guideline amount assumes full time work for the reporting unit and must be reduced proportionally to actual hours worked.

		a.	b.	c.	d.	e.	f.	g	h.	i.*
Name	Title	Wages/Salary	Bonus	Deferred Compensation	Employer Contribution to Pension Plan	Total Compensation (a) thru (d)	Estimated ReasonableTotal Compensation**	Compensation exceeding reasonableness (if any)	Direct Excess Compensation	Indirect Excess Compensation
1 Julie Georges		42,420				42,420	198,125			
2 Arthur DiCesare		282,795				282,795	221,886	60,909		60,909
3										
4										
5										
6										
7										
8										
9										
10										
Insert additional sheets as necessary										
Total Schedule A.		325,215				325,215	420,011	60,909		60,909

Total compensation per IRS W-2 Salaries and Wages

* Note: Column g. is to be distributed to column h. and i. based on actual hours charged as direct/indirect.
Carry totals for Column i. to Schedule E.
Carry total for Column h. to Schedule B.
** Determined by firm in accordance with Chapter 7 of the AASHTO Uniform Audit & Accounting Guide and FAR 31.205-6

12/31/2011
Current Report Year End

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
CONTRACT SERVICE FIRM ANNUAL FINANCIAL, OWNERSHIP AND ACCOUNTING PRACTICES REPORT

DETAILED INSTRUCTIONS FOR PART III - FINANCIAL SCHEDULES

1 **Firms which have had a Federal Acquisition Regulations (FAR) audit of their overhead schedule, which covers the same fiscal period as the period covering this CONR, should submit the audit in lieu of CONR 385 Part III, Items C, D, E, and F.**

2 The firm **must** attach a **copy of its general purpose financial statements** for the same fiscal year.

3 For Schedule C, Columns b-f should reference amounts allocable to this reporting unit only. Amounts excluded as unallowable in Column e are to be based on FAR.

4 Any direct cost amounts included in Schedule C, Columns a and b, are to be identified and eliminated in Column c. If allocable amounts (Column b) are different from total amounts (Column a), Column c should represent only the allocable portion of direct costs. If no direct costs are included in an account, Column c should be reported as zero.

5 For Schedule C, the firm should use its own account classifications within the major groupings of "fringe benefits and payroll burden", "indirect payroll", "occupancy and other fixed overhead" and "unallowable expenses".

14 Overhead (indirect cost) is computed and applied based on (check appropriate category):
a. X Actual direct payroll cost
b. __ Cost of services (associated fringes and payroll taxes are allocated to the direct labor base)
c. __ Modified cost of services (some associated fringes and payroll taxes are allocated to the direct labor base)
d. __ Other (specify) _____

If b. or c. are checked, indicate items that are included in the direct labor base:
__ Holidays __ Life Insurance
__ Vacation __ Disability/Workers Comp.
__ Sick Leave/Personal Time __ Retirement Plans
__ Health Insurance __ Other (specify) _____

15 Are standard hours used (check as appropriate): N/A
a. __ To compute labor rates? b. __ To distribute labor costs?
If either of these items are checked, describe the disposition of variance resulting from the difference between standard and the actual timesheet hours worked.

_____

16 Non-reimbursed direct costs are (check as appropriate and explain)
a. X Charged to direct cost accounts _____
b. __ Charged to overhead (indirect cost) accounts _____
c. __ Other (specify) _____

17 Does the firm have related party transaction X Yes __ No
If yes, identify the party and describe the transaction(s) Office Space Rental, Clinton Properties, the amount is adjusted t
cost of ownership as part of FAR audit. Equipment Rental from Infraworks, LLC, all costs associated with Infraworks is treate

18 Are leases capitalized as required by Financial Accounting Standards?
X Yes __ No

19 Does the firm have deferred compensation plans?
__ Yes X No
If yes, is the plan qualified by Internal Revenue Service (IRS)?
__ Yes, IRC Section _____ __ No

20 Does the firm have a retirement plan? X Yes __ No
If yes, is the plan (check as appropriate):
__ Defined benefit pension?
__ Defined contribution pension?
__ Profit sharing?
X Qualified by IRS-IRC Section 401k
Attach a copy of the summary plan description and IRS Letter of Determination.

PART II - GENERAL INFORMATION

A. DICESARE ASSOCIATES, P.C.

1 Number of Employees : 14

2 Location of accounting records: 690 Clinton Avenue, Bridgeport, Connecticut 06604

3 CPA/Accounting Firm Name and Address: Simione Macca & Larrow, LLP, 175 Capital Boulevard, Rocky Hill, Connecticut

4 What other Federal, State or Municiapl entities does the firm perform wor CTDOT, City of Norwalk, CT

5 Name of State/Federal agency performing cognizant review of FAR audit (if any)? CTDOT

6 Type of work performed? Bridge Inspection and Roadway Design

7 What % of contract work is performed on a lump sum basis? 12%

8 What is the firm's policy for capitalizing fixed assets? Any new acquisitions not deemed a repair or supply expense, generally $200 or greater in value are capitalized.

9 Depreciation method used MACRS

10 Do your accounting system and overhead schedules submitted in Part II reflect the accrual basis?
X Yes __ No
If no, describe accounting basis use

11 Type of system (check appropriate space):

		Outside/Inside Service	Inside Manual	Inside Computer	Name of Accounting Software
a.	General Ledger			X	QuickBooks
b.	Job Cost			X	QuickBooks
c.	Payroll	X			Paychex, Inc.
d.	Labor Distribution			X	QuickBooks

12 The firm's accounting system (check appropriate categories):
a. X Allocates direct costs to projects/contracts
b. X Identifies unallowable costs according to Federal Acquisition Regulations
c. __ Allocates indirect costs to projects
d. __ Uses standard costs to predetermined rates for any type of cost

13 List the types of direct cost allocated to projects/contracts:
a. X Travel, meals and lodging
b. X Reproduction
c. __ Computer/CADD
d. X Supplies and equipment
e. X Subconsultants
f. X Other (specify), Mileage, Equipment Rental, Postage and Lab Tests

3 Does the reporting firm have any affiliate not listed in your answers to questions 1 and 2? For purposes of this question your firm and another are affiliates when, either directly or indirectly, one controls or has a measure of control on the other or a third party or parties has a

_____ **yes, list below** ___X___ **no**

FEDERAL ID NO.	COMPANY NAME	ADDRESS

4 Are there any and all shareholders, directors, officers, partners, or proprietors in common between your firm and any firm listed in response to question 1, 2, or 3?

_____ **yes, list below** ___X___ **no**

FEDERAL ID NO.	FIRST NAME, MI & LAST NAME	OTHER FIRM

5 Has the firm, or any firm listed in response to questions 2, 3 or 4, defaulted or been terminated on any contract awarded within the past five years?

_____ **yes** ___X___ **no**

If yes, provide date(s), agency(ies)/owner(s), project(s), contract numbers, and description, including the result:

6 Has the firm been in business under any former names?

___X___ yes _____ no

If yes, provide the name(s).

McLaren & DiCesare Consulting Engineers, P.C.

PART I - IDENTIFYING INFORMATION

A. DICESARE ASSOCIATES, P.C.

NYSDOT may require additional information deemed necessary for its review. Whenever more space is needed to answer any question, or you wish to give further explanation, expand cells as necessary or insert additional sheets. All questions must be answered.

OWNERSHIP, MANAGEMENT, AFFILIATION

1 Identify each person who is, or has been within the past five years, an owner of 5.0% or more of the firm's shares, a director, an officer, a partner or the proprietor. Joint ventures: provide information for all firms involved. Fill in name, % owned, office held; indicate by Y or N whether director, officer or partner.

FIRST NAME	MI	LAST NAME	DOB mm/dd/yy	% OWNED	DIRECTOR (Y OR N)	OFFICER (Y OR N)	TITLE	PARTNER (Y OR N)
Arthur	J	DiCesare	2/19/1958	45.00%	Y	Y	Chairman (non CEO)	N
Julie		Georges	4/19/1960	55.00%	Y	Y	CEO	N

2 Does the firm own, or has the firm or any of the firm's principal owners or officers identified in item number 1 above own or owned, 5.0% or more of any other firm or business?

_____ Yes, list below _____ No

FEDERAL ID NO.	% OWNED	COMPANY NAME	ADDRESS
06-1521323	65%	Infraworks, LLC	690 Clinton Avenue, Bridgeport, CT
06-6495683	50%	B & D Properties, LLC	468 Post Road East, Westport, CT
084-44-3281	100%	Clinton Properties	690 Clinton Avenue, Bridgeport, CT

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

CONTRACT SERVICE FIRM ANNUAL FINANCIAL, OWNERSHIP AND ACCOUNTING PRACTICES REPORT

DEFINITIONS

1	Allocable Cost	Cost which is properly assigned in accordance with Federal Acquisition Regulations, on a consistent and relevant basis. Allocable costs may include direct costs, indirect costs and pooled direct cost.
2	Allowable Cost	Costs which are 1) allowable according to Federal Acquisition Regulations and contract provisions; 2) allocable to the proposed or awarded contract; and 3) reasonable.
3	Contract Service Firm	Any firm seeking to provide services or actively providing services under approved contracts with NYSDOT. The "firm" as referred to in this document generally means the highest level parent entity.
4	Direct Cost	Any cost which can be attributed specifically to a final cost objective, such as products or projects.
5	Direct Payroll Base	That portion of allocable payroll cost related to projects. Allocable payroll cost excludes bonus and the premium portion of overtime, but may include plan amounts. Direct payroll cost will be allocated based on the proportion of work hours properly accrued deferred compensation associated with projects over total work hours, including paid absence hours (normal weekends excepted).
6	General Purpose Financial Statement	Balance sheet, statements of income and cash flow, retained earnings, and financial statement notes as audited, reviewed or compiled by the firm's Independent Public Accountant or Certified Public Accountant.
7	Reporting Unit	The lowest level cost center, responsibility center or profit center for which the firm requests indirect cost reimbursement. Generally, the reporting unit will be the firm.
8	CONR 385 Report	Form CONR 385
9	CONR 385 Package	Form CONR 385 along with a Federal Acquisition Regulation (FAR) audit report (if required), the firm's General Purpose Financial Statements, and Reasonableness of Compensation Analysis

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION
CONTRACT SERVICE FIRM ANNUAL FINANCIAL, OWNERSHIP AND ACCOUNTING PRACTICES REPORT

GENERAL INSTRUCTIONS

1 If under normal business practice, the contract service firm requests overhead reimbursements for more than one reporting unit, a separate report is required for each unit involved in NYSDOT services. Separate worksheets and supporting schedules should be attached for firms required to submit field and office overhead rates pursuant to Department instructions.

2 This document (or attachments in the same format) must be complete and must be signed and notarized on the last page or it will be

3 The firm **must** disclose all audits by other governmental entities and independent CPA firms when submitting this form. When available a copy of all such overhead reports should be submitted with this form.

4 All Parts (I-V) must be completed unless otherwise noted.

5 The three primary records which typically comprise the CONR 385 package (the CONR 385 report, the firm's financial statements, the Federal Acquisition Regulations Audit report and the Reasonableness of Compensation Analysis) should be submitted as seperate attachments when being submitted via e-mail.

6 If the firm's financial statements are not reviewed, compiled or audited by an independent CPA, a detailed chart of accounts and trial balance must be submitted together with adjusting journal entries for the period covered by this report.

7 If you wish to submit Facilities Capital Cost of Money (FCCM), please refer to the "To All Consultants" letter dated October 5, 1990.

8 Partial year information will not be accepted for forward pricing or billing rate changes.

9 Fringe benefit amounts are to include the employer's cost only.

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

CONTRACT SERVICE FIRM ANNUAL FINANCIAL, OWNERSHIP AND ACCOUNTING PRACTICES REPORT

PURPOSE:

1. To provide current overhead rate information for contract billing and pre-contract pricing.
2. To provide basic information on the accounting system and organization of contract service firms for pre-award and post audit purposes.

FILING REQUIREMENTS:

For all consultant firms performing, or desiring to perform, services for NYSDOT, the firm must complete a CONR 385 at the time of designation and annually thereafter. The annual update is required 6 months after the end of the firm's fiscal

SUBMITTAL:

The completed report should be e-mailed to **CONR385@dot.state.ny.us**. Any difficulties in transmitting the information electronically should be directed to Shirleen Barnes, Office of Contract Management at 518-457-2600.

EXEMPTION FROM FREEDOM OF INFORMATION:

Information furnished will be held in strict confidence by NYSDOT and may be protected from public disclosure under the Freedom of Information Law pursuant to ART. 6 Sec. 87(2)(d) as adopted on January 25, 1994.

FORM CONR 385
Revised 10/2011

STATE OF NEW YORK
DEPARTMENT OF TRANSPORTATION

CONTRACT SERVICE FIRM ANNUAL FINANCIAL, OWNERSHIP AND ACCOUNTING PRACTICES REPORT

FIRM NAME: **A. DICESARE ASSOCIATES, P.C.**
DBA NAME, if any

FISCAL YEAR ENDED: **12/31/2011**

CONTACT: **Arthur DiCesare** (Name) **President** (Title)

dicesar@adicesareinc.com
Contact e-mail

SECTION D:
MULTIPLIER

One of our greatest strength is an appreciation for the significance of inspection and reporting. We recognize the value of accurate condition assessment due to the fact that either Capital or Maintenance decisions are made from the information presented.

In summary we can offer:

- Unparalleled relevant experience in the Underwater Inspection and Evaluation of Structures utilizing Engineer Divers.
- Commitment of key personnel to the success and hands-on participation in the project.
- Keen understanding of the "physical" nature of underwater inspection including logistics, scheduling, coordination, maintenance of equipment, and assemblage of proficient crews to accomplish the work.
- Expertise in the field of condition inspection, evaluation, and diagnosis.
- Sufficient depth and breadth of staff to handle the anticipated work.
- Reputation for making the "right" calls on serious conditions.

Please give our expression of interest serious consideration. As an organization, we will be dedicated and work tirelessly for the success of the Program.

Very truly yours,
The Office of
A.DiCesare Associates, P.C.

Arthur DiCesare, P.E.
Engineer-in-Charge

A. DiCesare Associates, P.C.
690 Clinton Avenue, Bridgeport, Connecticut 06604
*phone: 203-696-0444 * fax: 203-696-1094 * e-mail: dicesare@adicesarepc.com*

Dear Selection Panel:

A.DiCesare Associates, P.C. (ADA) is pleased to submit its letter of interest and supporting qualifications for Expert Professional Marine Condition Surveys of Piers and Waterfront Facilities (RFP No. 30225). Our submission is made as a result of a rich history of "specialized" expertise in underwater inspection, combined with above water inspection, evaluation, load rating analysis, and rehabilitation design. *Our firm is one of few,* Professional Engineering Organizations that can provide "complete" three-man Dive Crews capable of performing underwater inspection services. Personnel to be assigned to this assignment possess a strong working knowledge of PANYNJ policies, procedures, protocol for inspection and reporting, as well as the standards prescribed by NYSDOT, NJDOT, AASHTO, NBIS, USCG, & OSHA.

We have participated in database management, submission of standardized forms and comprehensive reports, destructive and non-destructive testing, strain gage testing, and in prioritization planning needed to maintain a "healthy" population of structures. We recognize the need for clear communication with the Authority on the condition of the structures inspected, as well as the need to maintain daily, weekly, and monthly schedules of field activities in order to help assure proper coordination with the Authority, the US Coast Guard, and Homeland Security.

As an organization we stay abreast of state-of-the-art engineering applications and methods of inspection and evaluation. We have invested in technology and training and have participated in many inspection programs, which have extended beyond the tactile inspection of structural elements to include inspection techniques such as dye penetrant testing, ultrasound and magnetic particle testing, electric potential measurements, fathometer survey, side scan sonar, timber coring and marine borer identification, strain gage monitoring, and "live load" deflection monitoring. ADA owns and maintains all inspection equipment, calibrated and tested in accordance with industry and OSHA standards, needed for underwater and above water bridge inspection.

A.DiCesare Associates, P.C. was founded in 2001 and has been deeply involved in the field of underwater and above water inspection services since its inception. We have provided professional marine condition surveys on a number of multiple year programs, for the New York & Connecticut Departments of Transportation, New York State Thruway Authority and Metro-North Railroad. We have provided these services for the PANYNJ at Port Newark Berths 3 & 50 in 2010 and 2012.

Responsive to the requirements of this RFP, ADA has the requisite experience and depth of organization to furnish two (2) three (3) man underwater inspection teams concurrently, as a result of the availability of eight (8) divers. Our PE divers are registered Professional Engineers in the states of New York and New Jersey.

ADA encourages and supports both minority and women business meaningful participation in its projects. We will assign at a minimum, 12% to KS Engineers (MBE-firm) and at a minimum, 5% to B.Thayer Associates (WBE-firm).

SECTION C:
TRANSMITTAL LETTER

ATTACHMENT C

COMPANY PROFILE

REQUEST FOR PROPOSALS FOR PERFORMANCE OF EXPERT PROFESSIONAL MARINE CONDITION SURVEYS OF PIERS AND WATERFRONT FACILITIES AS REQUESTED ON A "CALL-IN" BASIS DURING 2013 (RFP #30225)

1. Company Name (print or type):

   A. DiCesare Associates, P.C.

2. Business Address (to receive mail for this RFP):

   690 Clinton Ave.

   Bridgeport, CT 06604

3. Business Telephone Number: 203-696-0444

4. Business Fax Number: 203-696-1094

5. Firm website: www.adicesarepc.com

6. Federal Employer Identification Number (EIN): (Ex. 1) _ _ _

7. Date (MM/DD/YYYY) Firm was Established: 02 /01 /2001

8. Name, Address and EIN of Affiliates or Subsidiaries (use a separate sheet if necessary):

   N/A

9. Officer or Principal of Firm and Title:

   Julie F. Georges, P.E. Chief Executive Officer

10. Name, telephone number, and email address of contact for questions:

    Arthur J. DiCesare, P.E. Engineer in Charge

    203-696-0444 dicesare@adicesarepc.com

11. Is your firm certified by the Authority as a Minority-owned, Woman-owned or Small Business Enterprise (M/W/SBE)? ☐☑No

    If yes, please attach **Port Authority** certification as a part of this profile.

    If your firm is an M/WBE not currently certified by the Authority, see the Authority's web site – http://www.panynj.gov/business-opportunities/supplier-diversity.html, to receive information and apply for certification.

SECTION B:
ATTACHMENT C