

Matthew James Donahue, PE

(206) 518-4541, matt@structuramgmt.com, www.structuramgmt.com

Matthew James Donahue, PE brings more than 30 years of strategic maintenance, capital project delivery, bridge inspection, engineering research, design consulting, remote field operations, project controls, permitting and construction management experience to his projects. He has a broad background in business development, strategic planning, office management, staff development, executive coaching, union negotiations, capital and maintenance program development and delivery and conflict resolution. Project types in his portfolio include environmental Superfund site remediation, rehabilitative design for fixed and movable bridge and marine structures, cold region logistics and construction, structural and geotechnical earthquake resistant design, underwater structural inspection and water resource management. Mr. Donahue has been charged with executive lead and supervisory responsibilities performed under adverse conditions with several in an international setting.

Education

M.Sc. Structural Engineering, Oregon State University, 2003

B.S. Civil Engineering, University of Illinois at Chicago, 1996

Licenses

PE, State of Alaska, 11696

PE, State of California, 72028

PE, State of Utah, 8838884-2202

PE, State of Washington, 42961

ADCI Surface Supplied Air Diver

PROFESSIONAL EXPERIENCE

Structura Management 3/23 – Present

Strategic asset management for fixed and heavy movable structures including bridges, transportation infrastructure, marine and waterfront facilities and integrated industrial operations. Services include base condition assessment, life cycle cost analysis, maintenance planning, staffing and equipment resource analyses and executive coaching and mentorship.

Seattle Department of Transportation 10/19 – 3/23

Roadway Structures Division Director. Duties include supervision of a 75-person bridge engineering, operations and maintenance team, management of maintenance, engineering, operations and capital program budgets totaling ~\$153M, participation as a training facilitator on the SDOT RSJI team and on the emergency response incident management team. Member of SDOT's senior leadership and strategic planning team that includes lead roles in workforce equity policy and initiatives, development of strategic asset/risk management policy and implementation.

Seattle Department of Transportation 1/18 – 10/19

Roadway Structures Manager in the Capital Projects and Roadway Structures division. Duties include supervision of a 65-person bridge engineering, operations and maintenance team, management of maintenance, engineering, operations and capital program budgets totaling ~\$120M, participation as a training facilitator on the SDOT RSJI team and on the emergency response incident management team.

Seattle Department of Transportation 5/17 – 1/18

Supervising Project Manager in the Capital Projects and Roadway Structures division. Project Management duties include bridge seismic retrofit and transportation safety improvements. Supervisory and administrative duties include mentoring of three fellow Project Managers, revisions to PM guidance documentation and onboarding for DotMaps project coordination software.

Collins Engineers, Inc. 4/11 – 2/17

Executive Regional Manager and PM/ADCI Diver for a highly focused team of engineers located in three west coast branch offices concentrating on transportation infrastructure including above and below water condition surveys and repair design for bridges, bulkheads, piers, wharves, floating dry docks and ship hulls.

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Orion Field Services, Inc. 8/08 – 4/11

Performance of contract-based field engineering services including marine and waterfront structural inspections, condition assessment and report writing, and construction management.

Nanuq, Inc. / Alaska Frontier Constructors 9/06 – 8/08

Construction team leader and project engineer for permitting, design review, cost estimating, scheduling, project expenditure tracking, payroll distribution, procurement and change management and camp management duties for remote, cold regions projects on the North Slope of Alaska. Liaison for procurement of labor from four Union local organizations and negotiation of contract terms.

BERGER/ABAM Engineers Incorporated 11/04 – 8/06

Charged with lead and supervisory roles for performing underwater inspection, engineering design services and construction support for transportation and marine and waterfront projects including seismic design of a new hydraulic lift span and pier extension for the Washington State Ferry Service.

Oregon State University Department of Civil & Construction Engineering 9/01 – 11/04

Conducted research on the dynamic Soil-Structure-Interaction of a shipping terminal wharf at the Port of Oakland including development of a practice-based approach for 3D, nonlinear seismic analysis and calibration. Worked as a teaching assistant for Steel Design, Seismic Design and Indeterminate Analysis of Steel Structures. Interned for the 2004 phase of the Himalayan-Tibetan Continental Lithosphere Mountain Building (HiCLIMB) research project for retrieval and deployment of broadband seismology instruments at altitudes of up to 20,000 feet in Nepal and Tibet. Recipient of National Science Foundation research fellowship to attend the East Asia Summer Institute 2003 program, Kyoto, Japan and Winter 2004 internship program at the Port and Airport Research Institute, Yokosaka, Japan.

Blaylock Engineering Group 6/02 – 9/02

Participated in under and above water structural inspections, hydrographic surveys and report writing for the Port of Los Angeles and Washington State Bridge inspection programs. Position held between first and second year of graduate work.

Childs Engineering Corporation 1/00 – 8/01

Conducted under and above water structural inspections, rehabilitative design, cost estimating, dive team supervision and construction inspection for marine and waterfront projects in Boston Harbor, the Canadian Maritime Islands and for various national and international US Naval Bases.

AmeriCorps 9/99 – 12/99

Design engineer supervising rails-to-trails projects and brownfield site cleanup along the Woonasquatucket River Greenway. Also worked on economic, social and environmental justice issues in the Olneyville neighborhood. Created and supervised the Woonasquatucket River Rangers after school environmental education program.

Geosyntec Consultants Incorporated 9/96 – 8/99

Inspected and performed conformance testing and report writing for construction operations including earthworks, geosynthetics, reinforced concrete, slurry wall, soil anchor and soldier pile wall installation.

University of Illinois at Chicago Department of Civil and Materials Engineering 1/91 – 8/96

Conducted undergraduate research to evaluate performance of soil washing and electrokinetic remediation for cohesive soil. Worked as a teaching assistant and curriculum advisor for classes covering the principles of hand drafting and CAD. Field engineer for fiber optic routing projects in the Chicago Freight Tunnel System. Interned for the Indian Health Service to survey and model an existing seventy-five-mile water distribution system and to perform construction management tasks.

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EXECUTIVE STRATEGY AND LEADERSHIP EXPERIENCE

Seattle Department of Transportation - Roadway Structures Division Director

- Department lead for reporting to and engagement with the City of Seattle Mayor's Office and Seattle City Council regarding all aspects of structural asset risk and management.
- Asset Owner and Subject Matter Expert for closure of the West Seattle High-Rise Bridge and the ensuing West Seattle Bridge Safety Program for repair of the high-rise and adjacent low swing bridge as well as other structural assets in that corridor. Repair methodologies include post-tension and carbon fiber reinforced polymer structural upgrades as well as full electromechanical and hydraulic upgrades for the low swing bridge.
- Race & Social Justice Initiatives including asset maintenance equity mapping, equity-based pay scale analysis for non-represented staff, Racial Equity Tool Kits for various maintenance programs, division wide meetings for brainstorming and innovation around further equity work, coordination between stakeholder groups focused on workforce equity through support of anti-recidivism legislation and funding.
- Asset Owner and Subject Matter Expert for four structural asset types (Bridge, Areaways, Retaining Walls, Stairways), several capital programs including Bridge Seismic Retrofit, Bridge Rehab and Replacement, Bridge Spot Repair and Stairway Replacement in the current Levy to Move Seattle and other non-levy capital programs including Bridge Painting, Bridge Load Rating, Areaways, Retaining Walls and Stairways and three O&M programs including structural inspection, structural maintenance and movable bridge operations.
- Asset Owner and Subject Matter Expert for restriction of curb lane loading and reconfiguration of traffic routing and curb space use in Pioneer Square.
- Stewardship and optimization of operations, maintenance and capital budgets currently totaling ~\$153M over annual and six-year capital spending plans.
- Subject Matter Expert and Lead Engineer for several movable bridge outages for Ballard, Fremont, University and Spokane Street Swing Bridges from 2018 to present.
- Bridge Prioritization Update for all division movable bridge, engineering inspection and maintenance activities with completion required by 2023 per the Seattle City Council that includes refinement of staff and equipment resource leveling procedures, forecasting of routine and major maintenance needs and use of element level condition data for risk assessment and life cycle cost analysis for scheduling of long-term capital replacement needs.
- Incident Commander, Operations Chief and Roadway Structure Section Chief for the SDOT Incident Management Team.
- Division lead for labor relations across seven skilled trade craft types.
- Division lead for response to all public disclosure requests, claims, litigation, customer service request, design reviews and permit requests.

Collins Engineers, Inc. - Executive Regional Manager

- Responsible for overall office operational and project budgets, staff recruitment and management, project delivery and QA/QC for offices in Washington, Utah and California.
- Lead for a business development and marketing territory covering Alaska, Arizona, California, Hawaii, Nevada, Oregon, Utah and Washington with market sectors including bridge, marine/waterfront, and oil/industrial processing facilities.
- Acquired project revenues averaging \$5.0 million annually over a four-year period.
- Direct report for all aspects of regional objectives and results to national executive senior leadership.

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PROJECT EXPERIENCE

Seattle Department of Transportation Project Management

Spokane Street Swing Bridge Silt Removal – Project Manager

Project involves removal of silt deposited by the Duwamish River in the interstitial cavity between the construction cofferdam seal and the Pier 6 foundation, design of new collars to prevent sediment infill in the annular space between the foundation piles and the cofferdam seal isolation sleeves, and development of a sensitivity calculation to determine pier seismic stability once annular space infill levels are known. Project planning tasks have included successful negotiation with permitting agencies to show that removal and treatment of river sediments was not required due to tested contaminant levels below state thresholds for treatment. Further project phases will include design of replacement pile collars, development of a project manual for construction Ad and procurement of commercial dive service for execution of the project.

Bridge System Enhancements – Project Manager

Project involves a feasibility study to determine the implementation method for a Pilot Program to remotely operate one of the five movable bridges that SDOT operates. One bridge will be retrofitted with remote operation equipment to be operated from another nearby bridge for one year to gain US Coast Guard approval for system wide implementation.

N 41st Street Pedestrian Bridge Seismic Retrofit – Project Manager

Project involves concept development and full retrofit design and construction for the concrete pedestrian bridge at North 41st Street over SR-99.

2018 Safe Routes to Schools – Project Manager

Project involves sidewalk, crossing, bike lane and greenway improvements for several sites throughout Seattle.

Transportation Infrastructure Static and Seismic Analysis and Design

Port of Bremerton, Port Orchard Marina Upgrades – Project Principal

Project involved reviewing a 2014 underwater inspection by another consultant and performing an above water condition survey of two floating dock sections for concrete deck repairs and upgrades to mechanical and electrical appurtenances. A pile repair was also required for one timber pile supporting an onshore gangway platform. Responsible for performing QA/QC of inspections, life cycle cost analysis and condition survey reporting and presentation of findings to the port commission.

Columbia Pacific Bio-Refinery, Mooring and Berthing Analysis, Columbia City, OR – Project Principal

Project included a Mooring and Berthing Analysis Study. The study included wind and water loads analysis for Medium Range (MR) class tanker vessels planned to be berthed at the dock. The study included a bathymetric survey and hydraulic analysis to determine wave forces, stream forces, and passing vessel forces. Work included a berthing and mooring analysis and load rating. Responsible for quality assurance of the inspection and report.

Port of South Whidbey, Island Outside Mooring Project, Langley, WA – Project Principal/Team Leader/Engineer-Diver

Provided professional engineering services for the outside mooring project at the Port of South Whidbey's Harbor at Langley, Washington. Major items of work included the design of mooring cleats and retrofitting plan to secure a 150 ft. vessel, similar in size and displacement to the Clipper IV operated by Clipper

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Vacations, to the existing 266 ft. floating breakwater recently installed at the harbor. Surveyed the condition of the existing timber-pile breakwater, as well as the anchor lines and connection points, with particular attention on the hammer links, for floating breakwaters and the minimum depth of the anchor lines below the surface. Responsible for overall project QA/QC and phase two of construction QA underwater inspection.

BP Brooklyn Bulkhead Alternatives Study, Brooklyn, NY – Project Principal

Performed an alternatives investigation of a failed bulkhead at BP's Brooklyn, New York, facility. Work included the review of existing geotechnical, utilities, and drawing information, development of three rehabilitation alternatives, and the preparation of a summary report identifying a preferred alternative with estimated construction costs, developed to a 30 percent contract documents level. Responsible for QA/QC of the overall design and report and client interface.

BHP Billiton Guinea Bauxite Transfer Station Feasibility Study, Seattle, WA – Design Engineer

Performed dredging feasibility study and cost estimate for construction of a new bauxite ore transfer facility in Guinea, West Africa.

Washington State Ferries, Conceptual Design and Layout of Mooring Structures, Seattle, WA – Design Engineer

Performed design tasks for the Port Townsend Preservation Project.

City of Eureka Fisherman's Terminal Project, Eureka, CA – Design Engineer

Responsible for the design of concrete pier repairs and review of construction support documents.

Washington State Ferries, Design of Components for a New Hydraulic Actuated Lift Span, Seattle, WA – Design Engineer

Performed code compliance calculations for structural steel bridge seat, as well as nonlinear earthquake modeling for integration of new hydraulic transfer span with a new concrete trestle for the Eagle Harbor and Bainbridge Island projects.

Washington State Ferries, Design of Mooring Structures and Upgrades to Existing Facilities, Seattle, WA – Design Engineer

Performed push over analysis and detailed design calculations for mooring structures including wing walls and lateral dolphins for the Bainbridge Island and Eagle Harbor projects. Assessed impacts of ferry traffic to local traffic patterns.

Port of Tacoma, Blair Waterway Widening Project, Tacoma, WA – Design Engineer

Performed cost and quantity estimates for demolition of an existing wood chip transfer facility and completed cut/fill quantity calculations.

Rehabilitation of the Bob Barth Ascent Tower (BBAT) Dive Training Facility at the U.S. Navy Dive and Salvage Training Center, Panama City, FL – Design Engineer

Performed a roofing system analysis for upgrade of the facility air conditioning unit; performed calculations and selected materials for rehabilitation of the dive tank chlorination system; performed design analysis of the tank plate steel porthole frames; selected demolition techniques and materials for replacement of tank insulation; selected materials for replacement of facility in-water communication systems; and prepared Specs Intact specifications for all project components.

Upgrade and Repair of Mooring Hardware at the Tosco Marine Oil Terminal, Boston, MA – Design Engineer

Performed damage inspection and design calculations for repair and upgrade of mooring hardware including a standard bollard and quick-release hook, as well as hose rack framing.

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Mooring Hardware Installation at Charleston Navy Shipyard National Park, Boston, MA – Design Engineer

Performed load analysis and design of a new mooring system for the USNV USS Constitution.

Bathymetric Survey of Woonasquatucket River Flood Gates, Providence, RI – Design Engineer

Performed boat and survey operations and data analysis for outflow scour evaluation.

Construction Engineering, Management and Inspection

ENI Oil Niqiatluk Island Gravel Haul, North Slope, AK – Project Engineer

Performed daily logistics, camp supervision, submittal compilation, QA/QC inspection and reporting, payroll generation and blast design and monitoring for hauling and placement of 2 million cubic yards of gravel.

Marsh Creek Teshekpuk Lake Remote Ice Road Operations, North Slope, AK – Project Engineer

Performed logistics and personnel management for winter exploration ice road program.

Arctic Wolf Camp Rehabilitation, North Slope, AK – Project Engineer

Performed condition survey, restock and water and sanitation permitting for a 90 bed remote operations mobile camp facility.

BP Alaska Pipeline Replacement Ice Road Operations, North Slope, AK – Project Engineer

Performed daily logistics, camp supervision, submittal compilation, QA/QC inspection and reporting and payroll generation for build out of approximately 200 miles of ice road.

ConocoPhillips CD2 Gravel Haul, North Slope, AK – Project Engineer

Performed daily logistics, camp supervision, submittal compilation, QA/QC inspection and reporting, payroll generation and blast design and monitoring for hauling and placement of 650 thousand cubic yards of gravel.

Nanuq/AFC Office Design and Construction, North Slope, AK – Project Engineer

Performed structural and architectural design of and permit submittals for new arctic grade office, heavy equipment maintenance and cold storage facilities.

ConocoPhillips Alpine Oil Field Winter Ice Road Construction, North Slope, AK – Project Engineer

Performed daily logistics, camp supervision, submittal compilation, QA/QC inspection and reporting and payroll generation for build out of a 2-mile ice bridge over the Colville River and approximately 20 miles of ice road.

Pioneer Oil Ooguruk Island Drilling Facility Buildout, North Slope, AK – Project Engineer

Performed daily logistics, submittal compilation, QA/QC reporting and payroll generation for construction of offshore production drilling facilities and onshore logistics and air support facilities.

Pioneer Oil Ooguruk Island Well Conductor Installation, North Slope, AK – Project Engineer

Performed monitoring, load calculations, and reporting for installation of 5000 LF of steel pile wall conductors.

Boeing Rail Barge Transfer Facility, Everett, WA – Field Engineer

Performed general construction quality assurance duties including materials testing and traffic pattern modifications for installation of a rail barge transfer facility located on the Everett, WA waterfront.

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Construction of Closure Facilities at the Del Amo Superfund Site, Torrance, CA – Field Engineer

Performed general construction quality assurance duties including soil testing via proctor and nuclear density gauge tests, material and submittal review, and review of contractor survey data.

Construction of the Phase VIA and VIB Groundwater Protection Facilities at the Frank R. Bowerman Landfill, Irvine, CA – Field Engineering Manager

Oversaw construction quality assurance duties for an eight-person crew including soil testing for clay and construction fill, installation of geosynthetic liners, placement of gas extraction and leachate collection systems, and review of contractor survey data.

Construction of Closure Facilities at the McColl Superfund Site, Fullerton, CA – Field Engineer

Performed construction quality assurance duties for installation of a 4,000-foot bentonite slurry wall and 400-foot soldier pile earth retaining wall.

Installation of Fiber Optic Utilities Within in the Chicago Freight Tunnel System, Chicago, IL and throughout the State of Ohio – Field Engineer

Performed street level to tunnel boring, route and condition surveys, point of placement foundation penetrations and interoffice telephony build out.

Geotechnical and Environmental Engineering

Construction of Closure Facilities at the Oil Superfund Site, Monterey Park, CA – Design Engineer

Assisted in the design of closure elements including a retention pond riser system and geogrid reinforced earth retaining wall; performed test pit surveys of existing landfill cover and developed corresponding topographic maps.

Gas Collection System at the Dole/Honolulu Home Depot Store, Honolulu, HI – Design Engineer

Performed calculations for sizing, distribution, and pumping requirements of gas extraction and alarm system.

Gas Collection System at the Tucson Home Depot Store, Tucson, AZ – Design Engineer

Performed calculations for sizing, distribution, and pumping requirements of gas extraction and alarm system.

Woonasquatucket River Greenway Project – Design Engineer

Performed conceptual level planning and detailed design of railroad grade conversion to a paved urban bike path. Civil design initiative was then used to apply federal funding to perform brownfield site cleanup of industrial sites along the former railroad right-of-way. Project was also used to address socioeconomic and environmental justice issues via community outreach and an after school environmental education program.

Water Resource Engineering

Navajo Nation Water Distribution System Expansion, Gallup, NM – Field/Design Engineer

Responsible for as-built survey of over 50 miles of an existing water distribution system and modeling of an additional 50 miles of planned expansion including installation of supply wells, storage tanks and maintenance facilities. Recommended design modifications to allow incorporation of the planned new system.

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Marine/Waterfront Above and Below Water Inspection

City of Tacoma, Foss Waterway Waterfront Inspection, Tacoma, WA - Project Manager/ Team Leader/ Dive Supervisor

Project included above water and underwater condition assessment of six waterfront facilities, composed of concrete seawalls, and concrete and timber pile supported structures. The engineering assessment included future project cost estimates for the removal of the Municipal Wharf facility. Responsible for client interface, QA/QC of project controls, field investigation and condition survey reporting.

Port of San Diego, Phase 2 Cruise Ship Terminal Inspections, San Diego, CA – Project Principal

Performed above water and underwater inspections of the Port of San Diego's B Street Pier, Broadway Pier, and Navy Pier. Inspections included over 4,500 structural piles, 650 fender piles, and over 780,000 sq ft of pier deck. Responsible for client interface, QA/QC of project controls, field investigation and condition survey reporting.

Port of San Diego, 10th Avenue Marine Terminal Inspection, San Diego, CA – Project Principal

Provided asset management and underwater condition assessment services for two bulkheads, a floating dock, and a fixed concrete pier located at the 10th Avenue Marine Terminal. Responsible for client interface, QA/QC of project controls, field investigation and condition survey reporting.

Santa Clara Valley Water District, Floodgate Underwater Inspection, Palo Alto, CA – Project Principal

Performed the underwater structural inspection of the Palo Alto floodgate structure. The inspection included penetration dives into the floodgate box structure, the concrete structure, steel appurtenances, gates, sheet pile bulkhead wall, and wood fendering system. A hydrographic survey was also performed. Responsible for performing underwater inspection. Responsible for client interface, QA/QC of project controls, field investigation and condition survey reporting.

National Park Service, Hyde Street Pier, San Francisco, CA – Project Principal

Provided above-water and underwater inspection planning services for the San Francisco Maritime National Historic Parks Hyde Street Pier. The project included planning of an underwater inspection of approximately 500 timber, concrete, steel piles, pier structural framing, and all utilities and pier appurtenances. Responsible for client interface, QA/QC of project controls, field investigation and condition survey reporting.

Stanley Consultants, Rock Island River Bulkhead Inspection, Rock Island, IL – Project Principal

Project included the above and underwater inspection and BlueView acoustic imaging of the Modern Woodmen of Americas river bulkhead wall, located on the Mississippi River. Approximately 1,000 lf. of steel bulkhead retaining wall was inspected. Responsible for the quality assurance of the inspection and report.

Mark Thomas & Company, City of San Jose, RWF Underwater Inspection, San Jose, CA – Project Principal

Project included the underwater inspection of three facilities, consisting of 2 pipe crossings and an access bridge with weir. The underwater inspection included penetration dives of the pipe crossings, tidal influences, and coordination with the facilities in use. Responsible for the quality assurance of the inspection and report.

Rodney P. Kinney Associates (RPKA), Hydaburg Dock Inspection, Hydaburg, AK – Project Principal

Performed an underwater inspection of a dock in Hydaburg, Alaska. The dock is comprised of varying sections for timber decking and caps with timber piles as well as concrete decking, steel/concrete caps

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and concrete piles. A Level I and Level II underwater inspection was performed utilizing surface-supplied air equipment. Water depths at high tide are up to 50 fsw. A hydrographic survey was also performed. Responsible for quality assurance of the inspection and report.

Port of St. Helens, PGE Dock Inspection, Columbia City, OR – Project Principal / Engineer Diver

Performed the above and below water inspection of piles, bracing and underdeck from Bents 48 to the west end of the structure and approximately the first 110 lf of the adjacent railroad trestle at the Port of St. Helens PGE Dock. Responsible for inspections and quality assurance of reports.

Seattle DOT, Seawall Replacement Inspection, Seattle, WA – Project Manager / Team Leader / Engineer-Diver

Provided underwater inspection of newly installed 24" octagonal prestressed concrete piles as part of the Alaskan Way Seawall Replacement project. The dynamic schedule required response to a request for underwater inspection on a standby basis with only a few hours' notice to begin inspections. Responsible for organizing the team and coordinating the inspection as well as reviewing the final report.

BP America, Inspection of Marine Terminals, NJ, NY, WA – Project Principal/Engineer-Diver

Project included oversight and dive team participation for performance of Level I and II underwater inspections and draft of the condition survey report for steel, concrete and timber piers and wharves at three BP operated marine terminals.

BP America, Berth 121 MOTEMS Underwater Inspection, Port of Long Beach, CA – Project Manager/Engineer-Diver

Project included Level I and II underwater and above water inspections and drafted the condition survey report for a steel marine oil terminal in accordance with California State Land Commission MOTEMS requirements.

Petro Diamond, Berth 82-83 MOTEMS Underwater Inspection, Port of Long Beach, CA – Project Manager/ Engineer-Diver

Project included Level I and II underwater inspections and drafted the condition survey report for a concrete marine oil terminal in accordance with California State Land Commission MOTEMS requirements.

Nustar, Selby Terminal MOTEMS Underwater Inspection, Benicia, CA – Project Manager/ Engineer-Diver

Project included Level I and II underwater inspections for a steel marine oil terminal in accordance with California State Land Commission MOTEMS requirements. Site conditions included depths up to 80 feet, zero visibility and dive ops up to 4 knots of current.

Naval Facilities Engineering Service Center, Inspection of U.S. Naval Station Annapolis, Annapolis, MD - Dive Team Member

Project included Level I and II underwater inspections for steel, concrete and timber piers and wharves.

Naval Facilities Engineering Service Center, Inspection of U.S. Naval Station Bayview, Bayview, ID - Dive Team Member

Project included Level I and II underwater inspections for steel, concrete and timber piers and wharves as well as primary responsibility for condition survey reports.

Shell Mormon Island MOTEMS Underwater Inspection, Port of Los Angeles, CA – Project Manager/Engineer-Diver

Project included Level I and II underwater inspections for a timber marine oil terminal in accordance with California State Land Commission MOTEMS requirements.

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Inspection of US Naval Station Yokosuka, Yokosuka, Japan – Dive Team Member

Performed Level I and II underwater inspections for steel, concrete and timber piers, wharves, floating docks and seawalls, as well as generating relevant condition surveys and repair cost estimates consistent with recent NAVFAC reporting standards.

Construction of the BNSF Rail Barge Transfer Facility, Everett, WA – Field Engineer/Dive Team Member

Performed QA/QC compliance checks for pile installation, precast deck placement and CIP deck pours, submittal review, and Level I dive inspection of new precast concrete octagonal piles.

Inspection of the Washington State Ferries Eagle Harbor Shipyard Facility, Bainbridge Island, WA – Dive Team Member

Performed Level I and II inspection of existing timber, concrete and steel piles and associated deck systems and prepared the condition survey report and engineering cost estimate.

Inspection of Newly Driven Piles at Port of Seattle Terminal 18, Seattle , WA – Dive Team Member

Performed Level I inspection of installed piles and assisted with drafting of condition survey report.

Inspection of the Makah Tribal Pier, Neah Bay, WA – Dive Team Member

Performed Level I and II inspection of existing timber piles and timber deck system and prepared condition survey report and engineering cost estimate.

Inspection of Terminal 2 for the Port of Grays Harbor, Grays Harbor , WA – Dive Team Member

Performed Level I and II inspection of existing concrete piles and deck structure, as well as existing timber pile supported walkway.

United State Navy, Inspection of Upgrades to Pier 2-Concord Naval Station, Concord, CA – Design Engineer

Performed Level I inspection of constructed repairs using Surface Supplied Air.

Inspection of Concrete Facilities at the Port of Los Angeles (POLA), CA – Dive Team Member

Performed Level I, II, and III underwater inspection of support piles, underdeck, and seawalls, and generated inspection reports using POLA designed software.

Washington State DOT, Inspection of 22 Bridges Along and Adjacent to the Columbia River, WA – Dive Team Member

Performed level I, II, and III underwater inspection of steel and concrete bridge support piles and piers and hydrographic surveys of adjacent river bathymetry for scour analysis.

Inspection of Waterfront Facilities at U.S. Naval Station Norfolk, VA – Project Manager/Diver

Managed four-person dive team for level I, II, and III underwater and topside inspection of 10,000 linear feet of bulkhead and 15 concrete pier structures consisting of approximately 20,000 piles.

Inspection of the Fuel Pier and Approach Trestle at U.S. Naval Station Rota, Spain – Dive Team Member

Assisted in the level I, II, and III underwater and topside inspection of concrete jacketed and exposed steel H-piles.

Inspection of Floating Dry Docks at U.S. Coast Guard Station Curtis Bay, Baltimore, MD – Dive Team Member

Performed level I, II, and III underwater, topside, and interior inspection of all timber and steel dry dock components.

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Inspection of Chelsea Creek Shipyard Demolition, Boston, MA – Dive Team Member

Worked closely with the site contractor to achieve complete removal of five timber pier structures in near zero visibility conditions.

Inspection of the Boothbay Harbor Shipyard Marine Railway System, Boothbay, ME – Dive Team Member

Performed underwater and topside inspection, as well as rail grade survey.

Inspection of Marine Railway System at the East Isle Shipyard, Prince Edward Island, Canada – Dive Team Member

Performed underwater and topside inspection, as well as rail grade survey; also performed structural stability calculations.

Inspection of Marine Railway System at the Shelburne Shipyard, Nova Scotia, Canada – Dive Team Member

Performed underwater and topside inspection, as well as rail grade survey.

Inspection of the Charleston Shipyard National Park, Boston, MA – Dive Team Member

Performed level I and II underwater and topside inspection of Pier 1 and the adjacent dry dock and dry dock gate; performed design calculations for new winching/mooring system for the USS Constitution.

Inspection of the World Trade Center Apron Pier, Boston, MA – Dive Team Member

Performed level I, II, and III underwater and underdeck inspection of composite concrete/steel pipe piles and riveted girder and concrete deck framing; performed calculations and wrote specifications for repair of riveted girder and concrete deck framing.

Bridge Above and Below Water Inspection

Caltrans, Underwater Bridge Inspection – Project Principal/Engineer-Diver

Performed the underwater inspection of 14 bridges, including the San Francisco Bay and the Dunbarton Bridges. Dives were conducted in water depths up to 60 feet, low-visibility, and high-current conditions. A Level I and Level II underwater inspection was performed utilizing surface-supplied air diving equipment. Responsible for performing underwater bridge inspections and overall project QA/QC and client interface.

Jacobs West Sammamish River Bridge Inspection, Kenmore, WA– Project Principal

Project included a Level I and Level II routine underwater inspection of the substructure piers utilizing scuba equipment. Responsible for quality assurance of the inspection and report.

BNSF Railway & HNTB, Underwater Bridge Inspection, White Salmon, WA & Castle Rock, WA – Project Principal

Provide underwater inspection services for two heavy rail bridges over Little White Salmon River near White Salmon, WA, and Bridge 81.4 over the Cowlitz River near Castle Rock, WA. Existing bridge conditions were evaluated for suitability for a new bridge superstructure retrofit repair. Responsible for overall project QA/QC.

Utah DOT Underwater Bridge Inspections, Statewide, UT – Project Principal/Engineer Diver/QA Engineer

Performed a full, element level, routine inspection, as well as the underwater inspection for 60 bridges. Generated bridge specific inspection procedures for each bridge prior to performing the underwater bridge inspection. The inspections were performed according to the AASHTO Manual for Bridge Element Inspection, utilizing National Bridge Elements and Bridge Management Elements as applicable. Responsible for diving inspections and quality assurance of inspections and reports.

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Nevada DOT, Underwater Special Bridge Inspections, Statewide, NV – Project Principal/Engineer Diver/QA Engineer

Project included special underwater diving inspections of seven pre-identified bridges. Channel cross-section measurements were taken along the upstream bridge fascia. A Level I and Level II inspection was performed utilizing scuba and surface-supplied air diving techniques. Responsible for overall project supervision and field schedule coordination as well as quality assurance of inspections and reports.

USDA Forest Service District 6, Underwater Inspection of 3 Remote Bridges, OR and WA – Project Manager/Engineer-Diver

Project included Level I and II underwater inspections for steel, concrete and timber bridge components of three remote bridges.

USACE Seattle District, Underwater Inspection of 2 Bridges, Seattle, WA, Libby, MT – Project Manager/Engineer-Diver

Project included Level I and II underwater inspections for concrete bridges adjacent to the Mud Mountain Dam outside of Seattle, WA and the Libby Dam near Libby, MT.

City of Tacoma, Underwater Inspection of the Murray Morgan Bridge, Tacoma, WA – Project Manager/Engineer-Diver

Project included Level I and II underwater inspections for the concrete support piers on the Murray Morgan lift bridge for the City of Tacoma.

City of Aberdeen, Inspection of Aberdeen North Bridge No. 2, Aberdeen, WA - Dive Team Member

Project included Level I and II underwater inspection for submerged substructure on a short-fuse basis.

Bureau of Indian Affairs Underwater Inspection of 9 Remote Bridges, WA, ID, MT, CA, NM – Project Manager/Dive Supervisor

Project included Level I and II underwater inspections for steel, concrete and timber bridge components at 9 remote bridge locations.

Seattle DOT, 2012 Underwater Inspection of 3 Bridges, Seattle, WA – Project Manager/Engineer-Diver

Project included Level I and II underwater inspections for steel, concrete and timber bridge components.

USDA Forest Service, Underwater Inspection of Benham Falls Trail Bridge, Bend, OR – Engineer-Diver

Project included Level I and II underwater inspections for a timber pile supported pedestrian bridge.

Adult Education

University Beyond Bars – Arts & Sciences Lecturer

Presentations at the Monroe State Penitentiary to provide context on use of basic math and science classes for pursuit of professional technical degrees in science and engineering.

National Highway Institute – Underwater Bridge Inspection and Design of Countermeasures, In-Service Bridge Inspection and Bridge Inspection Refresher Instructor

As part of a task order contract, taught National Bridge Inspection Standard required coursework for underwater inspection of in-service bridges and design of underwater countermeasures. Classes were typically 30 students in size and comprised of bridge engineers and commercial divers.

Matthew James Donahue, PE

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Oregon State University – Earthquake Engineering Research Institute (EERI) Secretary

While serving as student chapter secretary, created a community outreach program and lecture series regarding the fundamentals of earthquake engineering that was presented to local school science classes and community groups.

Tacoma Mountaineers – Mountain Oriented First Aid (MOFA) Instructor

Provided mountain first aid instruction as part of the requirement for the Tacoma Mountaineers basic climbing class. Instructor responsibilities included lecture composition and delivery consistent with the current version of the MOFA manual, supervision of mock rescue scenarios and proctoring of final written exams and practicals for up to 40 students per class.

Oregon State University – Structural Engineering Teaching Assistant (TA)

Provided support for teaching undergraduate level structural engineering courses by lecturing, proctoring exams, grading homework and holding office hours.

AmeriCorps – Woonasquatucket River Greenway Project Outreach Coordinator

Coordinated and delivered public meetings for creation of community understanding and support regarding conservation and environmental cleanup efforts along the Woonasquatucket River in Providence Rhode Island.

University of Illinois at Chicago – Hand Drafting and CAD TA

Employed by the Department of Mechanical Engineering to teach basic hand drafting classes and to create original curricula for newly required computer aided drafting classes.

CERTIFICATIONS

ADCI Surface Supplied Air (SSA) Diver (#45750)

TRAINING

FHWA-NHI Course 130053A – Bridge Inspection Refresher Training, 2017

FHWA-NHI Course 130091 – Underwater Bridge Inspection, 2014

FHWA-NHI Course 420018 – Instructor Development Course, 2013

FHWA-NHI Course 130055 – Safety Inspection of In-Service Bridges (80 hrs), 2005

First Aid, CPR, Emergency Oxygen

PROFESSIONAL AFFILIATIONS

American Society of Civil Engineers (ASCE), Member

Earthquake Engineering Research Institute (EERI), Member

PUBLICATIONS AND PRESENTATIONS

Donahue, M., O'Connor, D., "Lessons Learned and Case Histories for Post Disaster Inspection of Coastal Facilities," *ASCE Ports 2016 Conference Proceedings and Presentation, New Orleans, Louisiana, United States*, June 2016

Donahue, M., "Post Coastal Disaster Facility Condition Assessment," *The Fourth International Conference on Geotechnical Engineering for Disaster Mitigation and Rehabilitation (4th GEDMAR) Conference Proceedings and Presentation, Kyoto, Japan*, September 2014

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Donahue, M., Dickenson, S., Miller, T., Yim, S., "Implications of the Performance of a Pile Supported Wharf for Numerical Modeling", *SPECTRA the Journal of the Earthquake Engineering Research Institute*, August 2005.

Ichii, K., Donahue, M., "Evaluation of Sea Dike Settlement Due to Seismic Shaking Prior to Tsunami Attack", *ASCE/COPRI Solutions to Coastal Disasters 2005 Conference Proceedings*, Charleston, South Carolina, United States, May 2005.

Iai, S., Tobita, T., Donahue, M., Nakamichi, M., Keneko, H., "Soil-Pile Interaction in a Horizontal Plane", *Seismic Performance and Simulation of Pile Foundations in Liquefied and Laterally Spreading Ground (GSP 145) Workshop Proceedings*, University of California Davis, California, United States, March 2005.

Donahue, M., Dickenson, S., Miller, T., Yim, S., "Comparison of 3D Modeling to Recorded Seismic Response for a Pile Supported Wharf", *ASCE Ports 2004 Conference Proceedings*, Houston, Texas, United States, April 2004.

Donahue, M., Dickenson, S., Miller, T., Yim, S., "Use of Instrumentation for Determining Dynamic Response of a Pile Supported Wharf", *2003 Annual Earthquake Engineering Research Institute Conference*, Portland, Oregon, United States, Poster Presentation.

Reddy, K.R., Donahue, M., Saichek, R.E., Sasaoka, R., "Preliminary Assessment of Electrokinetic Remediation of Soil and Sludge Contaminated with Mixed Wastes", *Journal of Air and Waste Management*, July 1999.

PERSONAL INTERESTS

Yoga and Meditation

Guitarist, Vocalist and Storyteller

Surfing

Scuba Diving

Long Distance Self Supported Travel by Foot, Bike and Sea Kayak