
The meeting location will be accessible to the public. Masks are required as per State of Oregon Office of the Governor effective August 13, 2021. Public comments may be made via email up to two hours before the meeting start time at info@cityofdepobay.org or you can also dial in to attend using your telephone (888) 204-5987, access code 9599444.

AGENDA

- I. Call Meeting to Order
- II. Review of Bid Proposals
 - Moffatt and Nichol-Shane Phillips
 - PND Engineers - Rian Johnson]
 - Davido Consulting Group-Daniella Patterson
 - Mott MacDonald- Scott McMahon
- III. Bid Evaluation Sheet Completed
- IV. Formulate Recommendations and Next Steps to the City Council
- V. Adjourn

REQUEST FOR PROPOSALS

Produced for Marine Engineering Services

City of Depoe Bay, OR

January 14, 2022



moffatt & nichol

FINAL ENGINEERING AND CONSTRUCTION DOCUMENTS

FOR DOCKS #2, #3, AND #4 & PILINGS REPLACEMENT



January 14, 2022

Mr. Brady Weidner
City of Depoe Bay
570 SE Shell Ave
Depoe Bay, OR 97341

**Subject: Final Engineering and Construction Documents for
Docks #2, #3, and #4 & Pilings Replacement**

Dear Mr. Weidner:

Moffatt & Nichol is pleased to submit the attached proposal for assisting the City with replacement of their moorage dock facilities at the City boat harbor. Moffatt & Nichol is a family-owned waterfront specialized professional services providing a wide range of planning, design, economic, and environmental services over the past seven decades for waterfront ports and harbors facilities. Our Seattle and Vancouver WA offices will lead this work and be supported by the resources of more than 800 specialists across the firm to provide you with the expertise to complete planning and feasibility studies, environmental sciences and regulatory compliance, cost estimating, and engineering design.

Key attributes of the Moffatt & Nichol Team that would benefit the City of Depoe Bay on this project include:

- **Experience with similar Boating Facility Improvement Projects:** Our firm and staff are specialized in waterfront ports and harbors planning, permitting and design. That focused expertise brings a broad range of experience and efficiencies to your project. We have prior working experience with a wide range of funding programs as well as design standards including those outlined by the Oregon Marine Board.
- **Key Team Member Prior Experience at Depoe Bay:** Our Project Manager (Shane Phillips) and lead float designer (Kelly LaFave) worked together on the phase 1 master planning efforts for the City. Prior working knowledge of the facility helps economize our approach and increase value to the City for delivering a final design for implementation. Additionally, our environmental staff helped the US Army Corps with an environmental assessment for the dredging work in 2015.
- **Specialized Dock Designer:** Our lead dock structural engineer has over 20 years of specialized dock engineering experience on all structure material types. His experience on over 300 projects allows our team to bring innovative, practical and economic designs for the marina improvement project.
- **Coastal Oregon Experience:** Our team of coastal, structural and civil engineers have working knowledge of coastal Oregon through prior experience at Coos Bay, Depoe Bay, Garibaldi, Astoria and other harbors that brings localized knowledge to the City project.

We thank you for the opportunity to submit our proposal, and we look forward to providing engineering services to the City of Depoe Bay. If you have any questions or require additional information, please contact me (425) 417-016 or sphillips@moffattnichol.com.

Sincerely,

MOFFATT & NICHOL



Shane Phillips, PE
Washington Business Unit Leader

Scope of Work

1. Kick Off Meeting

The work will begin with a kick-off meeting with City Staff and the Harbor Restoration Steering Committee members. Shane will bring his knowledge and experience from the previous concept study (completed prior to joining MN) to summarize the local metocean conditions (tides, waves, currents, tsunami) that will influence the marina planning and design, describe constraints such as site topography, subsurface conditions, and discuss concerns from the perspective of design, construction, and maintenance. During this initial task we will refine our work plan and schedule based on the results of our kickoff meeting and develop a communication plan to help ensure we stay on schedule through effective collaboration with the City staff.

2. Float Design Recommendation Narrative / Meeting with City

This task is to review the Conceptual Design presented in the 2015 study in order confirm the goals for the marina improvements. Work tasks include evaluating and developing recommendations for design refinements to the conceptual plan.

- Basis of Design. In coordination with the City, develop an updated basis of design documenting standards, criteria, budget constraints, code requirements (i.e. fire code, other), grant funding requirements, operational requirements and other factors discussed during the project kickoff meeting relevant to the design efforts.
- Dock Lengths and Widths: The ability of the City to accommodate as wide a range of vessels is important for both function and economics of the marina. We understand the desire to maximize the moorage capacity of the marina and provide the flexibility to accommodate as wide a range of vessels as reasonable for the fixed basin size. A review of the conceptual design will be based on the available information for the marina. Refinements may include increasing the width of the fingerpiers for stability and strength, particularly the end fingerpiers that are exposed to winds and waves and support larger vessels.
- Guide piling are the foundation for the marina docks. Using available as-built data from earlier marina construction, including the recent Dock #1 reconstruction will inform the guide pile design and constructability.
- Floating docks will need to be designed for the metocean site conditions. Specific requirements and/or details for the floating dock system can be identified to resist extreme loading from long period waves, currents and tsunami loading. Docks must address extreme water levels and future sea level rise for the area.
- Improved ADA access to the marina is an important consideration to marina users. Providing access and facilities that meet compliance with ADA requirements include review of accessible routes, number and location of barrier free floats.
- Replacing gangways with longer structures would need to be evaluated for related improvements due to the added dead and live loads that need to be supported. The existing gangways are supported at the top of the ramp by the marina perimeter seawall. Installing a longer gangway to meet ADA requirements would require reviewing the support details of the gangway at the seawall. Longer ramps will impose higher loads at the top and bottom of the ramp. Possible improvements can include added cantilevered or a pile-supported platform. Increasing the gangway length can also impact the marina slip count as float configurations for

the gangway landing would need to address minimum clearance widths around the gangway.

- Adaptability of the marina docks for future expansion would include strategic placement of guide piling, identifying methods of attaching additional docks and extending utilities. The use of standard and modular components in the new float system can allow future repairs as well as expansion as needed in a more economical, phased approach.
- Resiliency of floating docks relative to tsunami loading is focused on a review of how the extreme loads that are transmitted to the docks. The rapid rise and fall of water level can cause high currents imposed on anchored floating structures. Vulnerability for this loading occurs at the cleats, pile hoop/guide on the float and support pile components. Consideration of the float system design to resist these tsunami loads will be reviewed using current best available information on tsunami velocity criteria for the basin and incorporate current design standards to our float (guide pile hoop and cleats) and pile design and associated details.

A summary of the recommendations would be presented to the City and Harbor Restoration Steering Committee. It is assumed that a CAD file for conceptual design will be provided by the City as a starting point for revisions to the site plan. In order to maintain the desired project schedule, a survey of the marina will be conducted soon after the Task 1 - Kick Off Meeting.

DELIVERABLES:

- Marina Design Recommendations Memo & Updated Site Plan - PDF

3. Updated Design / Public Meeting

The conceptual design will be updated based upon the feedback received from City Staff and the Harbor Restoration Steering Committee on recommendations developed in Task 2. A PowerPoint presentation and site plan will be developed to help provide the graphics needed to conduct a briefing on the status of the project and help inform on the public and Council on details for layout, finishes and materials to solicit input prior to initiating the 60% design.

4. 60% Design

Based on the outcome from Task 3, the M&N team will complete the project design, plans, technical specifications, and estimates of probable construction costs (PS&E) for the replacement of Docks 2, 3 and 4. M&N, along with MSE, will be responsible for developing the PS&E for the project.

Review of the coastal site conditions to inform the basis of design and final engineering design work. Analysis will evaluate design water levels, tsunami loading, and long period wave conditions for the structure design. Recommendations for the guide pile design will be based on available information for the Dock 1 replacement. Data may include pile driving logs, geotechnical reports. Upland civil site improvements may be needed in order to provide ADA access to docks. Work can include pavement markings and signage modifications.

Contracting strategy will be developed as part of the 60% design package to help inform how to assemble the final design and to plan for bidding process and timelines. A design that provides the details needed to provide the type, size and durability needed for the project performance and use but through technical specifications provides some flexibility to the supplier to refine the design to economize and add value to the project may be a good approach for this project.

A focus on the materials, details and finishes will be made to solicit input from stakeholders and the City; those include cleats, finish surfaces, rub strips, and other materials that will relate to use and maintenance. Alternatives will be presented with cost and durability narrative to aid in the selection of preferred finish materials.

A tentative drawing list is provided below:

Sheet No.	Description
G-001	Title Sheet / Vicinity Map
G-002	Sheet List, Abbreviations, Legend, General Notes
G-100	Existing Site Plan
C-100	Site Plan
C-101	Demolition Plan
C-102	Demolition Sections / Details -1
C-103	Demolition Sections/ Details - 2
C-110	Site Civil Improvements (pavement markings, signage)
C-201	Utility Plan & Typical Details
C-202	Utility Details
C-301	Float Plan – Dock 2
C-302	Float Plan – Dock 3
C-303	Float Plan – Dock 4
C-401	Float Details – 1
C-402	Float Details – 2
C-501	Guide Pile Details
C-601	Gangway – Plan and Details
C-602	Gangway Details
E-101	Electrical Site Plan, General Notes
E-102	One Line Diagrams
E-201	Electrical Details - 1
E-202	Electrical Details - 2

Technical specifications (Divisions 02 thru 35) will be prepared for the contract documents. For the 60% submittal, an outline technical specifications along with a partial set of specification sections will be submitted for review.

Cost estimates form the basis of cost control and need to be accurate and consistent for all project elements. Our cost estimators produce reliable bottom-up construction cost estimates using the project plans and specifications - similar to a contractor bidding on the project. Developing the estimate in this way provides an additional opportunity to improve the design documents where questions or ambiguities may exist before the project is advertised. Estimates at specified design levels will be monitored and tracked for conformance to the budget and will follow any applicable special procedures.

ASSUMPTIONS:

1. Pile driving records and/or geotechnical reports for the Dock 1 replacement project will be available. If adequate data is not available to develop recommendations for pile design, options may include a test pile program, or a field exploration program. Costs associated with these options are not included in the submitted fee proposal.
2. Reference drawings will be available for site utilities and include size, capacity and locations of utilities infrastructure for the marina.
3. As-built drawings for Dock 1 and the marina seawall will be available.
4. Condition assessment of the existing seawall is not included in this Scope of Work. It is assumed that the structure is in good condition to support the gangway loads.

5. Fire protection requirements for Docks 2, 3 and 4 will be based on the same basis of design as used for Dock 1 replacement.
6. No parking or traffic studies are required as part of the site improvements.

DELIVERABLES:

- 60% Design Level Plans (half size), technical specifications and opinion of probable construction costs – PDF

5. Maintenance Schedule & Costs

A memo will be prepared to describe a maintenance schedule for the marina docks. The memo will be based on the final type of dock system agreed to by the City and Steering Committee members as part of Task 3. An overview of the expected service life of the major components of the marina will include discussions regarding routine maintenance and other factors that can affect the service life of marina docks. We assume that the goal of the memo is to develop a capital improvement program for the marina based on the installation of a new dock system today. As part of our design development (task 4), we will incorporate anticipated maintenance needs by specifying the float and gangway suppliers provide a certain quantity of spare parts to ensure materials are available for use by City staff.

DELIVERABLES:

- Maintenance Schedule and Costs Memo (Draft and Final)- PDF

6. Project Permits

M&N environmental permitting specialists will work closely with the engineering team to understand the design and construction needs and methods. M&N will develop a project description to submit to the regulatory agencies or for use in verbal discussions with the regulatory agencies to identify the most applicable permit strategy moving forward. The project description will include information on proposed construction activities, materials, methods, appropriate Best Management Practices (BMPs) and minimization measures, and scheduling to support streamlined permitting. Our scope of services is based on the assumed regulatory requirements listed in the table below and generally includes:

- Providing the City with a permit matrix including Agency contact information as well as a summary of any “red-flags” that may have been provided during preliminary discussions.
- Completing required environmental studies.
- Developing federal, state, and local permit applications for the proposed work.
- Developing Joint Permit Application (JPA) drawings depicting site conditions, the repairs and construction methods
- Coordinating with the USACE and other agencies as needed throughout the application review period.

STRUCTURE AND PILINGS REPLACEMENT - REQUIRED PERMITS, APPROVALS, APPLICATION NEEDS, AND SUPPORTING STUDIES

Agency	Reviews/Permit	Application Requirements	Supporting Studies
City of Depoe Bay	Shorelines/Land Use/ Critical Areas Exemption*	Shoreline/Critical Areas Exemption*	None
City of Depoe Bay	Building Permit	Drawings/Specifications	None
US Army Corps of Engineers (USACE)	Section 10 Nationwide No. 3 Maintenance	Joint Permit Application (JPA)	Conceptual (30%) Design information is required
National Oceanic and Atmospheric Administration (NOAA); National Marine Fisheries Services (NMFS)	Endangered Species Act (ESA) and Magnuson Stevens Act (MSA) Consultation	JPA	Biological Assessment (BA) and Essential Fish Habitat Assessment (EFHA)
US Department of Fish and Wildlife (USFW)	ESA and MSA Consultation	JPA	BA and EFHA
OR Department of Environmental Quality (ODEQ)	401 Water Quality Certification	JPA	None

* Additional scope and budget may be needed if the Agency determines the project is not exempt.

ASSUMPTIONS:

1. The project as designed will meet the requirements of USACE Section 10 Nationwide Permit 3 (Maintenance).
2. A Section 404 permit is not required because the project will not discharge fill to the waters of the United States.
3. Compensatory mitigation will not be required by the Agencies. However, given the present complex regulatory climate we assume that formal consultation with National Marine Fisheries will be required (e.g. Biological Assessment documentation).
4. Delineation of the biological ordinary high water mark is not necessary for the project.
5. The project will be categorically exempt from the local shoreline permit under the "maintenance and repair" exemption.
6. Comments from the City on the draft documents will be editorial in nature and minor in extent; one cycle of review and comment will be required.
7. The City will submit the permit documents to the appropriate agencies.
8. Comments by the regulatory agencies on submitted documents will be minor in extent

DELIVERABLES:

- Permit Applications (Draft and Final) - PDF

7. 100% Design

After receipt of comments from the City, M&N team will complete the project design, plans, technical specifications, and estimates of probable construction costs (PS&E) for the City. The submittal will include structural calculations. All final documents will be sealed and signed by an Oregon registered PE.

After the City and stakeholders have reviewed the 100% submittal, a virtual meeting will be scheduled to discuss the documents.

DELIVERABLES:

- 100% Design Level Plans , technical specifications and opinion of probable construction costs – PDF

8. City Review of 100% Design

M&N Team will be available for a virtual meeting with the City Council to discuss the 100% Final Design submittal. We will document questions and comments and provide formal responses as part of finalizing the documents.

9. Request for Bids (RFB)

M&N will prepare a Request for Bids for Construction Services document that can be used to advertise the project for bids.

ASSUMPTIONS:

1. Changes to the 100% Design Submittal that are requested by the City Council meeting in Task 8 above, will be considered a change to this proposal.
2. City shall prepare the

DELIVERABLES:

- Request for Bids (Draft and Final) - PDF

10. Assist City with Bid Reviews

After the bidding period has closed and bids have been opened, we will assist the City with analyzing and tabulating bid proposals, determining the successful bidder,

11. Cost of Services

The cost breakdown for our services is outlined in the table below and an hour by labor classification and subconsultant costs are provided in a detailed estimate that is provided in Attachment 4.

Task No.	Summary	Anticipated Completion Date	Cost
1	Kick-off meeting, in-person meeting	Feb. 1, 2022	\$7,711
2	Recommendations/with narrative, in-person meeting	Feb 24, 2022	\$43,017
3	Provide updated design for concurrence – public meeting (via Zoom)	Mar 17, 2022	\$3,666
4	60% design	May 19, 2022	\$143,543
5	Anticipated maintenance schedule, costs	Apr 21, 2022	\$6,196
6	Prepare permits for submittal	Jul 14, 2022	\$33,262
7	100% design, cost estimate, prepare construction documents, public meetings via Zoom (with City staff, harbor restoration committee, City Council to review)	Jun 27, 2022	\$51,045
8	Prepare RFB for City distribution	Jul 25, 2022	\$1,276
9	Assist with review of bids		\$2,152
TOTAL			\$291,869

12. Direct Expenses

Cost of services (Labor and Direct Expenses) are outlined in Section 11. A detailed cost breakdown of direct expenses is outlined in our cost spreadsheet that is enclosed in Attachment 4. A summary of costs is provided below:

MN Labor Costs:	\$139,126
Subconsultant Costs:	\$151,239
Reimbursables:	\$1,504
TOTAL:	\$291,869

13. Project Schedule

The project schedule is based on a start date of Feb 1, 2022; milestone dates are provided in the table presented in Item 11 – Cost of Services. A detailed schedule that includes data collection, design, permit support and allowances for City reviews and meetings is provided in Attachment 4.

14. Capacity to Perform / Capability of Firm

CAPACITY:

The following table summarizes M&N's number of professional personnel employed in each discipline, companywide and locally in Seattle operations (Seattle, Vancouver, Federal Way):

M&N COMPANYWIDE		M&N SEATTLE, FEDERAL WAY, AND VANCOUVER	
Discipline	Staff	Discipline	Staff
Coastal/Hydraulic Engineer	76	Coastal/Hydraulic Engineer	5
Port Planner/Engineer	13	Port Planner/Engineer	2
Civil Engineer	76	Waterfront Civil Engineer	4
Structural Engineer	183	Structural Engineer	10
Transportation Engineer	47	Dredging Specialist/Engineer	2
Water Resources Engineer	23	Environmental Engineer/Scientist	2
Electrical Engineer	21	NEPA Planners	1
Mechanical Engineer	10	Planner: Urban/Regional (Waterfront)	1
Dredging Specialist/Engineer	5	CAD	1
Environmental Engineer/Scientist	26	Engineering Technicians	2
Foundation/Geotechnical Engineer	5		
Rail Engineer/Specialist	15		
Transportation Economist	8		
NEPA Planners	4		
Planner: Urban/Regional (Waterfront)	6		
Cost Engineer/Estimator	2		
Construction Inspector/Manager	11		
GIS Specialist	6		

TEAM CAPABILITY:

Firm bios are provided for each team member, beginning with the Prime – Moffatt & Nichol, and followed by the subconsultants Marine Structures Engineering, Harbor Power, GRI and Solmar. Our project team has broad based experience working marina float replacement projects as well as work in the Pacific coastal environment as outlined in our key personnel resumes.

- Staff Boating Facility Experience on Oregon and Washington Coasts – Coos Bay, Siuslaw, Garibaldi, Astoria and in WA includes Ilwaco, Tokeland, Westport marinas.
- Specialized Design Requirements. For coastal conditions such as Depoe Bay, those include long period wave (oscillation of the harbor) during winter conditions (cyclic action and durability for joints and hinges), tsunami hazards (design of pile hoop, cleats and support piles), climate (durability for materials such as corrosion protection or use of products that are pretreated to maximize longevity), salt water environment (corrosion protection).

FIRM QUALIFICATIONS



moffatt & nichol

Creative People, Practical Solutions.®

M&N's waterfront expertise extends to the creation of attractive new marina and waterfront facilities that integrate public and private marinas, piers, overwater promenades, cruise and water transportation terminals, harbors, small craft public safety facilities, boat ramps, breakwaters, living shorelines, and mixed-use waterfront communities. Our reputation for excellence in the marine engineering field has been built on years of experience working on complex and challenging projects, both large and small, along the world's waterfronts.

M&N remains tightly focused on a primary mission – providing excellence in service for marine planning and engineering, design, and construction. This singular focus on where the land meets the water continues to cement our industry leading reputation as a dedicated marine engineering firm. The benefits M&N brings to the City include:

Marinas and waterfront structures. We have designed over 400 Maritime facilities, servicing over 100,000 vessels. Our unique expertise enables us to develop innovative solutions to marina basin creation and function, dock layout, pier design, upland support facility design, breakwaters, environmental compatibility and sustainability, water quality, storm protection, dredging and disposal, and utility and fuel systems.

M&N knows coastal and harbor engineering. We understand waves, currents, water levels, sediment transport, water circulation and the complexities of nearshore environments. More importantly, we know how these conditions influence the initial costs and long-term sustainability of waterfront developments. Using this understanding of the marine environment, we can analyze site conditions and develop cost effective facility designs that work with the natural environment.

M&N knows waterfront and marina construction. We pride ourselves on cost effective constructable design. Our engineers understand the issues and difficulties of marine construction. We know the supplier and contractor community and understand what is available in a local or regional market. This unique knowledge is considered throughout the planning and design process. We understand and are experienced with the range of design and construction contracting approaches and can help our clients determine if they are best served by a full design package or a level of performance specification design to better capture value and cost savings from the supplier and contractor market. We can provide experienced support through the bidding, construction, and closeout phases of a project.

M&N understands master planning and concept development. We are creative team players and are neither bound to convention nor married to our ideas. We enjoy the vitality of the planning and design process and feed off the creativity of the team. Our experience allows us to recognize the physical and practical limits of a project while allowing for the broadest range of development possibilities. We can add value to a plan by exploring additional opportunities to bring people and places to the water. We know that any successful waterfront project must represent a cohesive and collaborative upland and waterside vision.

People are our greatest resource. We have created a strong, Seattle-based team of top professionals. They all have extensive experience with successful project records. Most importantly, they have great relationships with their clients and team members, even in high pressure situations. Individuals on the team understand how marina layout and design can enhance the boating experience.

Specialty Team Partners

MN has assembled a cohesive efficient team that offers prior experience and continuity with the City of Depoe Bay Marina, as well as broad expertise in marina planning, permitting, design, and construction. We formed the project team to specifically include subconsultants who have worked together with M&N, and with whom we have successful working relationships. The team's familiarity with the site and project issues, along with its continuity and leadership, allows us to hit the ground running, progress through the project with a high level of efficiency, and ultimately reduce risk and achieve the City's objectives and goals. As mentioned, subconsultant team members include: Marine Structures Engineering (MSE) to support the marina planning and design, Harbor Power Engineers (HPE) to provide electrical engineering, GRI to provide geotechnical engineering, and Solmar Hydro to provide as needed topographic and hydrographic survey and mapping.



MSE specializes in the design of structures for small boat harbors in the marine environment. Principal Engineer and Owner, Kelly LaFave founded MSE in 2006 after 16 years in marine engineering industry and has successfully designed numerous projects involving concrete, timber, HDPE or steel floats, aluminum piers and barrier-free gangways, bulkheads and retaining walls, wave attenuators and wave barriers and pile-supported piers and pile foundations. MSE works closely with marine structures fabricators and manufacturers to develop efficient and practical designs.



HPE is a specialty electrical engineering firm dedicated to the design of electrical power and lighting systems for coastal and waterfront facilities. HPE staff brings decades of experience in the design of marinas, piers, wharfs, floating docks, breakwaters, and other similar installations. In addition to our overwater expertise HPE engineers have designed supporting electrical infrastructure for upland areas including site distribution systems (aerial and underground), building electrical services, and site lighting. Project types include roadways, parks, boat launch, public access areas, lodges, and other recreational facilities.

GRI. GRI has served as the geotechnical engineer of record for more than 400 coastal projects in Oregon. In addition, parks, marinas, recreation facilities, and waterfront projects are a major part of our project base. As a result of this broad experience, we have an in-depth understanding of the local geology, seismic design considerations, and constructible solutions for the planned facility improvements. We are used to working as part of multi-disciplinary teams and our public agency partners. In addition, GRI brings over 20 years of experience working with M&N and these working relationships are key to helping successfully advance complex projects.



Solmar is a Portland, Oregon-based marine engineering and surveying firm that has been providing services for federal and local government agencies, municipalities, and various private entities since 2004. SHI's surveying capabilities involve a wide range of hydrographic, topographic, and marine geophysical mapping services focusing primarily on high-order accuracy and high-resolution products. SHI uses the most advanced sonar systems to produce precise, accurate, and reliable products. Surveys are designed to exceed current USACE accuracy standards. Surveys frequently support a wide range of applications (e.g., bathymetric conditions; verifying safe navigation; underwater structural integrity analysis; underwater object, debris, and hazard detection surveys; dredging and construction measurement and payment; eelgrass characterization; and flood control surveys).

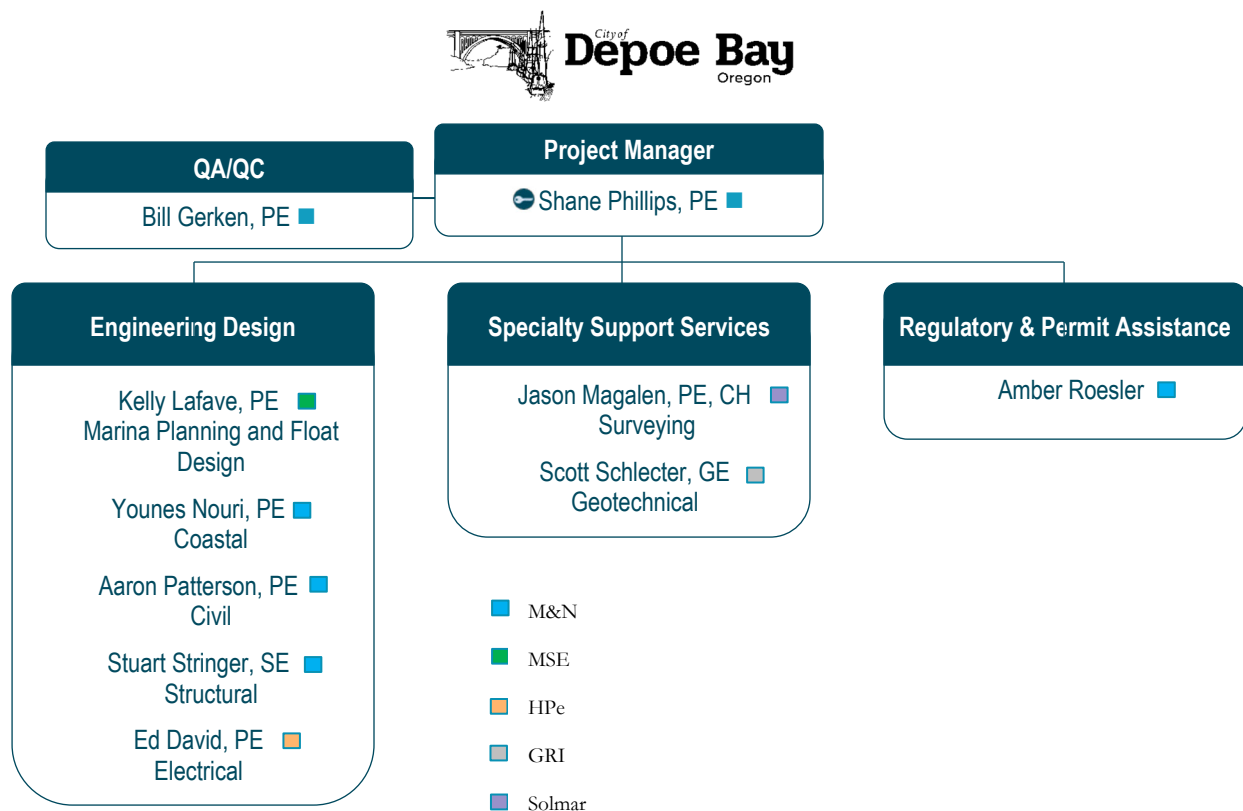
ATTACHMENT 1 - TEAM & PROJECT MANAGER EXPERIENCE, QUALIFICATIONS

Key Personnel

Our core team of professionals were selected for this project to provide the specialized expertise in floating structure evaluations and design that requires a combination of skills to evaluate the complexities of passenger use, floating bodies in complex hydrodynamic conditions, marine construction methods which impacts both cost and schedule, and environmental impacts.

Our proposed project manager, Shane Phillips has prior working experience at the project site, is an Oregon State licensed civil engineer with specialized experience in marina redevelopment work, demonstrated experience across design, permitting and construction phases for grant funded projects, and has experience evaluating and developing mitigative measures for existing floating structures with unique coastal hydrodynamic exposure environments. Shane Phillips will lead the M&N team as Project Manager and Engineer of Record. His previous experience with the conceptual planning study for the City, along with his strong technical background in ports and coastal engineering will provide the City with the leadership to deliver the project. Prior to joining M&N, many of Shane's waterfront projects were located along the open coast or exposed shorelines of CA, OR and WA.

Resumes for key personnel are provided on the following pages. The organization chart below illustrates the project teams roles, responsibilities, and reporting relationships.



Approach to Managing Projects and Project Delivery

Our project management approach is founded upon highly qualified technical expertise. The City will be informed throughout the project delivery process assuring knowledgeable decisions can be made. There are five primary phases to our delivery approach: a project kick-off meeting, design, permitting, construction bid documents, and bid and construction support.

The primary objective of M&N's project management approach is to assure technically proficient, timely, and cost-effective execution of the work assignment at hand. Our management approach has been designed to achieve this objective using components of management strategies that have proven successful on similar marina projects involving floating docks and fueling facilities. To provide the City with services that are responsive to a variety of needs, while maintaining the technical quality of final deliverables and budget/schedule control, we designed our management approach to provide clearly defined lines of communication and management responsibilities, including the following key features:

- A fully **dedicated and experienced project manager, Shane Phillips, PE**, who will serve as the central point of contact with the City's staff.
- An **integrated compact team** of consultant resources that have worked together on similar type projects.
- Clear, centralized management procedures for **financial control and quality assurance** that provides weekly cost accounting reporting for each person working on the project.
- **A proactive approach to problem solving** which provides direct City input and access to the M&N team.
- A simplified management structure with areas of **responsibilities and accountability** defined.
- A project manager that **maintains communication directly with the City** and is accessible.
- **Risk management through the development of a risk register to outline external or internal risks** to schedule, cost, operations, or regulatory permitting. The risk register will be a tool used throughout the execution of our design progress as well as QA/QC program.
- Assignment of a **senior quality control specialist to provide reviews throughout the life of the project** to help assure the highest caliber engineering documents are produced.
- **A team of technical experts** with varied discipline backgrounds and expertise to provide technical and regulatory guidance throughout the project.
- Our project manager and team prior **experience implementing boating facility improvement projects under a wide range of state and federal grant funding programs**. We will outline the funding requirements as part of our basis of design to ensure our work is in compliance throughout the design process and meets the requirements for compliance at the end of the work.

Project Manager

Our Project Manager, Shane Phillips (resume on next page), will be in charge of supervising and coordinating all team members and communicating with the City staff. It is anticipated Shane will spend up to 20% of his time on this project depending on the phase of work throughout its duration. More time will be spent during critical time periods of execution such as startup, refinement of prior phase work, development of alternatives, deliverables development and participating in stakeholder and City council process. Mr. Phillips follows a project management approach that is proactive, consultative and focuses on project delivery, while maintaining quality and budgetary control. He works diligently to provide the right people, organization and systems to support our client's needs, in order to effectively identify, manage and control the scope and costs of infrastructure programs. He understands the myriad of small details and issues on a project like this that need minding, and that otherwise can impact adversely the project scope, schedule, budget and deliverables. Managing all four effectively is essential for project success and meeting client expectations. Mr. Phillips has served as contract manager on a large number of multidisciplinary water resources projects with similar scope and scale. Many of these projects have included Marine Structures and GRI as a sub-consultants. A few examples of Shane's project management experience with descriptions of how they relate to the Depoe Bay Project are as follows:

- **Grant County PUD No. 2 - Crescent Bar Recreational Improvements.** Mr. Phillips was contract manager and assisted in development of recreation programs for the Shoreline Management Plan for Grant County PUD No. 2 for improvements that occurred over multiple phases and total contract value over \$15 million. Work elements included feasibility engineering analysis, detailed engineering design, stakeholder engagement, regulatory permitting, operation and maintenance assessments, bidding assistance and construction phase assistance. Project work included navigation channel dredging, dredged material management, navigation aids, bank stabilization, ADA access, boat ramp, 2 marinas (day use 16 slip and permanent 32 slip marina), moorage floats, and fuel dock.
- **Washington State Parks & Recreation Commission - On-Call Marine Facility Engineering and Permitting Services.** Mr. Phillips was Project Manager responsible for leading a team of coastal, structural, and civil engineers to assist North Puget Sound Region of WA State Parks with improvements at 6 waterfront park project sites including James, Doe, and Matia Islands as well as Cornet Bay, Ft. Casey and Cama Beach Parks. Contract work included data collection, coastal processes analysis, marine structure assessments, new facility design and assistance with regulatory permitting. Each site included ADA access, gangways, and new moorage floats with support piles. A few sites included utilities and the sites located in San Juan Islands included special considerations for rock socketing of piles. Cornet Bay included a full replacement of an existing Marina with new moorage floats, access pier, gangway and support piles.

Project Manager | Moffatt & Nichol

Shane Phillips is a professional civil and coastal engineer with more than 28 years' consulting experience related to coastal, ports, marine and waterfront facility planning and engineering. He has provided expertise in planning studies, feasibility evaluations, facility inspections, preliminary and final design and construction engineering of ports, coastal, and water resources project work. Shane has led complex, multi-disciplinary teams composed of architects, planners, regulatory specialists, engineers and scientists from scoping through project completion for projects requiring strategic planning, stakeholder and public involvement, regulatory permitting and hydrodynamic processes evaluations. He has experience planning and designing marina facilities, floating structures, small craft harbors, breakwaters and public access piers and facilities on over 100 projects in Washington State. Shane was part of the team that developed the Depoe Bay Marina conceptual design (prior to Moffatt & Nichol).

EDUCATION

BS, Civil Engineering,
Washington State University,
Pullman, 1993
MIPM, Infrastructure, Planning &
Management,
University of Washington,
Est. 2022

REGISTRATION

Professional Engineer
Washington, Civil 34656, 1997
Oregon, Civil 88031, 2013
California, Civil 57552, 1997
Idaho, Civil 16847, 2016

CERTIFICATIONS

ACOPNE Diplomate in Coastal
Engineering & Port Engineering

REPRESENTATIVE PROJECT EXPERIENCE

City of Depoe Bay Docks 2-4 Concept Engineering & Cost Estimating, Depoe Bay, OR. Project Manager. Conducted feasibility assessment and developed a master plan for replacement of the floating docks at the City commercial and recreational boat marina. Reviewed available data, developed criteria, evaluated constructability for site conditions (shallow bedrock), evaluated dock structure material types, assessed hydrodynamic conditions for selection of a heavy-duty dock system, and developed a conceptual level engineering plan and estimate of construction costs. Summarized conceptual design in a summary report and presented results at City Council public meeting.

Jackson County Oregon Howard Prairie Resort Marina Engineering Services, Jackson County, OR. Project Manager. Engineering assessments, analysis and final design for new marina facilities at Howard Prairie Resort Marina. Project elements include a float and anchor system; wave attenuator; nearshore dredging; gangways; bulkheads and shore protection; fueling system; electrical system; sewage pumpout system; potable water system; upland paving, striping and signage for ADA compliance and repair.

Hat Island Marina Basin Rehabilitation Maintenance Dredging and Marina Expansion, Hat Island Community Club, Hat Island, WA. Mr. Phillips was Project Manager from feasibility study through permitting, final design, and construction administration for a marina rehabilitation and 26-slip expansion project. Project components included entrance breakwater modification (rubblemound and steel pile combination wall), dredging, new shoreline protection, marina slip expansion, passenger ferry dock, single lane boat ramp and ADA access improvements.

Port of Willapa Harbor Tokeland Marina Improvement Project, Toke Point, WA. Project Manager. Phase 2 of the Port's long-term Master Plan for improvements to the marina facility. Completed final engineering design of improvements to three main project elements: Floating breakwater, A-Float (transient moorage, 24 slips), ADA accessible pier and gangway system, commercial pier (precast concrete deck with steel pile bents), upland parking lot improvements with storm water and ADA accessibility. Developed final PS&E, bid documents, provided bidding phase assistance and construction administration.

Entiat Marina Development Preliminary and Final Design, City of Entiat, Entiat, WA. Project Manager. The City of Entiat desired to build a new marina along the Columbia River. Project objectives were to obtain regulatory permits and secure funding for construction of the marina. Mr. Phillips, Project Manager, was responsible for the in-water and over-water project elements. Improvements included a 53-slip marina, entrance channel dredging, debris booms, bank stabilization (riprap armoring), navigation aids, fuel float, and access piers/gangway system.

Port of Poulsbo Marina Improvements to “C” Dock, Poulsbo, WA. Project Manager. The Port of Poulsbo intended to replace the existing steel gangway, concrete landing float at “C” Dock and moorage floats with new ADA compatible facility. Mr. Phillips provided planning, design, permitting and construction phase assistance for the moorage and ADA access improvement project.

Point Ruston Marina Asarco Property, Mc Construction, Ruston, WA. Project Engineer. As part of the old Asarco property nearshore cleanup, a private company proposed to conduct nearshore cleanup and restoration to clean up the project site and evaluate the feasibility of constructing a new marina. Responsible for conducting coastal engineering analysis (wave analysis, tidal currents) for the proposed marina location, determination of design criteria (vessel size and distribution mix for new marina), breakwater structure type evaluation for the site conditions (rubblemound, pile supported and floating), and marina facility layout analysis. The preferred concept was a 500 slip marina facility with floating breakwater. Developed final concept plans, construction cost estimates and final report.

Port of Garibaldi Maintenance Dredging, Port of Garibaldi, Garibaldi, OR. Project Director. Mr. Phillips oversaw engineering work for maintenance dredging design for access channel and marina at a commercial small craft boat harbor on Oregon Coast. Work included hydrographic surveying, preliminary engineering, dredged material management regulatory permitting.

Grant County PUD No. 2 – Crescent Bar Off Island Recreational Improvements, WA. Project Manager. Conducted preliminary and final engineering design for navigation channel and boat basin dredging, dredged material management, and dredged material disposal; navigation aids; swim area improvements; new boat ramp and handling floats; new 12 slip day use marina and gangways; shoreline stabilization improvements for day use park shoreline, bridge crossing, and boat basin adjacent to the day use marina.

Chelan Ridge Marina Planning and Design, Chelan Ridge Homeowners Association, Lake Chelan, WA. Project Manager. Chelan Ridge Homeowners Association was proposing to install a new 26-slip marina on Lake Chelan approximately one mile east of Lake Chelan State Park. Work included conducting a coastal engineering analysis for evaluating floating breakwater requirements, mooring arrangement and forces on floating structures. A unique braced pile system for the steep bedrock slopes were developed as the preferred dock support system.

Saxman Harbor Design, City of Saxman, AK. Project Manager. Assisted with coastal engineering for the planning and design of a system of fixed breakwaters and floating wave attenuators to protect the new boat harbor and provide adequate mooring conditions at Saxman, AK. Conducted coastal engineering analysis for existing and proposed new marina location (waves, currents and passing vessel), evaluated wave protection requirements (fixed, rubblemound and floating), and finalized configuration of new marina to maximize wave protection relative to construction costs.

BILL GERKEN, PE

Project Director / QAQC | Moffatt & Nichol

Bill is a senior coastal engineer and project manager who specializes in coastal and marine design and construction. His 30 years of experience covers all project phases, including project management, planning, permitting, coastal processes, dredging design, marine facility design, plans/specifications, cost estimating, construction oversight, and site and fabrication inspection. His experience from both consultant and contractor perspectives has given Bill a unique understanding of marine and coastal conditions, along with the experience of interacting with clients, consultants, contractors, government agencies, and the public planning process.

Bill has spent extensive time working in the field, both internationally and throughout the coastal United States. His field experience covers a variety of activities, dredging, contaminated sediment dredging, and capping, pile driving and marine construction, breakwaters and shore protection, bathymetric and topographic surveys.

Bill began his career as a field engineer for a major marine construction contractor. This experience instilled a career long belief that understanding how things are constructed, and engaging with contractors, is an important part of the design and permitting process.

EDUCATION

BS, Ocean Engineering, Texas A&M University

REGISTRATION

Professional Engineer

WA, Civil No. 34802 1998

REPRESENTATIVE PROJECT EXPERIENCE

Elliott Bay Marina Floating Breakwater Replacement, Seattle, WA. Project manager for replacement of a 1,090-foot-long by 15-foot-wide floating breakwater, which protects the eastern side of a 1,200-slip marina basin. The floating breakwater design integrated 27 existing finger floats providing 56 vessel slips along its western (marina) side and existing concrete foundation pile. The breakwater provides yacht moorage along the eastern side. The new breakwater includes upgraded electrical services, water, and fire system. Work included permitting, design, production of drawings and performance specification, coordination with suppliers and contractors, and construction support.

Port of Kennewick, Clover Island Marina Design, Kennewick, WA. Project manager who provided engineering services for the Clover Island Redevelopment master planning team and led the design effort for the Clover Island Marina for the Port of Kennewick. The marina project includes redevelopment of a 150-slip marina (70% covered moorage), transient and boat house moorage, approach pier, gangways, utilities, and additional amenities. Provided engineering, developed performance specifications, and bidding and construction administration assistance. The project received an AGC Build Washington Award.

City of Oak Harbor, Oak Harbor Marina Redevelopment Plan, Preliminary Engineering and Permitting, Oak Harbor, WA. Project manager who led a multidisciplinary team that developed a Marina Redevelopment Plan for the redevelopment of Oak Harbor's marina. The plan addressed accommodation for larger recreational vessels, evaluation and phased replacement of the marina, and maintenance. Following adoption of this redevelopment plan, Mr. Gerken led the team that provided preliminary design and permitting services for redevelopment of the 350-slip marina. The project included surveys, PSDDA sampling and analysis, permitting for approximately 200,000 cubic yards dredging, a reconfigured/expanded slip mix, and development of an acceptable mitigation strategy.

YOUNES NOURI, PHD, PE

Coastal Engineer | Moffatt & Nichol

Dr. Younes Nouri offers in-depth knowledge and experience with analysis and numerical modeling of waves, tidal flow, sediment transport, tsunami waves, and propwash analysis drawing from 15 years of professional and academic experience in the coastal engineering field. Younes has been collaborating with clients to develop sustainable waterfront projects. His experience includes more than 30 projects just in the Pacific Northwest in addition to national and international projects just in the past 5 years.

He works on the full extent of projects from concept development to final design. He brings a menu of analysis options from site reconnaissance to three-dimensional modeling to balance the level of effort with project phase. He has successfully assisted clients communicate physical processes that govern the design of waterfront projects at public outreach events and in addressing regulatory agency comments and concerns.

EDUCATION

PhD, Coastal Engineering,
Johns Hopkins University, 2012
MAsc, Coastal Engineering,
University of Ottawa & Canadian
Hydraulics Center, Ottawa,
Ontario, Canada, 2008
BS, Civil Engineering, University
of Tehran, Iran, 2003

REGISTRATION

Professional Engineer
CA, Civil, 83037, 2014
WA, Civil, 21032861, 2021

REPRESENTATIVE PROJECT EXPERIENCE

Mukilteo Ferry Terminal Floating Breasting Dolphin, Mukilteo, WA. Coastal engineer leading review and analysis of the design approach velocity used for estimation of berthing energy and anchor line loads developed by WSF and WSDOT engineers. This review included assessment of available information on currents (including field data measurements, current speed predictions, and ferry captain observations) used by WSF and WSDOT engineers to establish the design current speed and vessel approach velocity.

Southworth Ferry Terminal Trestle Replacement Project: Tsunami Design Forces, Southworth, WA. Senior coastal engineer who reviewed calculation of tsunami wave-induced design forces on the trestle using guidelines provided by the ASCE 7-16 Chapter 6 titled "Tsunami Loads and Effects". Younes provided guidance to junior engineers on adapting the ASCE guideline developed for inland structures to the pier structure.

Mukilteo New Ferry Terminal Feasibility Analysis, Mukilteo, WA. Coastal engineer who conducted modeling of outfall discharge and dilution zone using the CORMIX software package to analyze near-field and far-field mixing. Services included performing a diffuser design study to evaluate single-port and multi-port diffusers and examine if the regulatory agency requirements can be met.

Mukilteo Terminal Pile Debris Loading Analysis, Mukilteo, WA. Coastal engineer and project manager. Provided floating debris loads on piles and utilities below the proposed trestle at the proposed new Mukilteo Ferry Terminal for wind-waves and currents using results of previously conducted coastal engineering analysis. Managed budget, schedule and coordination with client.

Skagway Ferry Terminal Modification Additional Wave Analysis, Skagway, AK. Coastal engineer who performed wave generation and propagation numerical modeling for the design storm event using SWAN and HWAVER. Extracted wave height, period and direction from results of the numerical modeling for three simulated storm events. Modeling results were used to compute wave forces on the ferry and total loads on the dock. The modeling results were also used to determine conditions when total loads on the dock met operational limit criteria.

AARON PATTERSON, PE

Civil Engineer | Moffatt & Nichol

Aaron's 13 years of engineering experience is concentrated on the planning, design, construction document preparation, and bid/post-construction-award services for a multitude of project types on or near the water. His project experience includes utility design and relocation, hydrologic and hydraulic analysis of stormwater systems, construction phasing, scheduling, earthwork, paving, site demolition, and cost estimating. He has also performed topside and underwater inspections of many types of waterfront facilities. His engineering experience is concentrated on the development of waterfront facilities such as ports and harbors. His experience includes planning, design, construction document preparation, and bid/post-construction-award services. His projects have included detailed utility design, earthwork, site demolition, and traffic analysis.

REPRESENTATIVE PROJECT EXPERIENCE

Cap Sante Marina A-Dock Replacement, Anacortes, Washington.

Civil engineer for the replacement of an aging float system that serves the local commercial fleet. M&N supported the Port of Anacortes with engineering design, bidding and award support, and construction support services for the Cap Sante Marina A-Dock Replacement Project. The dock was aging and nearing the end of its useful life, requiring replacement and upgrades. Associated upland improvements include a covered shelter for pedestrians, improved access and site amenities such as dock cart storage and enclosures for facility refuse. Other site improvements included raising the promenade grade to match the adjacent sidewalk for improved access and upgrading the dock entrance

Elliott Bay Marina Breakwater Replacement, Seattle, Washington. Engineer-Diver, Civil Engineer, and Construction Scheduler. M&N is supporting the Elliott Bay Marina with the design, permitting, and construction of a new 940-foot floating breakwater for their existing Seattle marina.

Docks O-P-Q Repairs, Cap Sante Marina, Anacortes, Washington. Project manager for the assessment and repair design of the existing concrete floats located in Cap Sante Marina. The repairs were focused to replacement of the timber walers. Construction is currently ongoing as impacts to supply chain continue during the pandemic.

Docks C, E, and F Replacement, Phase II Friday Harbor, Washington. Project engineer and assistant project manager for the partial replacement and reconstruction of the existing timber docks at the Port of Friday Harbor. The project replaced portions of existing timber floats with new concrete floats. The design included new utilities and piling at the Port of Friday Harbor. Responsible for detailed design for the float system, utility design, specifications, cost estimating, bid support, and construction support. During construction, performed field investigations and onsite construction support.

EDUCATION

BS, Civil Engineering, University of Washington, 2008

REGISTRATION

Professional Engineer - Washington, #50289, 2013

CERTIFICATIONS

ADCI Surface-Supplied Air Diver

FHWA-NHI-130055: Safety Inspection of In-Service Bridges, 2017

FHWA-NHI-130091: Underwater Bridge Inspection, 2013

DCBC Restricted Surface Supplied Diver

First Aid/AED/Emergency Oxygen Provider

OSHA 30-hour Training

EM-385 Safety Training

STUART STRINGER, PE, SE

Marine Structural | Moffatt & Nichol

Stuart has 13 years of structural design experience gained on new and retrofit waterfront, marine, and bridge projects. He has experience with the analysis and designing reinforced, precast, and prestressed concrete, steel, and timber structures including work on piers, wharves, trestles, ferry terminals (floating and pile supported), guide pile systems, mooring and berthing structures, bulkheads and seawalls, complex bridge structures utilizing steel, reinforced concrete and prestressed concrete construction, and the seismic retrofit bridges. He has experience with construction support services, contract document (plans and specifications) development, cost estimating, project scheduling, load ratings, and research.

EDUCATION

MSCE, Structural Engineering,
University of Washington, 2010

BSCE, Civil and Environmental
Engineering, University of
Washington, 2008

REGISTRATION

Professional Engineer -
Washington, Structural, #52367,
2019

Washington, Civil, #52367, 2015

REPRESENTATIVE PROJECT EXPERIENCE

Boat Haven Fuel Float Replacement, Port Angeles, Washington. Design engineer for the preliminary through final design and construction support services for the fuel float replacement at the Port of Port Angeles Boat Haven. The float replacement includes replacing existing fuel float with a new 15- by 70-foot concrete float anchored with steel guide piles, and a new aluminum gangway. The float supports new gasoline and diesel fuel pumps, sewage pump out stations, and an attendant booth along with all associated utilities. The preliminary design was summarized in a report to support application for the Washington State RCO BIG.

Bulkhead Replacement, Everett, Washington. Project engineer that worked on the analysis and design for the replacement bulkhead and viewing platform structures for the Port of Everett. The replacement bulkhead consisted of sheet piles, tiebacks, and buried deadman anchor blocks. Design responsibilities included the design for the steel walers, bearing plates, stiffeners, and deadman anchor blocks. The viewing platform consisted of an abnormally shaped platform, supported by steel pipe piles, that is adjacent to the replacement bulkhead. The platform consisted of reinforced concrete pile caps and precast concrete deck panels. Other responsibilities included the preparation of contract documents (drawings and specifications), and construction support services.

Cap Sante Marina A-Dock Replacement, Anacortes, Washington. Structural QA/QC reviewer for the replacement of an aging float system that serves the local commercial fleet. The Port desired to have a completed project in an accelerated timeframe. To account for long lead items, the project would consist of a procurement package and a separate installation package. The floats, piling and electrical equipment would comprise the procurement package. Development of the adjacent upland site work and installation of the early procured items would comprise the installation package.

Elliott Bay Marina Breakwater Replacement, Seattle, Washington. Project engineer. M&N is supporting the Elliott Bay Marina with the design, permitting, and construction of a new 940-foot floating breakwater for their existing Seattle marina.

Reconstruction of Docks C, E, and F, Friday Harbor, Washington. Project engineer responsible for the review of construction documents, submittals, and RFI's for the reconstruction of the failing timber docks at the Port of Friday Harbor Marina.

AMBER ROESLER

Permitting | Moffatt & Nichol

Amber has 18 years of experience working in environmental consultation focusing on in-water project permitting and construction support, hazardous material spill response, Phase I and Phase II ESAs, and marine and freshwater sediment characterization. Her experience includes permitting support related to dredging and in-water structures, permit application development [Joint Permit Application (JPA), Joint Aquatic Resources Permit Application (JARPA), State Environmental Policy Act (SEPA)], and coordination with USACE. She is experienced in remedial investigations/feasibility studies (including work plans, investigations, and reporting) and dredge material characterization studies leading to suitability determinations. Amber's history of good working relationships with the federal, state, and local permitting agencies facilitates the approval process and results in timely and positive outcomes. She is very successful at coordinating with multidisciplinary teams, maintaining the project schedule, budget, quality goals during design, and providing critical support during construction activities.

EDUCATION

MS, Geochemistry, Montana
Tech of the University of
Montana
BS, Chemistry, Montana Tech of
the University of Montana

REGISTRATION

TWIC
OSHA Hazardous Waste
Operations and Emergency
Response Standard
(HAZWOPER)

REPRESENTATIVE PROJECT EXPERIENCE

Port of Grays Harbor – Maintenance and Repair Permitting, Grays Harbor, WA. Amber is working with the Port of Grays Harbor to provide environmental permitting services related to in-water maintenance repair and dredging. **She prepared, submitted, and successfully obtained permits for four separate maintenance and repair projects at the Port's facilities in 2020** including: repairs to a floating dock within a public marina that was damaged by a fishing vessel collision; replacement of treated timber fender piles and steel H-pile at Terminal 4 pier that were damaged by a vessel collision into the pier; replacement of damaged timber guide piles for floating docks at various locations within the public marina; and replacement of log boom at a public dock. Each of the projects required a permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 from the USACE, consultation under Section 7 of the Endangered Species Act and the Magnuson-Stevens Fishery Conservation and Management Act. Responsibilities included preparation of Joint Aquatic Resources Permitting Applications and Endangered Species Act compliance documentation for submittal to the USACE, Washington Department of Fish and Wildlife (WDFW), and the various local agencies to acquire necessary permits for the projects. **The permits were all received within two months, with no mitigation required and with minimal or no questions/comments from the agencies.**

In-Water and Beach Nourishment Maintenance Dredging Permits and Dredged Material

Characterization, Kalama, WA Environmental scientist responsible for assisting the Port of Kalama with management of their maintenance dredging program from 2012 to the present. The Port has four terminals and a marina that require periodic dredging; the TEMCO grain terminal requires yearly dredging of 50,000 to 100,000 cubic yards. Work tasks include:

- Obtaining long-term (10 year) maintenance dredging permits and approvals for dredging the terminals and marinas.
- Working with the Port and coastal engineering team to identify and obtain permits for new in-water dredged material placement and beach nourishment sites, including coordination with the USACE Navigation Division and 408 evaluations.
- Completing various permit modifications for changes to the maintenance program based on dredging volume, work windows, and updating state and local permits as-needed based on varying authorization timeframes (i.e. renewing the 401 Water Quality Certification for both Oregon and Washington dredge disposal sites, Oregon Department of State Lands Removal/Fill permits for the Port's Oregon dredge disposal sites, Hydraulic Project Approvals and sediment

recency), developing and successfully implementing dredged material characterizations including developing sampling and analysis plans (SAPs), collecting samples, managing chemical analytical programs, data evaluation, regulatory coordination and reporting.

- Preparing Water Quality Monitoring Plans for Contractor use during mechanical and hydraulic dredging along with in-water placement, beach nourishment and upland disposal activities.
- Reviewing annual adaptive management plans for in-water disposal and beach nourishment plans required by the USACE and prepared by the coastal engineer.
- Working with the Port on yearly program needs and goals.

Amber has been working closely with the Port on their dredging program since 2014 and has been involved in design, permitting, and construction support since that time. Her work during 2020/2021 included coordinating with the agencies on the Port's behalf and receiving quick turnaround approvals for the following: 1) using hopper dredge modification; 2) emergency dredging at TEMCO prior to the start of the in-water work window; 3) three-week extension of the in-water work window for marina dredging; 4) new upland placement site modification for TEMCO; and 5) dredge volume and rip rap placement modification to marina maintenance and repair permit.

KELLY DAVID LAFAVE, P.E.
PRESIDENT, MARINE STRUCTURES ENGINEERING, INC.

SPECIAL QUALIFICATIONS

Mr. LaFave is a Registered Professional Civil Engineer in Washington, Oregon, California and Alaska with experience dating from 1984 in the design and manufacture of concrete, steel, timber and hybrid float systems. Kelly holds both Masters and Bachelors degrees in civil and environmental engineering earned at Washington State University. Kelly has been responsible for the planning, permitting, design and construction inspection for a wide variety of civil and structural waterfront projects including bulkheads and retaining walls; pile-supported piers and docks; heavy-duty commercial piers, boat launchers and launching ramps; barrier-free and long span aluminum gangways and various heavy-duty floats, marinas, and floating wave attenuators. He has also designed various upland facilities for waterfront projects including wash water collection and treatment facilities, trash and recycling centers, wetland trails and parking lots. In addition to his waterfront structures design expertise, Mr. LaFave has extensive experience in structural analysis and computer modeling of structures.

SAMPLE PROJECTS

Design Engineer, Ketchikan Gateway Borough – **Loring Service Area Float**, Ketchikan, Alaska. Designed a 12 feet wide by 100 feet long glulam log float and pipe pile anchoring system for transient vessel service in up to four feet seas.

Design-Build Engineer, **Private Moorage Float and Access Pier**, Excursion Inlet, Alaska. Designed a 700 square feet, winter removable, severe-duty HDPE pipe and glulam float with a 7 feet by 85 feet aluminum gangway and 8 feet by 60 feet aluminum access pier and steel pipe anchor piles.

Design Engineer, Port of Anacortes – **P/Q Pier Widening and Small Craft Launcher**, Anacortes, Washington. Designed jib-crane launcher that included widening and seismic strengthening of an existing timber pier, new steel pile supported jib crane and staging float.

Design-Build Engineer, **Port of Siuslaw – Maple Street Dock**, Siuslaw, Oregon. Designed new 10' wide by 750 feet long, modular concrete float for fishing and recreational vessels in exposed coastal location. Project included the design of the steel pipe anchor pile system.

Design-Build Engineer, **Port of Willapa Harbor Float**, Raymond, Washington. Designed new 10 feet x 300 feet all-timber float system for moorage of 100 feet long fishing vessels in an exposed coastal location.

Design-Build Engineer, **Salmon Bay Yacht Center**, Seattle, Washington. Designed state-of-the-art monolithic floats and hidden pile system for high-end yacht basin catering to vessels from 100 to 150 feet in length.

Design-Build Engineer, **Fisherman's Terminal Float Reconfiguration**, Seattle, Washington. Designed concrete floats and connections for 53,000 square foot of floating docks to berth commercial vessels from 36 feet to 200 feet in length.

Design-Build Engineer, **Seward South Harbor Floats and Gangway**, Seward, Alaska. Designed 35,000 square foot heavy-duty timber float system and aluminum gangway to accommodate commercial vessels 35 feet to 100 feet long.

Design Engineer, **Deer Harbor Marina Replacement** project, Deer Harbor, Washington. Located on Orcas Island, the Deer Harbor marina project included design of the 20,000 square foot marina, anchor piles and aluminum gangway. Project was completed as design-build and extremely fast track. All piles were installed prior to the float system and were located in deep water and in poor soil.

Design Engineer, **Roche Harbor Marina**, Roche Harbor, Washington. Project started as Design-Build competition and included design of 270-slip marina, approach pier, aluminum gangway and anchor piles. This exposed marina was designed to withstand 3.5 foot high waves and was located in deep water over poor soils.

Design Engineer, 80-slip short-term moorage facility for **Port of Seattle's Central Waterfront Project** in Seattle, Washington. Designed heavy-duty concrete float system, with 180 ft. long barrier-free gangway and ramp access and deep-water steel pipe pile anchoring system.

Design Engineer and Project Manager, **La Conner Marina Boatyard Wastewater Treatment Facility**, La Conner, Washington. Designed facility for the collection, treatment and recycling of waste water from boat washing operations including 6000 sq. ft. of concrete slabs-on-ground, a 2600 sq. ft. metal building with mechanical room and a wastewater treatment system.

Design Engineer, **Double-rail Boat Launcher**, Port of Edmonds Marina, Edmonds, Washington. Designed new, all-steel boat launcher with concrete launching floats. Evaluated capacity and condition of existing timber-framed launcher. Performed conceptual design analysis, layout surveying, structural and civil design, contract administration and construction inspection.

Design Engineer, **Tamgas Creek Fish Hatchery** in Metlakatla, Alaska. Designed 300 foot long rubble-mound access jetty, timber pier and steel-pipe floating platform capable of withstanding 7 foot seas. Performed wind and wave hindcast, calculated armor rock sizes and material quantities for jetty, and performed structural calculations for the float and its anchor system.

EDUCATION

M.S., Civil Engineering, Washington State University, Pullman, Washington, 1990

B.S., Civil Engineering, Washington State University, Pullman, Washington, 1989

PROFESSIONAL REGISTRATION

Professional Engineer (30745), Washington, 1994

Professional Engineer (17356), Oregon, 1994

Professional Engineer (CE-9666), Alaska, 1998

Professional Engineer (C 59047), California, 1999

PROFESSIONAL ASSOCIATIONS

Member, American Society of Civil Engineers

PUBLICATIONS

LaFave, Kelly D., "Comprehensive Load Distribution Model for Wood Truss Roof Assemblies," Wood and Fiber Science, v24(1) January, 1992.

LaFave, Kelly D. (Thesis), "Experimental and Analytical Study of Load Sharing in Wood Truss Roof Systems," Washington State University, 1990.



HARBOR POWER
ENGINEERS, INC.

ELECTRICAL ENGINEERING FOR COASTAL & WATERFRONT FACILITIES



Port of Umm Qasr, Iraq— Piers 1 & 2



Port of Everett – 12th Street Marina



Port of Port Angeles – Boathaven

Education:

Electrical Engineering, CCAF
University of Maryland

Registration:

Electrical PE – Oregon, Alaska,
California, Washington, Guam

Professional Affiliations:

Institute of Electrical & Electronic
Engineers (IEEE)
American Boat and Yacht Council
(ABYC)

Ed David, P.E.

Principal/Senior Electrical Engineer

Ed has over 30 years of applied electrical engineering, project management and design experience, specializing in electrical power system design for marine and port facilities. He has designed over 200 projects involving piers, wharfs, docks, dry-docks, waterfront buildings, and boat/shipyards; including power systems design for complete marinas. As a specialist Ed has an in depth understanding of the systems unique to this industry, including shore power/cold ironing, high mast lighting systems, boat ramps, and launch facilities.

Clients appreciate Ed's enthusiasm, clarity in communications, and pro-active management style.

Select Oregon Project Experience:

- The Dalles Marina – Electrical System Replacement, The Dalles, OR
- USCG Covered Moorage, Coos Bay, OR
- USACE Wyeth Columbia Treaty Access, Wyeth, OR

Select Moffat & Nichol Project Experience:

- Elliot Bay Marina – Breakwater Replacement, Seattle, WA
- Port of Anacortes – A Dock Replacement, Anacortes, WA
- Port of Everett – Shipyard MTCA Cleanup, Everett, WA

Select Moffat & Nichol Project Experience:

- Waterfront Place District Development, Everett, Washington
- Port of Poulsbo – Breakwater Replacement, Poulsbo, WA
- Port of Anacortes – B Dock Electrical Replacement, Anacortes, WA
- Port of Bellingham – Gate 3 Expansion; Bellingham, Washington
- Tacoma Old Town Dock Reconstruction; Tacoma, Washington
- Port of Olympia A Dock Replacement; Olympia, Washington
- Port of Anacortes West Basin Redev. C & D Docks; Anacortes, WA
- Port of Anacortes Fuel Dock Replacement; Anacortes, Washington
- Langley Harbor Redevelopment; Langley, Washington
- Port Townsend Boathaven Docks A & B; Port Townsend, WA
- Port of Seattle – Terminal 91 Passenger Boarding Sys; Seattle, WA
- Oak Harbor Marina Redevelopment; Oak Harbor, Washington
- Port of Edmonds Marina Reconstruction; Edmonds, Washington
- POE Central Marina Improvements, Everett, Washington
- POE Marina District Electrical Infrastructure, Everett, Washington
- 13th Street Underground Utilities, Everett, Washington

www.harborpower.net



Scott Schlechter, PE, GE, D. PE

Geotechnical Principal



Scott has focused his 21-year career on the seismic design aspects of waterfront facilities with challenging soil-structure interaction; deep foundation design; utilities; and ground improvement considerations. Scott actively serves on the national ASCE Coast, Oceans, Ports, and Rivers Institute and has achieved the ASCE Diplomate Status in Port Engineering, recognizing his experience and expertise in evaluating waterfront projects. He has managed and served as lead geotechnical engineer for numerous waterfront development projects, which have addressed considerable permitting and engineering requirements. He combines his advanced expertise and understanding of design to develop constructable solutions that meet the needs of the project.

REPRESENTATIVE EXPERIENCE

Jackson County Howard Prairie Marina Replacement, Jackson County, OR. The marina replacement project includes construction of a new floating dock structure to provide 165 seasonal boat slips, 18 rental boat slips, a day dock, and a fueling station. A gangway will connect the dock to the existing parking lock. GRI reviewed existing subsurface information and completed additional borings and test pits to characterize subsurface conditions for the dock and gangway. Scott managed GRI's engineering studies to develop axial and lateral resistances for drilled and socketed steel pipe piles and recommendations for construction of the foundations in accordance with ASCE 7-10, Minimum Design Loads for Building and Other Structures. GRI is presently providing observation services during site earthwork and installation of piles.

NOAA Marine Operations Center-Pacific, Port of Newport, OR. The National Oceanic and Atmospheric Administration selected the Port of Newport for the relocated home of agency's Marine Operations Center-Pacific which included includes a 1,500-foot-long dock with two access trestles and office and warehouse structures with footprints up to 150,000 square feet. Scott led the geotechnical team in providing seismic and geotechnical design recommendations to address the seismic hazards at the site and on-site observation services and consultation during construction for the award-winning project. GRI also helped lead efforts with the permitting agencies to evaluate underwater noise during the test pile program. The project received ACEC's 2012 Grand Award for Engineering Excellence and Honorable Mention for the ASCE Region 8 2011 Major Project of the Year.

Port of Newport, International Terminal Renovation, Newport, OR. Scott managed the phased geotechnical design and construction services evaluating alternatives to repair, seismically retrofit, and/or remove the two World War II concrete ships that form Berths 1 and 2 at the Port of Newport. Geotechnical criteria for the project were provided for design of landside and overwater structures including ground improvement to mitigate liquefaction hazards at the site. After successful construction, the project received the ACEC Oregon's 2014 Grand Award for Engineering Excellence and the national 2015 ASCE Coast, Oceans, Ports, and Rivers Institute Project Excellence Award.

Oregon International Port of Coos Bay, Coos Bay Channel Modifications, Coos Bay, OR. The Port proposes to widen and deepen approximately nine miles of the existing navigation channel to accommodate large, deep-draft container vessels and allow additional vessel maneuvering. GRI completed sampling and analysis plans (SAP) for the US Army Corps of Engineers and supplemental explorations. GRI is using these results to assess geotechnical stability and constructability of dredge cuts, geotechnical stability and the long-term equilibrium of side slopes adjacent to infrastructure, behavior of dredge material during handling and disposal, and areas of uncertainty and associated risks.

REGISTRATION

Professional Engineer: OR (74883), WA (40723), CA (C62498), ID (11907)
Professional Geotechnical Engineer: OR (74883)

EDUCATION

BS Civil Engineering, Oregon State University
MS Civil Engineering (Geotechnical Specialty), Oregon State University

MEMBERSHIP

Academy of Coastal, Ocean, Port & Navigation Engineers
American Society of Civil Engineers
Earthquake Engineering Research Institute
Officer, ASCE, Ports & Harbor Waterfront Task Committee

TRAINING

OSHA 40-Hour Hazmat Certification
Transportation Worker Identification Credential

ADDITIONAL EXPERIENCE

- City of Des Moines, North Marina Parking Lot Bulkhead and Breakwater, Des Moines, WA
- Port of Coos Bay, Ice Plant and Dock Replacement, Coos Bay, OR
- Port of Newport, Rogue Ales Brewery Bulkhead Wall Repair, Newport, OR
- Port of Newport, Dock 5 Pile Replacement, Newport, OR
- Port of Newport, Front Street Wharf Reconstruction and New Two-Story Commercial Building Design Build (Former Undersea Gardens), Newport, OR
- Jordan Cove Energy Project, Liquefied Natural Gas (LNG) Terminal, North Bend, OR
- Port of Portland, Pembina Propane Terminal, Portland, OR
- US Coast Guard, Neah Bay Covered Moorage, Neah Bay, WA



Jason Magalen, P.E., C.H.

Project Manager and Lead Hydrographer

EDUCATION

Master of Ocean Engineering,
Oregon State University

Bachelor of Civil Engineering,
Ohio State University

REGISTRATIONS

Professional Engineer –
Oregon, Washington,
California, Guam

NSPS/THSOA Certified
Hydrographer #276

FAA Part 107 Remote Pilot in
Command Cert. 3958163

PROFESSIONAL MEMBERSHIPS

American Society of Civil
Engineers (ASCE)

Western Dredging Association

National Society of
Professional Surveyors -
THSOA

National Society of
Professional Surveyors - PLSO

INDUSTRY TENURE

15 years

OFFICE LOCATION

Portland, OR

Jason has over 15 years' experience in hydrographic, topographic, and marine geophysical surveying, coastal and marine engineering, and oceanographic data collection. Projects have included dredging design, management, and surveying support; riverine, estuarine, and coastal numerical modeling; environmental and habitat restoration; evaluation and design of coastal structures; shoreline erosion and morphology studies; scour and sediment transport assessments; and associated permitting.

RELEVANT EXPERIENCE

Salmon Harbor Marina High-resolution Hydrographic Survey

Reedsport, OR (2022)

Completed a high-resolution MBES survey within the Salmon Harbor Marina to support dredge planning and permitting activities. Surveys required detailed planning around weather, tides, and river flow to maximize coverage beneath vessel slips. Final data products included ASCII XYZ dataset and DEM indicating bottom elevations beneath docks/slips.

South Beach Marina High-resolution Hydrographic Survey

Newport, OR (2021)

Completed a high-resolution MBES survey within the Pot of Newport (Oregon) South Beach Marina Small Boat Basin to support dredge planning and permitting activities. Surveys required detailed planning around weather, tides, and river flow to maximize coverage beneath vessel slips. Final data products included ASCII XYZ dataset and DEM indicating bottom elevations beneath docks/slips. Dredge template design and quantity calculations.

Des Moines Marina Hydrographic and Topographic Survey

Des Moines, WA (2021)

Planned and implemented a high-resolution MBES and sUAV survey of the Day Island Yacht Harbor. sUAV data were collected at as low a tide as possible while MBES data were collected at as high-tide as feasible. Final data products included an orthophoto of the survey area, an ASCII XYZ dataset, and combined hydro/topo DEM indicating elevations from upland to below water. Additional information provided included contours of the combined DEM for elevation comparisons.

Day Island Yacht Harbor Hydrographic and Topographic Survey

Tacoma, WA (2021)

Planned and implemented a high-resolution MBES and sUAV survey of the Day Island Yacht Harbor. sUAV data were collected at as low a tide as possible while MBES data were collected at as high-tide as feasible. Final data products included an orthophoto of the survey area, an ASCII XYZ dataset, and combined hydro/topo DEM indicating elevations from upland to below water. Additional information provided included contours of the combined DEM for elevation comparisons.

Small Boat Marina High-resolution Hydrographic and Topographic Survey

Poulsbo, OR (2019)

Planned and implemented a high-resolution MBES survey within the Port of Poulsbo Marina and surrounding waterway. Hydrographic survey at high tide was paired with high-resolution aerial photogrammetry survey at low tide collected via unmanned aerial vehicle. Final data products included ASCII XYZ dataset and combined hydro/topo DEM indicating elevations from upland to below docks.

Small Boat Marina High-resolution Hydrographic Survey

Hammond, OR (2018)

Planned, managed and implemented a high-resolution MBES survey within the Hammond Boat Basin (Hammond, OR). Surveys required detailed planning around wave environment, weather, tides, and river flow. Final data products included ASCII XYZ dataset and DEM indicating bottom elevations beneath docks/slips.

SELECT PUBLICATIONS

Jones, C. G. Chang, J. Magalen, and J. Roberts. "Validation of a Hydrodynamics and Sediment Transport Modeling Framework for the Evaluation of Offshore Wind Farms. Marine Technology Society Journal. Vol. 54. Number 6. November/December 2020.

Magalen, J.M., C.A. Jones, G.Chang-Spada and J.D. Roberts. "Estimating Sediment Mobilization Risk Resulting from WEC Array Installation." AGU Ocean Sciences.

J. Magalen, E. Garland, J. Wands, Sanford, L. P., and E. Naranjo. "Identification and Characterization of Sediment Erodibility and Physical Properties within Newark Bay, New Jersey". International Conference on Remediation and Management of Contaminated Sediments, New Orleans, Louisiana.

ATTACHMENT 2 – PROJECT EXPERIENCE

A Dock Replacement | Port of Anacortes

ANACORTES | WASHINGTON



M&N provided the Port of Anacortes with planning, engineering design, environmental review and permitting, bidding and award, and construction support services for their Cap Sante Marina A-Dock Replacement project. A-Dock is located on the south side of the marina and serves as the Port's primary commercial and excursion activities dock, supporting the local and regional maritime industry. The dock is also located adjacent to the Cap Sante Waterway, a federally authorized navigation channel. The dock was aging and nearing the end of its useful life, requiring replacement and upgrades. M&N

completed the final design for the dock upgrades and was supported by HPe who provided the electrical engineering. M&N supported the Port in completing a State Environmental Policy Act (SEPA) checklist and, to secure authorization for the proposed replacement layout, M&N worked with the U.S. Army Corps of Engineers (USACE), Seattle District's Navigation Department to assist the Port in completing Section 408 review for work that had the potential to encroach into a federal waterway.

The proposed float layout increased slip sizes to better accommodate the Port's primary commercial and excursion activities. The outcome included working with the Port and USACE to successfully complete the Section 408 review for the project. As the Port waited for the permitting process to be completed, M&N supported the Port with updates to construction cost estimates to support project budget planning.

The project is also a recipient of one of the 2022 ACEC Washington Engineering Excellence Award for the small projects category.

The Port of Anacortes selected M&N for its 2021 Customer Service Partner Award! This award is given each year to a Port Partner who provides extraordinary customer service to the Port or to another Port Partner. M&N received this award in recognition of our outstanding customer service supporting the design, permitting, and construction of the Port's A-Dock project.

Client Reference

Port of Anacortes

Jenkins Dossen

(360) 299-1814

Jenkins.dossen@portofanacortes.com

Fee

\$325,894

Duration

2015 to 2021

Breakwater Replacement | Elliott Bay Marina

SEATTLE | WASHINGTON



M&N provided inspection, preliminary design, design, permitting, and construction support services for the replacement of N-Dock. The existing floating breakwater structure is comprised of modular concrete floats and timber wave fences. The floating breakwater protects Elliott Bay Marina, a 1,200-slip marina located in the Magnolia neighborhood of Seattle.

M&N completed underwater pile inspection for the existing floating breakwater. While N-Dock is still functional, near-term major maintenance and increasing life-cycle maintenance costs warrant replacement of the existing breakwater system with a low maintenance breakwater system. Approximately 13,000 square feet of the existing concrete modular floating dock system and treated timber wave attenuator will be replaced with a concrete monolithic floating breakwater system. Improvements to the on-dock utilities will include upgrading fire and electrical power along both sides of the breakwater float system.

M&N was able to successfully permit for the replacement of the breakwater with an updated solid concrete floating breakwater structure. A Shoreline Enhancement Plan to replace shoreline invasive plants was developed by M&N in response to a request from the Washington Department of Fish & Wildlife to promote improvements to nearshore habitats.

Our solution included the development of the basis for design to be used by the float manufacturer including coastal engineering analysis and evaluation of the existing guide piles to be reused. The outcome included the complete design for the replacement of the existing concrete floating breakwater and upgrades to the electrical and fire water systems. Close coordination with the float manufacture was required to streamline development of the float details without impacting construction costs.



Client Reference

Elliott Bay Marina

Dwight Jones

(206) 285-4817

whitey@elliottbaymarina.net

Fee

\$286,382

Duration

2017 to 2020

North Marina Improvements – Guest Moorage / Bulkhead | City of Des Moines

DES MOINES | WASHINGTON

M&N led the City of Des Moines' multidisciplinary team to upgrade the guest moorage facilities and replace a portion of the failing timber marina bulkhead in 2009. M&N supervised all subconsultants and prepared concept through final design documents, incorporating elements from the marina master planning effort. The M&N team supported planning, SEPA and permitting, developed a successful mitigation package necessary to replace portions of the bulkhead wall waterward of the existing wall, obtained in-water permits, and provided final construction support services (CSS).



During Phase 1, the M&N team developed concept design for the improvements, including alternative layouts for the guest moorage area. During Phase 2, the M&N team completed design development and construction documents. Critical to the project was working with the resource agencies to develop a permitting strategy that would allow construction of the replacement wall waterward of the existing tied back wall in critical locations. Additional water area was created through the removal of the sling launch and relocation of the shoreline landward to offset the construction of the wall waterward. The added water area allowed for additional guest moorage facilities to be installed.

Improvements included: replacement of approximately 800 linear feet of the timber bulkhead wall; relocation of a travel lift pier; replacement of two existing gangways, including one ADA compliant gangway; raised sidewalk and landscaping for an improved waterfront promenade; reconfiguration of parking areas at the north end of the marina; upland lighting improvements; and utility improvements and/or relocations. The team also provided construction support services, construction administration, and assisted with contractor management and final acceptance walkthroughs.

Client Reference

City of Des Moines
Scott Wilkins
(206) 824-5700
SWilkins@desmoineswa.gov

Fee

\$672,000

Duration

2007 to 2009

Des Moines Marina Dock Replacements | City of Des Moines

DES MOINES | WASHINGTON

The City is evaluating options for replacement and upgrades to the marina located on Puget Sound in Des Moines, Washington. The project will be completed in two phases:

- Phase I – Long-range Marina Replacement Plan
- Phase II – Dock Replacement Design

M&N will support the City with planning, engineering and permit assistance, Phase I will assess the redevelopment of all the marina moorage. The financial and economic feasibility of the marina will include the development of a financial Pro forma for four marina replacement alternatives. The financial analysis takes into account demand, moorage rates, O&M expenses and capital costs.



As a part of Phase I, the M&N developed conceptual marina layouts that will be used in the economic feasibility analysis and the evaluation of permitting and mitigation needs. Recommendations for the float configurations and construction phasing would be used to develop final design documents in Phase II.

The M&N Team will complete the project design, construction plans, technical specifications and estimates of probable construction costs for the replacement of Phase I docks. Improvements will be focused to the in-water structures.

Client Reference

City of Des Moines
Scott Wilkins
(206) 824-5700
SWilkins@desmoineswa.gov

Fee

\$598,000

Duration

2021 to Current

Partial List of Supplemental Projects

Meydenbauer Bay Park Phase 1, Bellevue, WA – In water structures that included floating and fixed piers, swim float.

Docks P & Q Replacement, Port of Everett, Everett, WA - Replacement of Docks P and Q as part of a replacement program

Port of Friday Harbor Marina Reconstruction of Docks E, E and F, Friday Harbor, WA – Replacement of timber docks with a concrete float system

Repairs to O, P and Q Docks, Cap Sante Marina, Anacortes, WA – Repairs to concrete float system

San Francisco Marina, CA – Reconfiguration of marina docks

Alamitos Bay Marina Reconstruction, CA – Design/build for replacement of docks

***Port of Hood River launch floats, Hood River, OR**

***USCG Coos Bay Float, Coos Bay, OR**

***Port of Siuslaw Maple Street Dock, Siuslaw, OR**

***Gleason Park floats, Portland, OR**

***Sandy Beach Recreational Boat Docks, Government Island, OR**

***Rose City Yacht Club Main Float, Portland, OR**

* Projects completed by Marine Structures

ATTACHMENT 3 – REFERENCES

Port of Anacortes
Jenkins Dossen
(360) 299-1814
Jenkins.dossen@portofanacortes.com

City of Des Moines
Scott Wilkins
(206) 824-5700
SWilkins@desmoineswa.gov

Elliott Bay Marina
Dwight Jones
(206) 285-4817
whitey@elliottbaymarina.net

ATTACHMENT 4 –FEE DETAILS AND PROJECT SCHEDULE

Moffatt & Nichol Fee Proposal Detail

Depoe Bay Final Engineering and Construction Documents for docks #2, #3, and #4 & Pilings Replacement

January 14, 2022

Project Number: P213262




















Project Manager: Shane Phillips

Project Director: Bill Gerken

Subconsultant Markup: 10%

Other Direct Costs Markup:

I. STAFF-HOUR BUDGET			LABOR CLASSIFICATIONS & CONTRACT RATES																		
Phase	Task	Title	Principal Eng./Sci P-9, P-8	Supervisory Eng./Sci P-7	Senior Eng./Sci P-6	Eng./Sci III P-5	Eng./Sci II P-4	Eng./Sci I P-3	Staff Eng. P-1, P-2	Const Specialist/Diver T-4	Designer T-4	CADD II T-3	CADD I T-2, T-1	Project Controls A-4	Word Processor A-4, A-3	General Clerical A-1, A-2	STAFF-HOUR SUBTOTALS	LABOR COST SUBTOTALS			
			\$292.00	\$278.00	\$260.00	\$246.00	\$215.00	\$194.00	\$155.00	\$210.00	\$198.00	\$170.00	\$126.00	\$140.00	\$126.00	\$99.00					
1	1	Kick-off Meeting (in-person)	8.0			8.0											16.0	\$4,304.00			
	2	Recommendations for Design Refinements																			
	2.1	Basis of Design	1.0														1.0	\$292.00			
	2.2	Design Refinements	1.0														1.0	\$292.00			
	2.3	City Staff Briefing (in-person)	12.0														12.0	\$3,504.00			
	3	Update Design Concept																			
	3.1	Plan updates	2.0		4.0												6.0	\$1,624.00			
	3.2	Concurrence/Public Meeting (via Zoom)	4.0														4.0	\$1,168.00			
	4	Maintenance/Replacement Schedule and Life Cycle Cost	1.0			24.0											25.0	\$6,196.00			
	5	60% Design Documents																			
	5.1	Plans	2.0			60.0				180.0	180.0						242.0	\$50,984.00			
	5.2	Technical Specifications	2.0			20.0								8.0		8.0	30.0	\$6,296.00			
	5.3	Estimate of Construction Costs	1.0			40.0											41.0	\$10,132.00			
	6	Enviromental Permits					4.0		16.0								20.0	\$3,340.00			
	6.1	BE					4.0		40.0				16.0	4.0		4.0	64.0	\$9,472.00			
	6.2	USACE - JPA					2.0		32.0				8.0	4.0		4.0	46.0	\$6,794.00			
	6.3	Local					2.0		24.0				2.0	2.0		2.0	30.0	\$4,600.00			
	6.4	Agency Coordination					4.0		40.0								44.0	\$7,060.00			
	7	100% Design Documents																			
	7.1	Plans	2.0			40.0											42.0	\$10,424.00			
	7.2	Technical Specifications	2.0			12.0								8.0		8.0	22.0	\$4,328.00			
	7.3	Estimate of Construction Costs	2.0			8.0											10.0	\$2,552.00			
	7.4	City Staff Meeting (via Zoom)	4.0														4.0	\$1,168.00			
	7.5	City Council Meeting (via Zoom)	4.0														4.0	\$1,168.00			
	8	Request for Bids	1.0			4.0											5.0	\$1,276.00			
	9	Bid Assistance	4.0			4.0											8.0	\$2,152.00			
I. TOTAL STAFF HOURS			53.0		4.0	220.0	16.0		152.0	180.0	180.0		26.0	26.0		26.0	677.0				
II. M&N LABOR COST			\$15,476.00		\$1,040.00	\$54,120.00	\$3,440.00		\$23,560.00	\$35,640.00	\$35,640.00		\$3,276.00	\$2,574.00		\$2,574.00		\$139,126.00			
III. SUBCONSULTANT COSTS			Cost	Markup	Cost Subtotal	IV. OTHER DIRECT COSTS													Cost	Markup	Cost Subtotal
1	Solmar Hydro (surveying)		\$9,500.00	\$950.00	\$10,450.00	Airfare														N/A	
2	GRI Geotechnical		\$36,200.00	\$3,620.00	\$39,820.00	Lodging													\$300.00	N/A	\$300.00
3	Harbor Power		\$29,490.00	\$2,949.00	\$32,439.00	Meals													\$250.00	N/A	\$250.00
4	Marine Structures Engr		\$62,300.00	\$6,230.00	\$68,530.00	Mileage/Rental Car													\$954.00	N/A	\$954.00
5						Outside Reproduction															
6						Postage/Delivery															
7						Telephone/Fax															
8						I&R/Diving Equipment														N/A	
9						Other:															
10						Other:															
Subconsultants Totals:			\$137,490.00	\$13,749.00	\$151,239.00	Other Direct Costs Totals:													\$1,504.00		\$1,504.00

ID		Number	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Notes	February 1/30 2/6 2/13 2/20 2/27	March 3/6 3/13 3/20 3/27	April 4/3 4/10 4/17 4/24	May 5/1 5/8 5/15 5/22 5/29	June 6/5 6/12 6/19 6/26	July 7/3 7/10 7/17 7/24 7/31	August 8/7 8/14 8/21 8/28	September 9/4 9/11 9/18 9/25	October 10/2 10/9 10/16 10/23 10/30	No
1		0		Notice to Proceed	1 day?	Tue 2/1/22	Tue 2/1/22												
2		1		Kick Off Meeting	1 day?	Wed 2/9/22	Wed 2/9/22	1FS+5 days											
3		2		Design Recommendations	10 days	Thu 2/10/22	Wed 2/23/22	2											
4		2		Survey	20 days	Thu 2/10/22	Wed 3/9/22	2											
5		2		Public Meeting No. 1	1 day	Thu 2/24/22	Thu 2/24/22	3											
6		3		Update Design	15 days	Fri 2/25/22	Thu 3/17/22	5											
7		3		Receive City Concurrence	10 days	Fri 3/18/22	Thu 3/31/22	6											
8		4		Maintenance/Replace Schedule and Costs	15 days	Fri 4/1/22	Thu 4/21/22	7											
9		5		60% Design	45 days	Fri 4/1/22	Thu 6/2/22												
10		5.1		Float Plans	25 days	Fri 4/1/22	Thu 5/5/22	7,4											
11		5.2		Technical specifications	10 days	Fri 4/15/22	Thu 4/28/22	10SS+10 days											
12		5.3		Opinion of Construction Costs	10 days	Fri 5/6/22	Thu 5/19/22	10											
13		5.4		60% Design Submittal to City	0 days	Thu 5/19/22	Thu 5/19/22	12											
14		5.5		City review of 60% Design Submittal	10 days	Fri 5/20/22	Thu 6/2/22	13											
15		6		Environ Documentation	55 days	Fri 4/29/22	Thu 7/14/22												
16		6.1		Coordination with Agencies	10 days	Fri 4/29/22	Thu 5/12/22	9SS+20 days											
17		6.2		Permit Application	20 days	Fri 6/3/22	Thu 6/30/22	16,14											

Project: P213262 Depoe Bay
Date: Wed 1/12/22

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

External Tasks

External Milestone

Deadline

Progress

Manual Progress

Page 1

ID		Number	Task Mode	Task Name	Duration	Start	Finish	Predecessors	Notes																														
18		6.3		Submit Draft Permit Applications to	0 days	Thu 6/30/22	Thu 6/30/22	17																															
19		6.4		City review of Draft Permit Applications	10 days	Fri 7/1/22	Thu 7/14/22	18																															
20		6.5		Submit Final Permit Applications	0 days	Thu 7/14/22	Thu 7/14/22	19																															
21		7		100% Final Design	16 days?	Fri 6/3/22	Fri 6/24/22																																
22		7.1		Float Plans	15 days	Fri 6/3/22	Thu 6/23/22	14																															
23		7.2		Technical specifications	10 days	Fri 6/10/22	Thu 6/23/22	22SS+5 days																															
24		7.3		Opinion of Construction Costs	1 day?	Fri 6/24/22	Fri 6/24/22	22																															
25		7.4		100% Final Design Submittal to City	1 day?	Mon 6/27/22	Mon 6/27/22	22,24,23																															
26		8		City Council Mtg for 100% Final Design	5 days	Tue 6/28/22	Mon 7/4/22	25																															
27		9		Request for Bids	15 days	Tue 7/5/22	Mon 7/25/22																																
28		0		Submit Draft RFB	5 days	Tue 7/5/22	Mon 7/11/22	26																															
29		0		City review of RFB	5 days	Tue 7/12/22	Mon 7/18/22	28																															
30		0		Finalize RFB	5 days	Tue 7/19/22	Mon 7/25/22	29																															
31		10		Bid Support	35 days	Tue 8/16/22	Mon 10/3/22																																
32		10.1		RFI	30 days	Tue 8/16/22	Mon 9/26/22	30FS+15 days	Assume Advertise co																														
33		10.2		Assist with Evaluation of Bids	5 days	Tue 9/27/22	Mon 10/3/22	32																															
Project: P213262 Depoe Bay Date: Wed 1/12/22				<div><div>Task</div><div>Split</div><div>Milestone</div><div>Summary</div></div> <div><div><div></div><div></div><div>◆</div><div></div></div><div><div></div><div></div><div>◆</div><div></div></div></div> <div><div>Project Summary</div><div>Inactive Task</div><div>Inactive Milestone</div><div>Inactive Summary</div></div> <div><div><div></div><div></div><div>◆</div><div></div></div><div><div></div><div></div><div>◆</div><div></div></div></div> <div><div>Manual Task</div><div>Duration-only</div><div>Manual Summary Rollup</div><div>Manual Summary</div></div> <div><div><div></div><div></div><div>◆</div><div></div></div><div><div></div><div></div><div>◆</div><div></div></div></div> <div><div>Start-only</div><div>Finish-only</div><div>External Tasks</div><div>External Milestone</div></div> <div><div><div></div><div></div><div>◆</div><div></div></div><div><div></div><div></div><div>◆</div><div></div></div></div> <div><div>Deadline</div><div>Progress</div><div>Manual Progress</div></div> <div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div>																																			
Page 2																																							



moffatt & nichol

moffattnichol.com

Contact:

Moffatt & Nichol
600 University Street, Suite 610
Seattle, WA 98101
P: (206) 622-0222

**City of Depoe Bay, Oregon RFP Response:
Final Engineering and Construction Documents for Docks #2, #3, and #4 and Pilings Replacement**

January 14, 2022

Dear Mr. Weidner:

PND Engineers is pleased to submit our Statement of Qualifications to the City of Depoe Bay for Final Engineering and Construction Documents for Docks #2, #3, and #4 and Pilings Replacement. PND Engineers, Inc., (PND) has over 41 years of marine design experience in the Pacific Northwest and Alaska in all areas of marine, structural, civil, coastal, and geotechnical engineering.

We have extensive experience in the design of marine facilities, including docks, piers, wharfs, dolphins, bulkheads, fendering systems, floats, and wave barriers. Our engineers are skilled in all areas of marine and upland engineering, including civil, structural, coastal, and geotechnical engineering. PND also provides condition inspection, permitting, planning, grant funding assistance, bid support, and construction administration. Our marine design projects have included port facilities, marine terminals, boatyards, small cruise ship facilities, marinas, and boat launches. Particularly applicable are the recent Port of Alsea Marina Replacement and the Port of Everett's Central Marina Floats. Both projects are detailed in this proposal.

Thank you for this opportunity to share our qualifications for your Final Engineering and Construction Documents for Docks #2, #3, and #4 and Pilings Replacement project.

1. SUMMARY OF SERVICES

a. DESCRIPTION OF SERVICES

The following is a summary of the description of services that PND proposes to perform for the City of Depoe Bay on the Docks #2, #3, and #4 Float and Piling Replacement project.

Task #1: Project Kick-off Meeting

A PND Principal or Project Manager will schedule and attend a project kick off meeting with the City staff, Harbor Restoration Steering Committee, and additional stakeholders as selected by the City. This provides us a better understanding of the project development to date, local conditions, constraints, and concerns as well as allowing initial feedback on cost effective solutions based on the options developed in 2015. PND will provide meeting minutes based on the Project Kick-off Meeting.

Task #2: Report of Recommendations to Conceptual Design

PND will provide a report of recommendations on the conceptual design based on maintenance, cost, strength of the system, ADA requirements, permitting constraints, adaptability to modifications, and tsunami resilience.



Task #3: Updated Conceptual Design

PND will provide an updated design to the City staff and Harbor Restoration Steering Committee based on the agreed upon recommendations (equivalent to a 30 percent design).

Task #4: Updated Cost and Life Cycle Cost Estimate

Our team will provide a repair and maintenance schedule along with the anticipated costs for replacement over the life of the facility.

Task #5: Develop 60% Design and Cost Estimate

PND will develop the 60% design drawings for the floats, piles, gangways, and utilities for the project along with a 60% level cost estimate.

Task #6: Permit Coordination

Our Team will coordinate with local, state, and federal agencies to identify limiting project constraints based on the 60% design and develop the permit documents for submission to the permitting agencies.

Task #7: Pre-Final Plans, Specifications, and Cost Estimate

PND will develop the design and cost estimate for review by the City staff, Harbor Restoration Steering Committee, and Stakeholders.

Task #8: Pre-Final Design Review Comment Coordination

Review and respond in writing to comments from the City, Harbor Restoration Steering Committee, and Stakeholders. PND's Principal or Project Manager would be available by Zoom to address questions on the Pre-Final Design.

Task #9: Develop bid-ready documents for Construction Bids

PND will finalize/stamp the final design package and provide bid ready document to the City for construction advertisement.

Task #10: Construction Bid Services

PND will provide construction bid services including answering bid requests for information and evaluating and making a recommendation on the construction bid award.

b. COSTS OF TASKS

PND's cost for engineering for the City of Depoe Bay has been developed from the request for proposals for concept engineering for docks 2, 3, and 4. The scope of this work includes meetings and coordination with city staff, development of concepts for replacement of docks, and a final meeting/presentation to the Depoe Bay City Council and Depoe Bay Urban Renewal Agency. Based on our understanding of the scope, the cost of the tasks are as follows:



TABLE 1: SUMMARY OF TASKS, TASK COMPLETION SCHEDULE, AND COSTS

TASK #	SUMMARY	ANTICIPATED COMPLETION DATE	COST
1	Kick-off Meeting, In-Person Meeting	February 9th, 2022	\$4,753.00
2	Recommendations / with Narrative, In-Person Meeting	February 28th, 2022	\$8,820.00
3	Provide Updated Design (30% Level) for Concurrence-Public Meeting (Zoom)	April 15th, 2022	\$46,000.00
4	Anticipated Maintenance Schedule & Costs	April 29th, 2022	\$3,785.00
5	60% Design	May 31st, 2022	\$51,375.00
6	Prepare Permits for Submittal	July 30th, 2022	\$24,740.00
7	Pre-Final 100% Design, Specifications, and Cost Estimate	June 30th, 2022	\$42,075.00
8	Prepare RFB for City Distribution	July 30th, 2022	\$8,285.00
9	Assist with Review of Bids	Fall 2022	\$10,585.00
		TOTAL	\$200,418.00

2. COST OF DIRECT EXPENSES

Attachment 1 includes a breakdown of direct expense and hours by individuals associated with the ten tasks outlined above. This costs are fully burdened and include all travel anticipated for the work.

3. PROJECT SCHEDULE

PND has developed the Gantt chart schedule on the following page to show the project anticipated milestones and dependencies from Project Kickoff through completion of final design and development for permitting documentation.



DOCKS 2, 3, AND 4 FLOAT AND PILING REPLACEMENT PROJECT	2022												2023										
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Task Description																							
Submit RFP for Docks 2, 3, and 4 Design	◆																						
Anticipated Project Award		◆																					
Task #1: Project Kickoff Meeting with City Staff, Harbor Restoration Steering Committee, and Stakehold-		◆																					
Task #2: Written Report on Recommendations to Existing Design			■																				
City Review of Recommendations				■																			
Task #3: Redevelop Design (30% Design) Based on Feedback from the City				■																			
Task #4: Provide Anticipated Maintenance and Replacement Schedule with Estimated Costs					■																		
Task #5: 60% Design Development						■																	
City Review of 60% Design							■																
Task #6: Identify Environmental Documentation and Prepare Permit Documents for Submittal							■	■															
Task #7: Pre-Final Plans, Specifications, and Cost Estimate							■																
City Review of Pre Final Design								■															
Task #8: Prepare Request for Bid Documents Based on Stamped Final Plans								■															
Task #9: Assist with Review of Bids (To Be Determined)									■	■	■	■	■	■	■	■	■	■	■				
Agency Review and Permit									■	■	■	■	■	■	■	■	■	■	■				
In-Water Work Window(s)								■	■	■									■	■	■		

4. CAPACITY AND CAPABILITY OF FIRM TO PERFORM THE WORK

PND has provided marine structural design services to the small coastal communities in Oregon since the 1990s, including the City of Depoe Bay, the Port of Astoria, the Port of Toledo, the Port of Newport, the Port of Alsea, the City of Florence, the Port of Bandon, and Port Orford. We understand that listening and understanding the needs and constraints of our clients and their stakeholders on the coast is crucial to developing a successful plan to develop projects on time and on budget.

PND is very experienced with design in the marine, coastal environment and will provide a dedicated staff to develop easy pedestrian and vessel access while reducing the project's impacts on the sensitive marine environment. We also understand the severe nature and impact of the coastal environment on docks, piles, floats, utilities, and other structures. We will develop the design with consideration of both the near-term capital costs and also the long-term maintenance costs and time associated keeping the docks and utilities at their peak service capability. Our Team's experience will help the City's staff evaluate options early in the design process and eliminate concepts and designs that are undesirable or infeasible.

This RFP is developed with the assumption that no federal funding is involved in the Replacement of Docks 2, 3, and 4 and no additional dredging design is required. These elements will further complicate the anticipated design and permitting effort and will increase the fee and lengthen the schedule associated with the work. The PND Team also assumes that the City will be the lead agency in coordination with the local, state, and federal permitting agencies. Our Team is capable of providing this coordination on a time and expenses basis in addition to Tasks #1-#9 outlined above. Additionally, construction support can be provided by PND on a time and expenses basis.

The PND Team will rely on the site information developed by the City in previous studies. PND assumes the City has sufficient bathymetry, geotechnical, and survey information to develop the design for the Docks.

SPECIALIZED SERVICES

Project Management | Marine Structural Design | Civil & Structural Engineering | Cost Estimating | Permitting

PND has special expertise in waterfront design, with extensive experience in the design of marina facilities, including ADA-accessible docks, floats, piers, gangways, bulkheads, boat lifts, and boat launches. Our design services also include pile replacement, breakwaters, dolphins, and fendering systems. We have over 110 employees, nearly half of whom are licensed engineers or surveyors. We offer a broad range of engineering services, including civil, structural, marine, coastal, and geotechnical engineering, as well as construction engineering, construction support, hydrology, surveying, contract administration, and planning. PND also provides environmental studies, permitting and bid assistance, cost estimation, and inspection services.



OUR SPECIALIZED EXPERIENCE INCLUDES THE FOLLOWING:



Marina Design

PND has extensive experience with marinas, from planning and full design to performance specifying components. Projects include ADA-accessible floats, floating docks, approach docks, and gangways, as well as boat lifts, boat launches, breakwaters, pile replacement, and fender and mooring systems. PND also provides design, fabrication and construction inspection, and performance specifications for all types of float systems. Our planning services include conceptual design alternatives, preliminary design, and cost estimates for in-water components. We also provide site civil planning for upland facilities, including preliminary phasing schedules and cost estimates.



Float Systems Design

PND provides planning, design, fabrication, and construction inspection for marina and boat launch facilities, including performance specifications for all types of float systems. Our clients rely on our experience in a wide variety of climate and site-specific conditions to assist them with the selection of suitable materials that perform well for their unique facilities. PND has designed float types that include polytub timber floats, modular and monolithic concrete floats and heavy glulam; modular steel or HDPE pipe floats; and covered moorage systems.



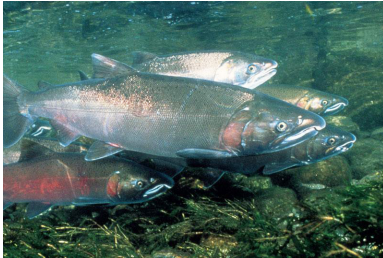
Civil Design and Utilities

PND provides civil and utility infrastructure engineering design for marinas, ferry terminals, ports, and waterfront recreational facilities. Recent projects include floats, boat launches, docks, access roads, and shoreline enhancement. PND designs utilities for docks and floats, including fire standpipes, domestic water service, and fire alarm stations. We also provide upland design for water systems, storm water treatment and conveyance, utilities, site grading, walkways, parking, vault toilets and restrooms, fish cleaning stations, pump stations, and septic sewer systems.



Marine Structural Design

PND has extensive marine structural engineering experience with fixed-pier structures, floating docks, dolphins, bulkheads, wharfs, fendering systems, and piling. Our marine design projects have included ferry terminals, state-of-the-art cruise ship facilities, and industrial marine terminals. We offer innovative waterfront design solutions and products, including SPIN FIN™ piles for poor foundations and the OPEN CELL SHEET PILE™ bulkhead. Utilizing novel foundation systems, PND has developed docks, piers, and trestles with load capacities far greater than conventional designs.



Environmental Documentation and Permitting—Oregon

PND's dedicated permit staff have extensive water-related project experience, enabling them to provide permitting services on any project, whether in marine or fresh waters. We are proficient in the preparation of permit drawings and applications, submittal procedures, and responding to review comments. This knowledge allows us to respond to any level of permit support a project requires, from permit drawings only to preparation of the overall package. We have excellent understanding of the processes of the many permitting agencies, including the Army Corps of Engineers, Oregon Department of State Lands, Oregon Department of Land Conservation and Development, and Oregon Department of Environmental Quality.



Cost Estimating and Constructability Review

PND provides specialized technical expertise in construction estimating and constructability review for waterfront projects such as docks, piling, seawalls, and bridges. We verify that a project can be constructed according to design assumptions, the intent of the contract documents, and within cost and schedule guidelines. PND details any issues contractors must be aware of during construction that will impact costs such as difficult access and wave action under docks. PND also develops effective structural solutions that decrease cost and streamline work sequences and phasing to maintain essential functions during construction.



Public Involvement

PND has executed numerous successful public projects involving complex issues and the diverse interests of multiple stakeholders and user groups. Our experience shows that early and ongoing community and stakeholder involvement fosters the open communication and collaboration critical to successful project designs. We will customize our community outreach and public involvement strategies to best respond to the specific needs and dynamics of the local community. Our public involvement expertise includes preparing public presentations; facilitating open house events; preparing large-scale visual aids; and meeting with project stakeholders, members of the public, business owners, and agency personnel.



Construction Management and Inspection

PND provides on-site inspection and construction administration services necessary to ensure that clients receive the high-quality construction envisioned in the design. We utilize our experience and our well-trained engineers and technicians, state-of-the-art equipment, and the latest technology to document construction; update project schedules; identify deficiencies and get direction for corrections; communicate with designers, clients, and owners; and maintain records during construction.

ADDENDUM 1: KEY PERSONNEL

RIAN JOHNSON, P.E. | PRINCIPAL | SENIOR ENGINEER

PROJECT ROLE: Principal-in-Charge & Lead Structural Engineer



Mr. Johnson is a structural engineer and vice president at PND with 20 years of experience specializing in marine construction, design, engineering, and administration. His recent work includes project management, on-site construction administration, marine facility design, and deep foundations analysis. Specialized skills include structural analysis and design, weld and pile driving inspection, and contract administration. He has worked on all aspects of engineering for ports, harbors, marine facilities, bridges, roadways, utilities, and temporary works projects. Mr. Johnson's recent projects have given him extensive working knowledge of applicable design and construction codes, including PIANC, AASHTO, ASCE, and USACE design guidelines.

EDUCATION

M.S., Civil Eng.,
Stanford University,
2008

B.S. Civil Eng.,
University of WA,
2001

REGISTRATION

P.E. OR, 94651
P.E., S.E. WA, 42785
P.E., S.E. AK, 141129
P.E., S.E. CA,
C 87081, S 6598
P.E. CT, 0034814
P.E. FL, 83553
P.E. GA, 041915
P.E. LA, 40097
S.E. MA, 54352
P.E. NC, 051427
P.Eng. BC, 201867

CERTIFICATION

US GBC LEED
Certified, 2008

SELECTED RELEVANT PROJECT EXPERIENCE

Oregon Yacht Club Marina Piling Assessment, Portland, OR. Principal-in-Charge.

Led an assessment to evaluate the existing condition and strength of the marina piles to support current usage. PND performed a desktop study that evaluated a previous dive inspection report, historic river elevations and currents at the site, and the available plans for the floats and floating homes. PND provided the maximum loading and loading conditions that the piles can support, as well as the estimated remaining design life of the piles.

Bandon Marina Redevelopment Design, Bandon, OR. Principal-in-Charge. Led design development to the Port of Bandon for upgrades to the 84-slip Bandon Marina, which was built in 1984 and has reached the end of its useful life. PND designed a new layout to replace the marina with new docks, piles, and utilities. Work included concept development, 30% design, and JARPA permit drawings. PND also performed a desktop evaluation of site geotechnical conditions and developed a pile analysis. Design development was completed in October 2021, including CAD graphics to support a grant application.

Bandon Fishing Pier, Bandon, OR. Principal-in-Charge. Led design of an ADA-accessible fishing pier for the Port of Bandon. The fishing pier will be 130 feet long and 12 feet wide, with light-emitting grating and a reinforced concrete foundation. The pier will be located on existing rubble mound breakwaters. PND developed the design with input from the Port and USACE. PND completed final design and bid documents for the project in 2020 and is currently providing construction support.

Port of Bandon Condition Assessment, Bandon, OR. Principal-in-Charge. Led a condition assessment of the piles at the Port of Bandon in 2018, including the marina, Coast Guard Pier, boat launch, and Sports Basin Wave Attenuator. The condition assessment was conducted at a low tide to observe the exposed surface of the piles above the water line. PND evaluated the piles of these structures and made recommendations for repair or replacement.

12th Street Marina Development, Everett, WA. Project Engineer. Provided structural design and analysis for the City of Everett's 37,000-square-foot pedestrian esplanade walkway. The esplanade was a part of mixed-use waterfront development for the 12th Street Marina. Elements of the structural analysis included seismic modeling and slope stability checks. The design work followed AASHTO bridge design specifications and standards.

La Conner Marina G-Float Replacement, La Conner, WA. Resident Engineer/Field Inspector. Reviewed project submittals, change orders, and payment requests, and provided fabrication and on-site field inspection for the 800-foot float replacement. Work included pile driving and utility installation. Also inspected both upland and in-water utilities, including sewer, water, and electrical.

JOHN D. OLSON, P.E. | SENIOR ENGINEER

PROJECT ROLE: Project Manager



John Olson will be responsible for managing the project team and ensuring contract scope, schedule, and cost adhere to quality control standards. He's led marine engineering services to Oregon including the Depoe Bay Harbor Master Plan. John is a civil engineer with 25 years of experience in project management, field inspection, contract administration, fabrication inspection, structural design, and hydraulic engineering services. He has provided project management, design, and construction inspections for numerous dolphins, wingwalls, bulkheads, wave barriers, docks, and piers for ferry and cruise terminal projects in the Pacific Northwest and Alaska.

EDUCATION

B.S. Civil
Engineering, 1996,
Washington
State University

REGISTRATION

Professional
Civil Engineer:
Washington # 37918,
2001

CERTIFICATION

Certified Welding
Inspector (CWI),
American
Welding Society

OSHA 40 Hour
HAZWOPER Training,
2013

SELECTED RELEVANT PROJECT EXPERIENCE

Depoe Bay Harbor Master Plan, Depoe Bay, OR. Project Manager. Leading concept development and cost estimating for the comprehensive Depoe Bay Harbor Master Plan. The plan entails upland improvements and rehabilitation of existing waterfront facilities, including the wharf pier, fuel dock, and boat launch ramp. The master plan also seeks to improve public vessel access to the harbor by providing grant-eligible transient moorage slips. PND is assisting in identifying possible grant funding opportunities.

Port of Siuslaw Old Town Wharf, Florence, OR. Design Engineer. Provided on-site construction support services for the rehabilitation of a 22,000-square-foot, pile-supported wooden wharf structure. PND led planning, concept development, condition assessment, design, and permitting for the project, which was completed in 2013. The design provided rehabilitation of the wharf structure (piles, caps, stringers, deck, etc.) while maintaining the existing footprint and addressing immediate and long-term structural issues.

Weyerhaeuser (CEDCO) Wharf Condition Assessment, Coos Bay, OR. Project Engineer. Provided engineering for condition assessment and concept options for improvement of the CEDCO Wharf (formerly the old Weyerhaeuser facility) at the International Port of Coos Bay. Assisted with recommendations to the Port on options for future use of the wharf, ranging from repairs and upgrades to replacement of the entire facility.

Port of Kalama Marina Repairs & Improvements, Kalama, WA. Project Manager. Led engineering for repairs and improvements to moorage houses, replacement and expansion of the boat launch floats, and replacement of the marginal float and a transient moorage float, completed in 2018. PND also performed a metocean study to define the environmental design criteria. In addition, PND provided design, permitting, and construction support for the new T-Barge facility, which included a pier, drive-down ramp, and permanent barge, completed in 2020.

Annapolis Ferry Dock Upgrade Final Design, Port Orchard, WA. Project Manager. Led design, permitting, and construction support services to Kitsap Transit for upgrades to the existing dock. The new float is larger, has greater freeboard, and is located in deeper water. The short gangway was replaced with a 120-foot-long aluminum, open-truss gangway. The final 100 feet of fixed pier was removed and replaced with a 50-foot-long segment, allowing for the longer gangway.

CHRIS J. FORNACE, P.E. | SENIOR CIVIL ENGINEER

PROJECT ROLE: Structural Design



Chris Fornace will be responsible for engineering plans, specifications, and construction cost estimates for the marine structures. With 9 years of experience in civil and structural design, Chris is experienced with pile-supported structures, cellular sheet pile structures, fender systems, braced excavations, pedestrian access, and bridges. His marine design projects have included marinas, cruise facilities, marine terminals, and waterfront recreation facilities. He has performed condition assessments at marinas and marine facilities, including piling, floats, docks, piers, and boathouses. Chris also has experience providing field engineering services for cellular sheet pile and pile-supported structures during construction.

EDUCATION

B.S. Architectural Engineering, 2012, Drexel University

M.S. Civil Engineering, 2012, Drexel University

REGISTRATION

Professional Civil Engineer: Washington # 53192, 2015

CERTIFICATION

AWS: QC1 - Associate Welding Inspector

SELECTED RELEVANT PROJECT EXPERIENCE

Port of Alsea Marina Replacement, Waldport, OR. Project Manager. Led engineering design services to Bergerson Construction for replacement of the Port of Alsea Marina. The existing 34-year-old marina was demolished, and new docks were built that extend 40 feet farther out into Alsea Bay. The new marina includes 38 boat slips, short- and long-term tie-ups, walkways, and a gangway. The old fishing and crabbing pier and float were replaced with a new 30-foot by 24-foot platform and a 150-foot by 10-foot floating dock with a gangway. Construction was completed in April 2021.

Port Orchard Marina Breakwater Replacement, Port Orchard, WA. Structural Designer. Providing structural design services to the Port of Bremerton for replacement of the north and east breakwaters at the Port Orchard Marina. The 46-year-old breakwaters have a combined length of 1,500 feet. PND's services include project management, coastal engineering, preliminary design, permit coordination, Biological Assessment, final design, bid support, and construction administration.

Port of Kalama Marina Condition Assessment and Improvements, Kalama, WA. Project Engineer. Provided structural design for repairs and improvements to the Kalama Marina. The project includes open and covered moorage houses, replacement and expansion of the boat launch floats, replacement of the marginal float and a transient moorage float, and a feasibility study for a new visitor dock. The project was completed in 2018.

Gene Coulon Memorial Beach Park Marine Facilities Repair Design, Renton, WA. Design Engineer/Field Engineer. Provided structural design for repair of eight marine structures in Gene Coulon Memorial Beach Park for the City of Renton. The facilities include Boat Launch Wave Break; Ivar's Outdoor Deck; Transient Float; Boat Launch Pier; South Waterwalk; Sailing Club Floats; and Trestle Bridge. PND also provided bid assistance and construction supervision. The repairs were completed in December 2019.

Anchor Cove Marina Condition Assessment and Repairs, Anacortes, WA. Project Manager Leading dock pile repair design for the Anchor Cove Marina. PND initially evaluated the above-water elements of the marina docks, including piles, pile hoops, float systems, and roof structure, and also provided an overview of the above-water portions of the breakwaters. PND is leading permitting, design, and construction support for pile replacement and pile hoop repair for 18 piles identified in the assessment.

CHRISTOPHER WIEST, P.E. | SENIOR CIVIL ENGINEER

PROJECT ROLE: Civil Engineering Lead



Mr. Wiest is a senior civil engineer with 17 years of experience in engineering and project management for waterfront projects, upland site development, fish passage design, hydrologic/ hydraulic studies, geotechnical investigations, and road and bridge design. He has specialized skills in computer stormwater hydrologic modeling, regional hydraulic modeling, stormwater treatment system design, geotechnical analysis, and project site grading. His work includes planning, permitting, and design of access roads and utilities, including reinforced concrete structures; sanitary sewer and storm sewer utility layout; pump stations and force mains; water supply; and fish passage culverts.

EDUCATION

B.S. Civil
Engineering, 2004
Gonzaga University

REGISTRATION

Professional
Civil Engineer:
Washington
47047, 2010

SELECTED RELEVANT PROJECT EXPERIENCE

Port of Alsea Marina Replacement, Waldport, OR. Civil Engineer. Provided civil engineering services for waterline extension and water system design for replacement of the Port of Alsea Marina. The existing 34-year-old marina was demolished, and new docks were built that extend 40 feet farther out into Alsea Bay. The new marina includes 38 boat slips, short- and long-term tie-ups, walkways, and a gangway. The old fishing and crabbing pier and float were replaced with a new 30-foot by 24-foot platform and a 150-foot by 10-foot floating dock with a gangway. Construction was completed in April 2021.

Foss Maritime Portland Site Repairs, Portland, OR. Project Manager. Leading engineering design for riverbank stabilization and replacement of the tug terminal floats at the Foss Maritime facility on the Willamette River. The Foss terminal is at risk of damage due to river bank erosion caused by a combination of highwater elevations in the Willamette River and the failure of a stormwater culvert outfall. Mr. Wiest is also leading design modifications to the floating docks at the tug terminal, which include permanently removing some floats and piles and replacing deteriorated floats with upgraded floats and new anchor piles. The project includes float modifications to the Access Dock, West Dock, North Dock, and South Dock.

Central Marina Floats, Fisherman's Harbor – Waterfront Place Central, Everett, WA. Project Manager. Led design of new floats with anchor piles, utilities, and gangway, completed in 2019. The float project at Fisherman's Harbor is part of planning, design, and construction support for public infrastructure for a 65-acre mixed-use development at the Port of Everett.

La Conner Marina South Basin Floats A-D Rehabilitation, La Conner, WA. Design Engineer. Provided civil engineering design for rehabilitation of floats A-D. Work included a near-term maintenance plan and design of float roof repairs, float repairs, and utility/ electrical repairs or upgrades. Construction was completed in 2015.

La Conner Marina Master Plan Update, La Conner, WA. Project Manager. Led an update to the master plan for the in-water and upland elements of the La Conner Marina facility for the Port of Skagit. The marina consists of two boat basins with linear guest moorage docks and covered and open permanent moorage areas. Upland businesses include vessel manufacturing, boat yard, dry storage, overhead rail launch, boat sales, and service, an RV Park and storage facilities. Changes to the master plan included a preliminary site plan and phasing plan for the proposed marina redevelopment and cost estimates.

CHASE CASTONA P.E. | SENIOR CIVIL ENGINEER

PROJECT ROLE: Civil Engineering



Mr. Castona has 5 years of professional experience providing civil engineering for design of marinas, ports, parks, and waterfront recreation facilities. His projects have included civil design for upland facilities such as walkways, trails, roads, utilities, storm water detention, drainage, and parking. Mr. Castona's experience also includes shoreline stabilization and enhancement at waterfront parks. His park projects have included civil design elements such as ADA-accessible walkways, plazas, picnic areas, hardscape, campsites, trails, access roads, building pads, and parking facilities. He also provides fabrication inspection and construction support for upland facilities, including construction inspection and field engineering.

EDUCATION

B.S. Civil
Engineering, 2015,
Gonzaga University

REGISTRATION

Professional Civil
Engineer:
Washington
#57983, 2019
Oregon #95067PE,
2019

CERTIFICATION

Certified Welding
Inspector (CWI),
American Welding
Society, 201x

SELECTED RELEVANT PROJECT EXPERIENCE

Kalama Marina Assessment and Repairs, Civil Engineer. Provided design and construction support for a new boat launch boarding float, extension of the launch ramp, and expansion of the floating moorage. PND provided permitting support, final design documents, and bid support for the project, completed in June 2018.

City Dock Improvements, Bainbridge Island, WA. Civil Engineer. Provided engineering design and construction support for dock replacement and extension of the boat ramp, including replacement of the boat launch boarding floats and existing piles and expansion of the floating moorage.

Evergreen Park Boat Launch, Bremerton, WA. Civil Engineer. Provided engineering and for rehabilitation of the Evergreen Park Boat Ramp facility for the Port of Bremerton. The project rehabilitated all in-water elements, including the concrete ramps, courtesy floats and piles, bringing the facility up to current standards for public boating facilities.

Boat Haven Boat Launch, Port of Port Angeles, WA. Civil Engineer. Provided civil engineering and construction support for upgrades and repairs to the boat launch to provide wider boat access, pedestrian access to the floats, new float piles, and a stable resting foundation for the floats.

Ancich Waterfront Park Improvements and Pier Replacement, Gig Harbor, WA. Civil Engineer. Provided civil design and construction support to the City of Gig Harbor for park development that included new walkways, re-grading, hardscaping, stormwater drainage, concrete bulkheads, and pier replacement.

Pacific Rim Plaza at Fisherman's Harbor, Everett, WA. Civil Engineer. Provided civil design and construction support to the Port of Everett for a new concrete plaza with walkways, concrete and wood benches, and a fountain, as well as the Fisherman's Harbor Development project.

Kopachuk State Park Day Use Area, Kitsap Peninsula, WA. Civil Engineer. Providing civil design to Washington State Parks for utilities, stormwater treatment and conveyance, a parking lot, and building pads.

Lincoln Landing Street Park, Mercer Island, WA. Civil Engineer. Providing civil design for park improvements that include shoreline enhancement, site planning, hardscaping, stormwater design, stormwater channel restoration, and sewer pipe replacement for the City of Mercer Island.

**EDUCATION**

Master of
Environmental
Management,
Resource Ecology,
Duke University,
2004

Bachelor
of Business
Administration,
Pace University

CERTIFICATION

WSDOT Certified
Senior Author
for Biological
Assessments

Conservation
GIS Analyst,
Duke University

Anna Kopitov will be responsible for permit review and providing a list of permits, studies, agreement, MOU's, and other permissions needed to move the project forward. She is a Senior Ecologist with over 17 years of professional experience as an ecologist and regulatory specialist providing technical input, project coordination, and project management of planning and natural resource projects including state, local and federal environmental permit applications and terrestrial and aquatic technical studies.

She has extensive experience in permit acquisition and implementation, and regulatory strategy development for State Environmental Policy Act (SEPA), National Environmental Policy Act (NEPA), Clean Water Act (CWA), Rivers and Harbors Act, Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), Washington Department of Fish and Wildlife (WDFW) Hydraulic Project Approvals (HPA), Joint Aquatic Resource Permit Application (JARPA), WDFW Aquatic Protection Permitting System and local county regulatory requirements. Ms. Kopitov is experienced in all phases of permitting and works to reduce risks and comply with all applicable environmental requirements.

SELECTED RELEVANT PROJECT EXPERIENCE**Port Orchard Marina Breakwater Replacement, Port Orchard, WA. Senior Ecologist/ Regulatory Specialist.**

Providing environmental permit services for replacement of the breakwater, including federal USACE Clean Water Act, Rivers and Harbors Act and NMFS Endangered Species Act Section 7 compliance, as well as state permitting requirements and WDFW Hydraulic Project Permits. PND is leading engineering and permitting services to the Port of Bremerton for replacement of the north and east breakwaters at the Port Orchard Marina, which have a combined length of 1,500 feet.

Kitsap Transit Annapolis Dock Fender Project, Port Orchard, WA. Senior Ecologist/Regulatory Specialist.

Leading the NEPA conformity evaluation for Kitsap Transit and the Federal Transportation Administration. To date, PND completed ESA reevaluation, NEPA conformity analysis, ESA No Effect letter and permit amendments for WDFW HPA and CWA Section 404/Rivers and Harbors Section 10. This project demonstrates our understanding of regulatory compliance for a direct path to project construction. This project is ongoing and includes DNR authorization.

Bowman Bay Pier Replacement, Deception Pass State Park, Fidalgo Island, WA.

Senior Ecologist/Regulatory Specialist. Leading permitting for replacement of an existing timber pier, launch float, and small boat ramp on Fidalgo Island for Washington State Parks. Developing permit strategy, permit applications, authoring required environmental reports and coordinating with federal, state and local agencies. Permits include U.S. Army Corps of Engineers CWA Sections 404, and 10, ESA Section 7 Biological Assessment/Evaluation, WDFW HPA, NOAA/NMFS Magnuson Stevens Act EFH Assessment, County of Skagit Shoreline Application and Critical Areas Report, and agency consultation support.

Gene Coulon North Waterwalk, Lake Washington, Renton, WA. Senior Ecologist/Regulatory Specialist.

Supporting environmental permitting for multiple improvements for The Waterwalk, a pedestrian, recreational walkway and day-boat moorage facility for the City of Renton. Her primary role is subconsultant peer reviewer of permit applications and reports for USACE CWA, WDFW HPA and ESA Section 7.

ED DAVID, P.E. | PRINCIPAL ELECTRICAL ENGINEER
PROJECT ROLE: Electrical Engineering Lead



Ed will be responsible for engineering design of electrical systems and site lighting. He has over 30 years of applied electrical engineering, project management and design experience specializing in electrical power system design for marine, port, and recreational facilities. He has designed over 100 projects involving floats, piers, and docks, including power systems design of 10 complete marinas. In addition to his overwater expertise, Ed has designed supporting electrical infrastructure for upland areas, including site distribution systems, building electrical services, and site lighting. Project types include parks, pedestrian walkways, waterfront developments, piers, docks, and roadways.

EDUCATION

Electrical Engineering, CCAF University of Maryland

REGISTRATION

Electrical Professional Engineer:
Washington, Alaska, California, Oregon, and Guam

PROFESSIONAL AFFILIATIONS

Institute of Electrical & Electronic Engineers (IEEE)
American Boat and Yacht Council (ABYC)

SELECTED RELEVANT PROJECT EXPERIENCE

The Dalles Marina Electrical System Replacement, The Dalles, OR. Electrical Engineer. This project included the complete replacement of the electrical system at The Dalles Marina. This included the complete replacement of upland electrical distribution equipment and antiquated overhead lines serving 88-slips, including 64 floating homes. The new electrical system provides multiple level ground fault protection, over-water unit substations, and in-dock electrical feeders.

USCG Covered Moorage, Coos Bay, OR. Electrical Engineer. HPe provided design and construction services for a 4,300 square foot, 2-bay covered moorage structure in Charleston, Oregon. In addition to the covered moorage bays the overwater facility includes a two-story enclosed area that includes locker and storage rooms, maintenance shop, drying rooms, restrooms, and a NOAA lab. Normal and emergency shore power is provided to 47' and 52' patrol boats.

USACE Wyeth Columbia Treaty Fishing Access Facility, OR. Electrical Engineer. The Wyeth site includes the design of a single span bridge, roadway improvements, boat dock and ramp, restroom and fish cleaning facility. The facility also includes a picnic area, stormwater facilities, and campground.

- Port of South Whidbey- Langley Harbor Redevelopment; Langley, Washington
- City of Oak Harbor- Marina Redevelopment; Oak Harbor, Washington
- City of Bainbridge Island; City Dock Improvements, Washington
- Port of Kalama- Marina Repairs & Improvements; Kalama, Washington
- Port of Everett – Central Marina Floats; Everett, Washington
- Port of Bremerton- Harper Pier Reconstruction; Port Orchard, Washington
- Port of Port Angeles- Boat Haven Redevelopment; Port Angeles Washington
- Port of Bellingham- Gate 3 Dock F&G Expansion; Bellingham, Washington
- Port of Olympia- A Dock Replacement; Olympia, Washington
- Port of Anacortes- Fuel Dock Replacement; Anacortes, Washington
- Port of Longview- Berth 5 Dolphin Replacement; Longview, Washington
- Port of Edmonds- Marina Reconstruction; Edmonds, Washington

ERIC CAMPBELL | PRINCIPAL | SENIOR CONSULTANT
PROJECT ROLE: Environmental Assessment & Permitting



Eric has over 25 years of experience in the field of natural resource management and environmental consulting, and has managed and permitted hundreds of transportation, development, and infrastructure projects for numerous public and private stakeholders throughout the Pacific Northwest. He has extensive knowledge of federal, state and local environmental regulations, with expertise in the areas of Endangered Species Act consultation, wetland/waters delineation and permitting, project mitigation, NEPA compliance, habitat assessment and survey planning, stormwater regulation, fish passage, and environmental monitoring. Eric has a broad range of experience permitting large marine projects for local agencies, ports, and private landowners throughout Oregon.

EDUCATION

Electrical Engineering, CCAF University of Maryland

REGISTRATION

Electrical Professional Engineer:
Washington, Alaska, California, Oregon, and Guam

PROFESSIONAL AFFILIATIONS

Institute of Electrical & Electronic Engineers (IEEE)
American Boat and Yacht Council (ABYC)

SELECTED RELEVANT PROJECT EXPERIENCE

Port of Astoria Marine Terminal and Mooring Basins, Astoria, OR. Currently provides environmental consulting services to the Port of Astoria for the continued maintenance and upgrading of their existing marine terminal and public moorage facilities. Services include coordination with local, state and federal permitting agencies, preparation of all environmental permit applications (i.e., Joint Permit Applications [JPAs], Endangered Species Act [ESA] compliance documents, Oregon DEQ 401 Water Quality Certifications, etc.), and mitigation planning.

Port of Alsea Marina, Waldport, OR. Provides environmental consulting services to the Port of Alsea for the expansion, replacement, and maintenance of their existing marina facilities. Services include coordination with local, state and federal permitting agencies, preparation of all environmental permit applications for impacts to jurisdictional waters, preparation of Biological Assessments to address potential impacts to ESA-listed fish species, and identification of project mitigation.

Columbia River Bar Pilots, Astoria/Warrenton, OR. Provides environmental consulting services for expansion and maintenance of the Columbia River Bar Pilot's existing marina facilities located along the lower Columbia River and Skipanon Waterway. Services include coordination with state and federal permitting agencies, preparation of all permit applications for impacts to jurisdictional waters, preparation of ESA consultation documents, and identification of project mitigation.

Hyak Tongue Point, Astoria, OR. Provides environmental consulting services to Hyak Tongue Point for the expansion and maintenance of their existing marina and boat work facilities at Tongue Point. Services include coordination with local, state and federal permitting agencies, preparation of all environmental permit applications, ESA consultation documents, and identification of project mitigation.

Front Street Marine, Newport, OR. Provides environmental consulting services to Front Street Marine and associated subsidiaries for the expansion, replacement and maintenance of their existing wharf, moorage, and seafood facilities in Newport Oregon. Services include coordination with local, state and federal permitting agencies, preparation of all environmental permit and easement applications and ESA consultation documents, and identification of project mitigation.

ADDENDUM 2. PAST EXPERIENCE

DEPOE BAY HARBOR MASTER PLAN | DEPOE BAY, OREGON

CLIENT

City of Depoe Bay

SERVICES PROVIDED

- Planning and concept design for development of comprehensive Harbor Master Plan

DATES OF SERVICE

02/2016 – 06/2016

COSTS

Engineering Fees: \$49,500

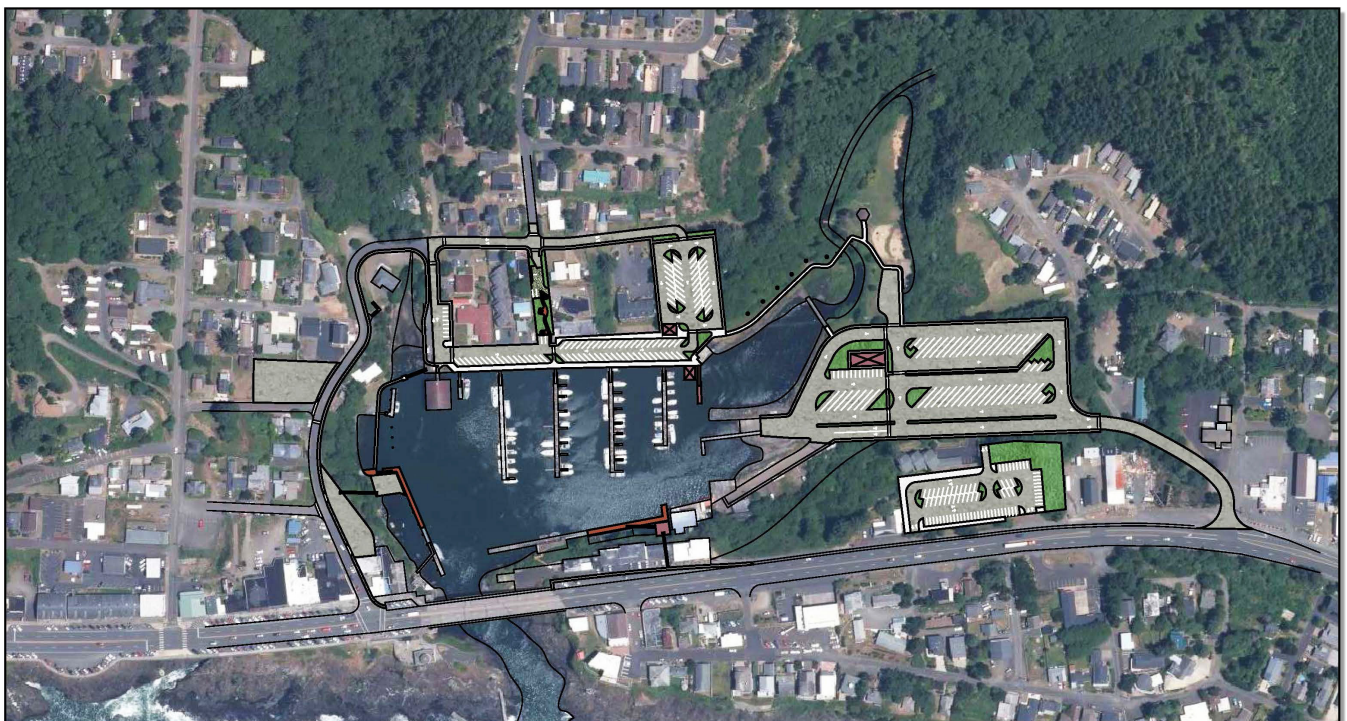
CLIENT CONTACT

Brady Weidner
City Public Works Director
541-765-3005

PND developed the comprehensive Harbor Master Plan for the City of Depoe Bay, which was completed in June 2016. The plan will assist the City in pursuing funding for improvements that were identified through previous studies and community planning. PND incorporated these objectives to create the master plan, capturing the finished condition of the harbor, identifying possible funding opportunities, and addressing the goals of the community.

PND's services included a preliminary condition assessment of existing harbor facilities; presentation of alternative design concepts; conceptual-level cost estimates; analysis of alternative design concepts; identification of possible sources of project funding; and an outline of the project action items going forward.

The goal of the master plan is to bring pedestrians to the harbor by creating ADA-compliant pedestrian access with improved signage and sidewalk lighting; improve vehicle access and circulation; replace and/or improve harbor facilities to meet future demands; improve public vessel access to the harbor by providing grant-eligible transient moorage slips; improve boat ramp parking and circulation; and maintain accommodations for commercial vessels.



PORT OF NEWPORT SMALL BOAT DOCK | NEWPORT, OR

CLIENT

Ferguson Ind. Plastics

SERVICES PROVIDED

- Design of new floating dock in tidewater
- Analysis of wind and wake forces on the floats and jetty
- Structural analysis of continuous waler system

DATES OF SERVICE

11/2010 – 02/2012

COSTS

Engineering Fees: \$23,601

CLIENT CONTACT

Cesar Gallardo
ISCO Marine Group
360.949.6227

PND provided the design of a boarding float for the new NOAA Marine Operations Center at the Port of Newport, Oregon. The 225-foot-long dock is intended for 40-foot-long research vessels, and is situated in the tidally influenced estuary of the Yaquina River two miles from the Pacific Ocean.

PND designed the float with HDPE pipe pontoons supporting a timber frame and grating that is both ADA compliant and 60% light penetrating. The timber components were sized to meet the wind and wave conditions as well as the vessel-impact criteria. The lateral loads on the float piles were analyzed using L-Pile software. Freeboard calculations were also performed to confirm the buoyancy of the float. The float was fabricated by Ferguson Industrial Plastics to whom PND provided engineering services.



PORT OF SIUSLAW OLD TOWN WHARF IMPROVEMENTS | FLORENCE, OR

CLIENT

Port of Siuslaw

SERVICES PROVIDED

- Planning
- Concept development
- Condition assessment
- Design
- Permitting
- Construction support services

DATES OF SERVICE

08/2011 – 06/2012

COSTS

Engineering Fees: \$290,276

CLIENT CONTACT

Steven Leskin, Port Manager
541-997-3437
steven.leskin@ci.florence.or.us

PND led planning, concept development, condition assessment, design, permitting, and construction support services for the rehabilitation of the Port of Siuslaw's Old Town Wharf, a 22,000-square-foot, pile-supported wooden structure. Constructed in 1966, the wharf includes two restaurants, a hoist, product transfer area, and commercial ice machine facility. In 1983 a portion of the structure burned and was reconstructed with untreated timber. Major portions of the pier were severely degraded and needed repair or replacement.

PND initially led a comprehensive underwater and above-water condition assessment with Echelon Engineers and prepared a report with repair/replacement recommendations. The goal of the project is to increase the life expectancy of the pier to 20 years, ensure code compliance for current and anticipated future uses, and minimize future maintenance costs. PND's design provides rehabilitation of the wooden wharf structure (piles, caps, stringers, deck, etc.) while maintaining the existing footprint and addressing immediate and long-term structural issues. The work includes provision for all existing and future utilities, and suggested outlines for future repairs or improvements.



PORT OF ALSEA MARINA REPLACEMENT | WALDPOR, OR

CLIENT

Bergerson Construction, Inc.

SERVICES PROVIDED

- Design for a new marina with 38 slips and an 80-foot gangway
- Grated decking surfaces to allow sunlight penetration into the water
- New 30 ft by 24 ft fishing platform and 150 ft by 10 ft floating dock
- Schematic design and concept development
- Community outreach
- Preliminary and final design
- Construction support

DATES OF SERVICE

11/2018 – 08/2019

COSTS

Project Cost: \$3 million

CLIENT CONTACT

Greg Morrell
503-325-7130
gmorrill@bergerson-const.com



PND provided engineering services to Bergerson Construction for replacement of the Port of Alsea Marina in Waldport, Oregon, in a design-build project for the Port. The existing 34-year-old marina was demolished, and new docks are being built that extend 40 feet farther out into Alsea Bay. In-water construction work started in November 2020 and the project is nearing completion.

The new marina will include 38 boat slips, short- and long-term tie-ups, walkways, and an 80-foot gangway. The old fishing pier and float will be replaced with a new 30-foot by 24-foot platform and a 150-foot by 10-foot floating dock with a gangway. The existing kayak launch float will connect to the new floating dock. The docks will be built with high-density polyurethane tubes for buoyancy, topped by a steel encapsulated frame. The decking will be a grated surface that allows sunlight to penetrate into the water below to improve salmon habitat.

Design services included schematic design, concept development, community outreach, and preliminary and final design. PND also provided dredge drawings and quantities for removal of 16,000 cubic yards of material from the port basin.

HPe provided pedestrian lighting for approx. 750-linear feed of dock, two gangways, and pedestrian pier, plus electrical service.



BANDON MARINA REDEVELOPMENT DESIGN | BANDON, OR

CLIENT

Port of Bandon

SERVICES PROVIDED

- Design development
- 30% design
- Permit drawings
- Cost estimating
- Geotech evaluation
- Pile analysis
- CAD graphics for grant support

DATES OF SERVICE

02/2019 – 10/2021

COSTS

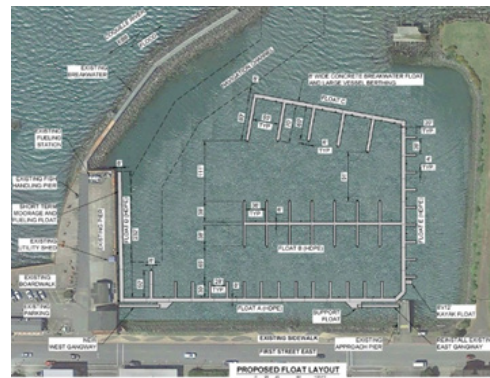
Engineering Fees: \$41,946

PND led design development for upgrades to the Port of Bandon Marina in Oregon. The 84-slip marina was built in 1984 and has reached the end of its useful life, with broken piles, repaired docks, and out-of-date utilities. The Port is considering replacing Floats A, B, C, and D.

PND designed a new layout to replace the marina with new docks, piles, and utilities, including power, lighting, water, sewer, and fire service to the vessels. Work included concept development, 30% design, and JARPA permit drawings. PND also provide construction cost estimates.

The new marina will be configured with either concrete or HDPE floats and steel float piles. The eastern gangway and both approach piers will remain and be incorporated into the marina reconfiguration. The western gangway may be replaced or incorporated into the marina upgrade. The new floats will be anchored by steel pipe piles.

PND also performed a desktop evaluation of site geotechnical conditions and developed a pile analysis. Design development services were completed in October 2021, including CAD graphics to support a grant application for the project.



BANDON BREAKWATER FISHING PIER | BANDON, OR

CLIENT

Port of Bandon

SERVICES PROVIDED

- Coastal engineering
- Biological assessment
- Permitting
- Project management
- Civil and structural design
- Planning
- Public Involvement
- Geotechnical investigations

DATES OF SERVICE

06/2019 – 08/2020

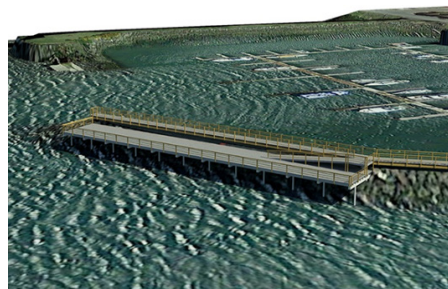
COSTS

Engineering Fees: \$55,088

PND led engineering design services for a new ADA-accessible fishing pier at the Port of Bandon, Oregon. The new pier is built on the existing jetty breakwater located on the west side of the Bandon Marina along the Coquille River.

The completed fishing pier is 135 feet long and 12 feet wide, with light-emitting fiber-glass deck grating and a reinforced concrete foundation. A 90-foot by 5-foot walkway will connect the pier to the existing rubble mound jetty. The pier design includes low-glare lighting to support accessibility. Work also included a survey of the breakwater and a wind and wave analysis. PND developed the design with input from the Port of Bandon and the US Army Corps of Engineers.

PND completed final design and bid documents for the project in August 2020.



CLIENT CONTACT (both)

Jeff Griffin 541-347-3206 portmanager@portofbandon.com

LA CONNER MARINA SOUTH BASIN FLOATS A-D REHABILITATION | LA CONNER, WA

CLIENT

Port of Skagit

SERVICES PROVIDED

- Facility condition survey
- Permitting
- Float rehabilitation design
- Float roof repairs
- Utility upgrades
- Electrical engineering

DATES OF SERVICE

05/2014 – 11/2014

COSTS

Engineering Fees: \$236,340

CLIENT CONTACT

Sara Young, Director of
Planning and Facilities
360-757-0011
saray@portofskagit.com

PND provided permitting and rehabilitation design for floats A-D at La Conner Marina's South Basin for the Port of Skagit. PND initially conducted a facility condition survey of the marina in 2012 and provided maintenance and design recommendations to keep floats A & B operating until a proposed replacement in 2019 and to improve the design life of floats C & D for a minimum of 10 years.

Rehabilitation design included a near-term maintenance plan for floats A-D and float roof repairs, float repairs, and utility/electrical repairs or upgrades. Roof repairs for the covered moorage included reinforcement of connection points between roof structure and floats, replacement of damaged roof support columns, repairs to roof structure joists, and replacement of gussets and fascia board.

HPe led electrical design for maintenance of the existing electrical system.



PACIFIC GATEWAY BREAKWATER AND MARINA, PORT RENFREW, BC, CANADA

CLIENT

Mill Bay Marine Group

SERVICES PROVIDED

- Design of a new rock breakwater and marina
- Breakwater utilized onsite granite quarry rock
- Marina designed to accommodate tour boats, private vessels, charters and larger transient yachts
- Permitting support
- Metocean & coastal studies
- Construction inspection

DATES OF SERVICE

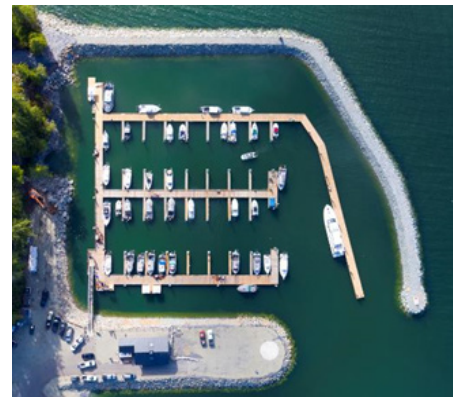
05/2015 – 04/2016

COSTS

Engineering Fees: \$139,440

PND provided engineering services to Mill Bay Marina, Inc., for design of a new breakwater and marina. The breakwater was designed to withstand offshore generated swells up to 3 meters and 7-second period. The breakwater utilized onsite granite quarry rock, with some pieces as large as 2 meters in diameter.

The marina was designed by PND to accommodate a mix of private vessels, charters and larger transient yachts, and tour boats. PND provided permitting assistance, metocean studies, long-shore drift studies, breakwater MIKE 21 modeling, and all design services through final construction drawings. PND also conducted site inspections during construction. The project was completed in 2016.



CLIENT CONTACT

Andrew Purdey 250-612-1622 APurdey@rcl.bz

FOSS MARITIME PORTLAND SITE REPAIRS | PORTLAND, OR

CLIENT

Foss Maritime Co.

SERVICES PROVIDED

- Tug terminal float replacement
- Plumb pile replacement

DATES OF SERVICE

06/2018 – 10/2021

COSTS

Engineering Fees: \$125,000

CLIENT CONTACT

Randy Salenski
Port Engineer
503-978-6540
rsalenski@foss.com

PND provided engineering design for bank stabilization and replacement of the Foss Maritime tug terminal floats in Portland, OR. The Foss terminal facility is at risk of damage due to river bank erosion caused by a combination of highwater elevations in the Willamette River and the failure of a stormwater culvert outfall. Bank stabilization is needed to avoid additional slope loss and damage to existing structures. The permitting process is addressing both the slope stabilization and float replacement projects.

Changes to the floating docks at the tug terminal include removing some floats and piles and replacing deteriorated floats with upgraded floats and new anchor piles. PND is providing design to replace the floating Access Dock with a new 6-foot-wide floating dock; re-deck 90 feet of the floating West Dock and remove the remaining 200 feet of the dock; remove 280 feet of the floating North Dock and two small three-pile dolphins; replace two sections of the floating North Dock totaling 230 feet and add a new 104-foot section of float; and remove the entire 208 feet of the existing floating South Dock. The new 14-foot-wide floats will be anchored with new plumb piles and connected with pedestrian walkways.



CENTRAL MARINA FLOATS | EVERETT, WA

CLIENT

Port of Everett

SERVICES PROVIDED

- Planning and design of Floats J, K & L
- Review of float layout for relocation/consolidation of all existing boathouses
- Float utilities design
- New gangways and abutments on the new bulkhead and pier
- Electrical distribution system, float lighting, and upland power systems design
- Bid and construction support

DATES OF SERVICE

01/2018 – 10/2019

COSTS

Engineering Fees: \$958,000

CLIENT CONTACT

Brandon Whitaker
Waterfront Place Project Mgr
(425) 388-0613
BWhitaker@portofeverett.com

PND led planning, design and construction support for Floats J, K, and L, including floats with anchor piles, utilities, and gangways. Layout considerations were also reviewed for the ongoing relocation/consolidation of all existing boathouses, and the future commercial fishing fleet.

The utility infrastructure was designed for coordination with upland development. Floats J and K connect to the existing floats for shore access and utilities. L Float has new gangways and abutments on the new bulkhead and pier. Utilities for these floats included fire standpipes, domestic water service, electrical, and fire alarm stations. Construction was completed in 2019.

HPe designed the electrical distribution system and float lighting and upland power systems for floating docks and gangways.



PORT OF KALAMA MARINA REPAIRS AND IMPROVEMENTS | KALAMA, WA

CLIENT

Port of Kalama

SERVICES PROVIDED

- Coastal engineering
- Permitting
- Project management
- Civil and structural design
- Float repairs and improvements
- Float utilities
- Replacement of the marginal float and transient moorage float
- Repairs to open and covered moorage houses
- New visitor dock
- Design development for T-Barge
- Bid package for construction
- Bid and construction support

DATES OF SERVICE

04/2020 – 06/2021

COSTS

Engineering Fees: \$86,000

CLIENT CONTACT

Darin Sampson
360-673-2325
dsampson@portofkalama.com

PND led engineering and permitting for repairs and improvements to the Port of Kalama Marina, located on the Columbia River. The project included open and covered moorage houses; fuel float; replacement and expansion of the boat launch floats; and replacement of the marginal float and transient moorage float. PND also led permitting, including JARPA, BE, HPA, Shoreline, mitigation planning, and building permits. Services included construction support for the project, which was completed in 2018.

Coastal Engineering

PND performed a metocean study to define the environmental design criteria for this marine rehabilitation project. Data and reports were reviewed and tide, wind, wave and currents were analyzed. Wind waves were estimated using hindcast wave prediction formulae and local wind data. Water levels due to spring flood events as well as predicted (astronomic) tide elevations were estimated.

Improvements at the Port of Kalama also included the following project tasks:

New Visitor Dock

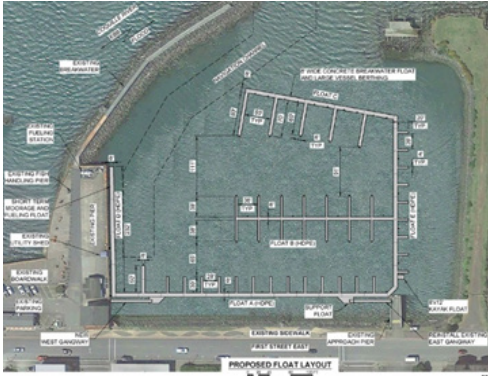
PND prepared a feasibility study and design for the addition of a new visitor dock connected by a bridge to the transient moorage dock. The concept plan included float utilities, potable water and electrical service pedestals for each slip, a dry fire system, and lighting. The new dock is under construction.

T-Barge Project Planning and Design

PND provided design and construction support for installation of a pier, drive-down ramp, and permanent barge to provide a headquarters for operation of support vessels for arriving freighters and bulk shipping. PND also coordinated the development of the biological assessment, critical areas report, mitigation plan, and cultural resource assessment for the project, which was completed in February 2020.



ADDENDUM 3: REFERENCES



Port of Bandon | Bandon, OR

Jeff Griffin
(541) 347-3206
portmanager@portofbandon.com



Bergerson Associates | Astoria, OR

Greg Morell | President
(503) 325-7130
gmorrill@bergerson-const.com



Port of Kalama | Kalama, WA

Darin Sampson | Project Manager and
Maintenance Superintendent
(360) 673-2325
dsampson@portofkalama.com

Thank you again for this opportunity to share our qualifications with you. If you have any questions, please contact Rian Johnson, PE at 206.624.1387 or rjohnson@pndengineers.com. We look forward to speaking with you.

ATTACHMENT A - COMPENSATION

Attachment A: Detailed Cost Breakdown

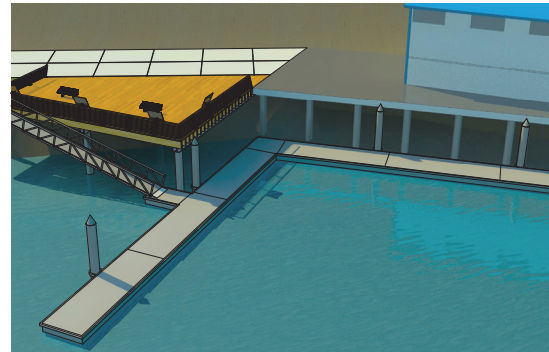
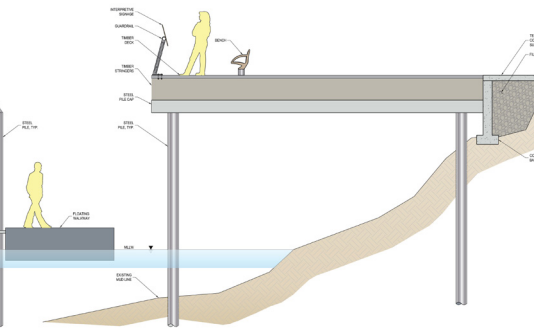
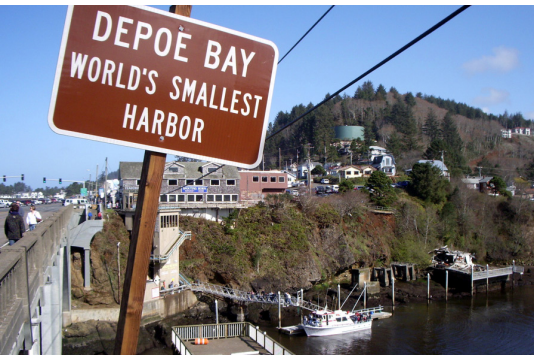
PROJECT TITLE:	Depoe Bay Docks 2, 3, and 4 Replacement	01/13/22
CLIENT:	City of Depoe Bay	
PHASE:	Dock Replacement	
JOB NUMBER:	21S-127	

PND LABOR:		PIC		PM															
		Senior Engineer VII 210.00	Senior Engineer VI 195.00	Senior Engineer V 175.00	Senior Engineer IV 165.00	Senior Engineer III 155.00	Senior Engineer II 145.00	Staff Engineer VI 140.00	Staff Engineer III 115.00	Envir Scientist V 165.00	Envir Scientist II 120.00	CAD Designer 125.00	Tech 125.00	Clerical 100.00	Total Labor	PND Labor Cost	Expenses	Subs	Task Total
Task	Task (Scope of Services)																		
1.0	Project Kickoff															3,880.00	\$873.40		4,753.40
1.1	Meeting and Travel		16	2		2								1	21	3,880.00			
2.0	Recommendations on Existing Concept															8,820.00			8,820.00
2.1	Report		12			32								2	46	7,500.00			
2.2	Address City Comments			4		4									8	1,320.00			
3.0	Redevelop Design Based on Feedback from City															39,400.00		\$ 6,600.00	46,000.00
3.1	Develop 30% Design		40	40		80						80		1	241	37,300.00			
3.2	Address City Comments		4	4		4									12	2,100.00			
4.0	Replacement and Maintenance Schedule and Costs															3,785.00			3,785.00
4.1	Develop Report		8	12									1		21	3,785.00			
5.0	60% Design Development															38,175.00		\$ 13,200.00	51,375.00
5.1	Develop 60% Design		40	40		80						70	1		231	36,075.00			
5.2	Address City Comments		4	4		4									12	2,100.00			
6.0	Prepare Permitting Documentation for Submittal															4,740.00		\$20,000.00	24,740.00
6.1	PND Coordination		4							24					28	4,740.00			
6.2	Campbell Environmental														0	0.00			
7.0	Pre-Final Plans, Specs, and Estimate															28,875.00		\$13,200.00	42,075.00
7.1	Develop Pre-Final Design		30	30		60						50	1		171	26,775.00			
7.2	Address City Comments		4	4		4									12	2,100.00			
8.0	Prepare Bid Documents															8,285.00			8,285.00
8.1	Prepare Bid Documents		24			16						8	1		49	8,285.00			
9.0	Bid Assistance															6,185.00		\$4,400.00	10,585.00
8.1	Prepare Bid Documents		8	20								8	1		37	6,185.00			
	Labor Subtotal	0	194	160	0	286	0	0	0	24	0	216	5	4	889	142,145.00	873.40	57,400.00	200,418.40
	TOTAL LABOR	0	194	160	0	286	0	0	0	24	0	216	5	4	889	142,145.00			200,418.40

MISC EXPENSES:			Cost	Expenses	Markup	
Task	Item	Quantity	Unit	Per Unit	10%	Cost
1.0	Mileage	520	Miles	\$ 0.550	1.1	\$314.60
1.0	Ferry		Each			\$0.00
1.0	ME&I	2	Each	\$ 74.00	1.1	\$162.80
1.0	Lodging	1	Each	\$ 160.00	1.1	\$176.00
All	Printing/ Copying	1	Each	\$ 200.00	1.1	\$220.00
						\$873.40

SUBCONSULTANTS						
Task				Cost	0%	Cost
3.0 HPe Electrical Design (30%)		1	Each	\$6,000.00	1.1	\$6,600.00
5.0 Hpe Electrical Design (60%)		1	Each	\$12,000.00	1.1	\$13,200.00
6.0 Campbell Environmental (Permitting)		1	Each	\$20,000.00	1.0	\$20,000.00
7.0 Hpe Electrical Design (Final)		1	Each	\$12,000.00	1.1	\$13,200.00
9.0 HPe (Bid Assistance)		1	Each	\$4,000.00	1.1	\$4,400.00
				54,000.00		\$57,400.00

Total Labor and Expenses \$200,418.40



**CITY OF DEPOE BAY
STATEMENT OF QUALIFICATIONS FOR**

Final Engineering and Construction Documents for Docks #2, #3, and #4 & Pilings Replacement

January 14, 2022 | Davido Consulting Group, Inc.

Seattle

9706 4th Ave NE, Suite 300
Seattle, WA 98115
Tel 206.523.0024

Mount Vernon

2210 Riverside Dr, Suite 110
Mount Vernon, WA 98273
Tel 360.899.1110

Freeland

1796 E Main St, Suite 105
Freeland, WA 98249
Tel 360.331.4131

Federal Way

31620 23rd Ave S, Suite 307
Federal Way, WA 98003
Tel 253.237.7770

Scope

PURPOSE AND BACKGROUND

DCG staff, including Principal-in-Charge Steve Robert, authored a Harbor Master Plan for the City that was adopted in August 2016. The City determined a high priority was to address the dilapidated docks 2 through 4 on the harbor's east side. DCG proposes to provide support to the City of Depoe Bay for the planning, field studies, permitting, and design for the demolition and replacement of the floating docks. The design also includes basic water and sewer utilities to the dock.

From previous project experience, DCG understands that it is important to begin the execution of the site visit and data collection as soon as possible after the notice-to-proceed to gather all pertinent field data critical to the permitting preparation and design. Projects involving in-water permitting have delicate schedules based on construction windows and agency review times. A Biological Evaluation, as well as upland and bathymetric surveys, can become critical path items if not executed in a timely fashion.

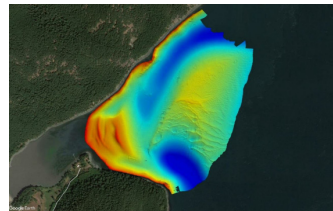
Once field study data has been collected and reviewed, and all outside input has been received, the permit applications can be submitted. We want to allow the maximum amount of time for permitting agencies to complete their review of the proposed design and to participate in constructive dialog for negotiating any mitigation required. In-water projects inevitably require significant time to permit. The Army Corps of Engineers generally predicts a 9-month period to review and approve an in-water project.

In addition, this allows time for the City to study the later design submittals to provide thorough comment and to seek any needed supplemental funding. As soon as permit applications have been submitted, the final design process can begin.



SCOPE OF WORK

Task 1: Desktop Study



DCG's strategy is to rely heavily on our past work in the harbor and existing studies by others to minimize new field work and costs. First, the team will collect all currently

available information. It is anticipated this may include as-built documents, pile driving logs, and the recent survey performed by the government. DCG has completed some of this effort as part of our master planning work, providing savings for the project. Following the collection and review of existing information, an assessment of additional data requirements will be made.

DCG leads a team highly capable of gathering the remaining information needed to clarify the design criteria and continue with permitting and design elements of the project. We will collect the additional information and data needed prior to concept development, permitting, and design. A base map by the government and will be utilized for the project. Geotechnical information will be utilized from previous pile driving records.

DCG has budgeted time for two personnel to visit the site, assess existing conditions, and gather photos.

Task 2: Project Management



This task will include tracking budgets and updating the schedule on a weekly basis. It will also involve invoicing, managing subcontractors, and verifying the

implementation of all in-house quality control guidelines. The assignment of tasks and schedules to individuals and subconsultants responsible is also important for good project management and will be performed by the Project Manager, Matt Schmitter, on a regular basis. This task also requires one on-site meeting.

This task also includes coordinating with City staff to schedule and attend a project kick-off meeting with City staff and harbor restoration steering committee members (an online public meeting that additional stakeholders will be invited to attend) to understand local conditions, constraints, and concerns.

Task 3: Permit Applications



It is standard practice for DCG to make initial contact with each agency that has jurisdiction over the proposed work. The initial coordination effort will verify which of the proposed alternatives may

qualify for exemption from certain permit requirements. Coordination effort includes one site meeting with agencies. If during our initial meetings with the agencies a way forward is determined that allows a limited permitting effort, we will update the City and revise our plan.

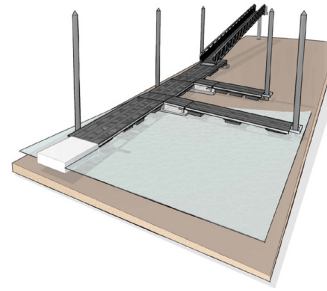
DCG will act as permitting agent on behalf of the City to coordinate directly with the agencies and prepare complete applications as required. For the sake of scoping this work, DCG has assumed that all permits would be required, and no exemptions would be granted. Each agency has unique submittal requirements and review processes. DCG will make every effort to develop supporting documentation and drawings that can be utilized by multiple jurisdictions. The following permits may be required depending on the final scope of improvements and whether that scope is determined to be jurisdictional under local, state, and federal review:

- Federal Permit Applications
 - U.S. Army Corps of Engineers Section 10 and/or Section 404
 - Oregon fish and game
 - Coastal Zone Management Consistency
 - Oregon Department of Environmental Quality
 - Shoreline Substantial Development Permit
 - Department of Natural Resources approval (required under tidelands lease)
- Checklist for National Environmental Policy Act (NEPA) determination
- Local
 - Shoreline
 - Building
 - Grading

- Site planning review
- Critical areas and no net loss review
- Design Review Board

Biological Evaluation. DCG will send one representative to the site during the field studies phase. DCG will also author a Biological Evaluation to evaluate the effects of construction activities on critical habitat.

Task 4: Plans, Specifications, and Estimates



Concept Development Phase/Permit Preparation – 30% Completion.

The basic objectives during the concept development phase is to select a preferred concept based on input from the owner and any user groups and

stakeholders, as well as to allow for the City's preferred amount of community involvement. Once a concept has been selected, the preparation of 30% drawings can commence to allow preparation of permitting documents, which are typically the limiting scheduling factor.

DCG will prepare a basis of design document to capture the following:

1. Written recommendations for any changes to conceptual design to carry forward for final design including:
 - a. A new design maintaining at least the existing dock lengths and widths
 - b. The replacement of existing H pilings with round pilings, the replacement of finger piers, and the replacement of utilities, i.e., water and electrical
 - c. Robust steel framed floats with light penetrating decking to withstand year-round conditions
 - d. A corrosion protection program based on marine and environmental conditions
 - e. ADA requirements
 - f. The re-use of existing gangways
 - g. The design of transitions into existing facilities such as the seawall, gangway connections, utilities, etc.
 - h. The design of frames with bold ports to allow new float modules to be attached on in a future expansion
 - i. The design of significant wave and current based on a coastal analysis

- j. Geotechnical assumptions
- k. Utility requirements

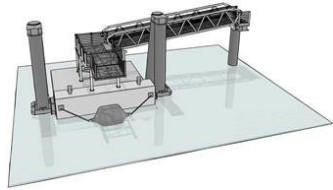
DCG will provide this information to City staff and the harbor restoration steering committee in an in-person public meeting and solicit feedback.

1 Basic Design Values		W, S, C- and MC Shapes
Conditions	ASCE	LRFD
Section	F_y, F_u, E	F_y, F_u, E
Roofing	Strong Axis: $L_x < L_y$	Use linear interpolation between L_x and L_y
Weak Axis: $L_x > L_y$		
Wind (in strong axis)	$L_x < L_y$	
Compression	$L_x < L_y$	

Engineering Calculations.

DCG has licensed professional engineers who will expertly prepare calculations and design processes for the various elements of the project. This includes physical analysis and code compliance. The result of the engineering will be a calculation package to determine the sizes of all piles, beams, caps, floats lighting, pumps, and amenities.

DESIGN PARAMETERS	
Gravitational Acceleration: g	32.17 ft/s ²
Unit Weight of Seawater: γ	64.00 lb/ft ³
Design Vessel Length: D	30.00 ft
Significant Wave Height: H_s	2.10 ft
Wave Period: T	2.50 sec
Wavelength: L	32.00 ft
Water Depth Acting on Vessel: d	0.00 ft
SWL Water Level: SWL	0.00 ft
WAVE PRESSURE	
$P_{max} = \gamma H_s (1 + K_d)$	(ASCE DMF 4.5)
Wave Pressure at SWL: P_{max}	134.40 lb/ft ²
Wave Pressure at Wave Crest: P_{max}	0.00 lb/ft ²
Average Wave Pressure: P_{avg}	67.20 lb/ft ²
Wave Force Acting on Vessel: F_{wave}	4233.60 lb
WAVE LOAD	
Wave Load: WAVE L	4.23 Kips



Design Development Phase.

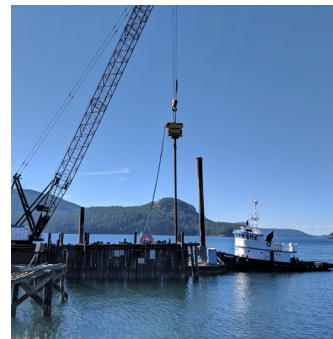
The basic objectives of the design development phase are to prepare sufficient plans, details, material and installation

specifications, and refined cost estimates to understand the character, quality, content, and cost of the intended scope of improvements. This is where the information in the design criteria document and 30% concept development is further expanded and refined.

Input and coordination between the design team and the City is critical to completely satisfy the specific needs and objectives for the project. We are extremely efficient and experienced in the preparation of civil, marine, and structural design as that is the core of our business. We will provide a construction cost estimate based on the developed design work.

We will prepare written responses with backup documentation to resolve all issues and make the necessary adjustments to the documents as we move forward in completion of the design process. The design team will finalize calculations, considering any design modifications requested by stakeholders.

Bid-Ready Contract Documents. Following the review and approval of the 90% construction documents and final cost estimate, DCG will address all final comments and prepare bid-ready project manuals and drawings for public bid solicitation. We will coordinate with the City to incorporate any required standard boilerplate documents. The completed project manuals will include all necessary contract documents for the project such as bidding and contract requirements, invitation to bid, bid schedules, contract forms, conditions of the contract, technical specifications, etc. DCG will provide all stamped bid-ready drawings and contract documents ready for reproduction per standard practice for the City. In addition, electronic drawings will be provided via e-mail.

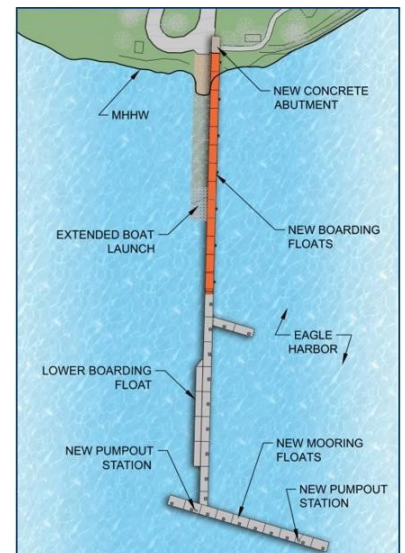


Bid Support. DCG will provide support to the City while the project is advertised for public bid. We will respond to questions that arise and prepare addendums, stamped by a licensed PE as necessary. Final bids will be reviewed we will make a recommendation for

award. DCG will attend the virtual bid opening meeting.

DELIVERABLES

1. Basis of design memo
2. PS&E documents delivered at the 60%, 90%, and 100% levels
3. Monthly status reports submitted with invoicing summarizing project activity
4. Final permit applications including:
 - a. Biological Evaluation
 - b. Permit application documents
 - c. Shoreline permit
 - d. Shoreline No Net Loss Analysis

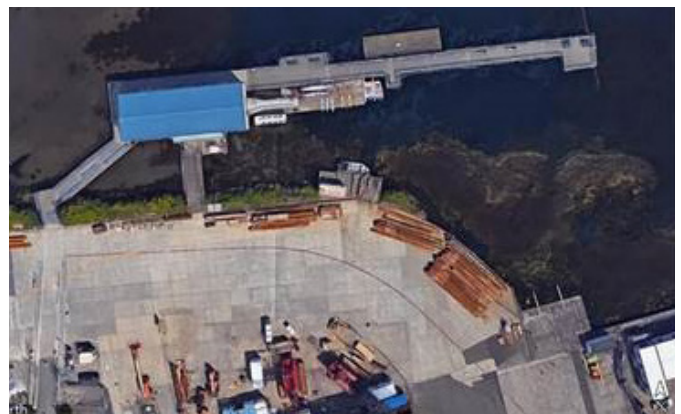
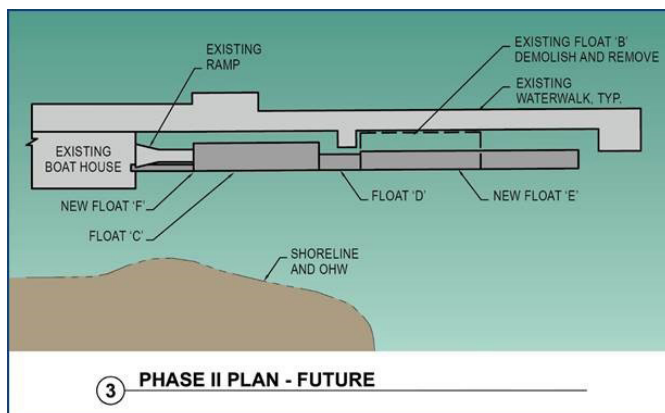


Cost of Services

TASK #	SUMMARY	ANTICIPATED COMPLETION DATE	COST
1	Kick-off meeting, in-person meeting	February 2022	\$1,452
2	Recommendations/with narrative, in-person meeting	February 2022	\$3,692
3	Provide updated design for concurrence-public meeting (zoom)	March 2022	\$3,660
4	60% design	May 2022	\$36,954
5	Anticipated maintenance schedule, costs	May 2022	\$3,852
6	Prepare permits for submittal	April 2022	\$22,988
7	100% design, cost estimate, prepare construction documents, public meetings via zoom (with City staff, harbor restoration committee, City Council to review)	July 2022	\$36,784
8	Prepare RFB for City distribution	June 2022	\$-
9	Assist with review of bids	June 2022	\$6,832
Total			\$116,214

The DCG marine team has developed a specific execution strategy to complete the scope of work efficiently for the City. It is our goal to propose the most cost-effective strategy on this project. This will be done by utilizing the following strategies:

1. We plan to utilize existing surveys and geotechnical studies. This harbor has been developed for many years and there are recent projects that have already done this work. We do not see the need to spend your valuable funds on additional studies.
2. We will work closely with fabricators to bid elements of the project as a performance specification. DCG will set the important parameters and design details, but free the fabricators to size structural elements based on available materials, limiting consulting and construction costs.
3. We will perform all work in 3D from the outset of the project using Revet and RISA 3D. This allows us to design projects quicker and more effectively than the competition.
4. We will perform all environmental permitting work in-house. We have extensive experience permitting in-water structures in the public and private sectors. We feel our private projects have honed our skills and pushed us to be much more cost-effective than other permitting consultants.

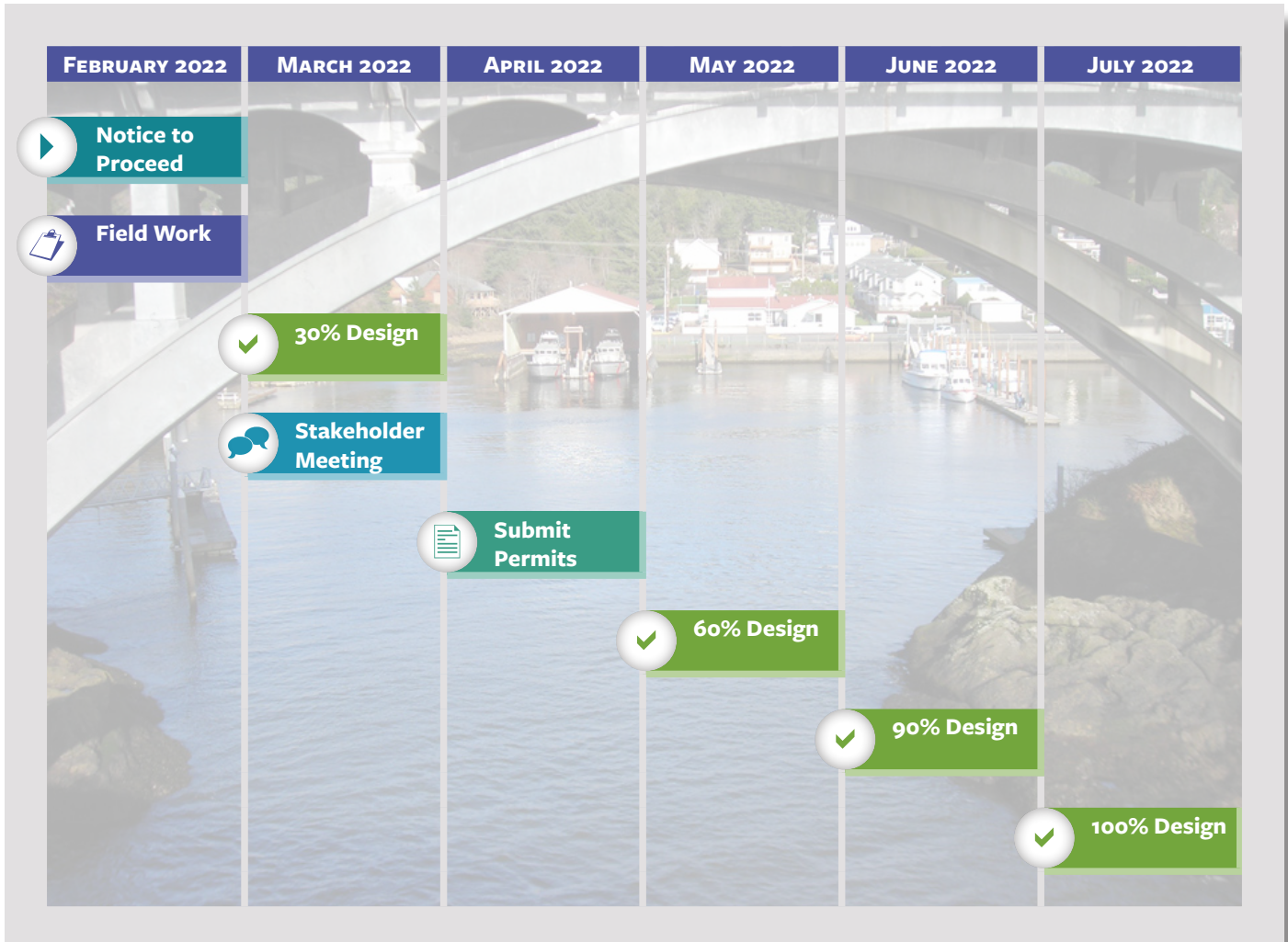


Cost of Direct Expenses

Task No.	Task Description	DCG Labor Categories					Total Hours	Subtotal
		Principal Eng VI	Engineer III	Environmental Scientist III	Engineer II - Civil	Environmental Scientist I		
1	Plan Specifications and Cost Estimates							
	Basis of Design Document	6	4		16	4	30	\$3,692
	60% PS&E	8	60	4	40		112	\$14,316
	Public Meeting Package	8	8	2	8		26	\$3,660
	100% PS&E	16	60	4	40		120	\$15,804
	Calculation Package	8	16		40		64	\$7,888
	Meetings	2	8				10	\$1,452
								\$46,812
2	Permit Package							
	Federal Package	4	12	40		60	116	\$12,344
	Local Package	4	12	40		40	96	\$10,644
								\$22,988
3	Community Outreach							
	Material Preparation	2	16	4			22	\$3,020
	Meetings	8	8				16	\$2,568
	Minutes	2	2				4	\$642
								\$6,230
4	Management							
	Admin	12	12				24	\$3,852
	Subtotal							\$3,852
5	Bid Support							
	Bid Support	16	16		16		48	\$6,832
								\$6,832
Total Estimated Hours by Labor Category		96	234	94	160	104	688	
Total Project Percentage by Employee Based on Hours		14%	34%	14%	23%	15%	100%	
Hourly Rate		\$186	\$135	\$122	\$106	\$85		
Total Estimated Charges by Labor Category		\$17,856	\$31,590	\$11,468	\$16,960	\$8,840		\$86,714
Subtotal:								\$86,714
Harbor Power Engineers								\$29,500
Total Estimated Maximum Fees:								\$116,214

Project Schedule

DCG builds schedules off in-water projects based on the allowable construction window for the fish species in the jurisdiction. This could vary greatly for the harbor. Most times, the construction window opens in July or October and extends to February. It is important to target this window and work backwards to a permit submittal the previous year. This is the critical path for most marine projects.



An in-water project schedule is built around three factors: an agency-approved construction window, a minimum 9-month permit review time by the Army Corps of Engineers, and our design time. Because of regulations regarding fish spawning and migration, piling can only be driven in a work window over the fall and winter of any year. To meet this construction date, we will submit permits in the spring of 2022 to allow ample review time.

This long review period is inconvenient for a community such as Depoe Bay, trying to build needed infrastructure. On the other hand, proper planning can take advantage of the situation. The upside is that there is plenty of time for the rest of the project work.

DCG understands that in addition to project schedule, having adequate staffing available to perform the work is critical to completing the project on time. For the Depoe Bay Harbor wharf rehabilitation project, DCG can provide staff engineers, senior engineers, and principal review to complete project deliverables according to the preliminary schedule noted above.

Capacity and Capability of Firm

DESIGNING TO THE CONDITIONS OF THE OREGON COAST



The Depoe Bay Harbor is a unique coastal environment. A narrow inlet under the Depoe Bay Bridge connects the harbor directly to the Pacific

Ocean. The harbor is sheltered from wind-generated waves in most directions but is vulnerable to waves coming in from the west in storm conditions. The highest energy imparted on structures comes from quick and sometimes violent changes in water level during changing tides. The volume of the harbor is not large (it is the world's smallest!) allowing it to fill or empty very quickly. Significant damage was seen in the harbor during the 2011 Tōhoku earthquake and tsunami. We will perform coastal calculations to determine a significant wave and impact energy during changing tides based on fetch and topography at the site. Design loads will be passed to DCG's structural engineers for piling analysis.

SPECIALIZED SERVICES

Design Concept Development and Grants



We understand the City has obtained \$2.9M in funding for the project already. We will pursue additional funding opportunities when they arise. DCG has a successful track record of

obtaining Washington State Recreation and Conservation Office (RCO), and other federal grants in support of our clients and projects. We have assisted with successful applications for numerous Boating Infrastructure Grants (BIG) awards and Boating Facilities Program (BFP) awards. Our staff is adept at evaluating conditions and determining strategies that yield possible matching grant opportunities and public-private partnerships to minimize out-of-pocket expenses. We are also experienced in preparing grant support materials.

A clean base map of the docks and upland areas will be developed for design, including information from the site visit combined with existing data on which to develop grant concepts. The final base map will include existing topography, utilities, and structures. DCG will develop two to four conceptual plans. The concept drawings will consider a variety of construction materials, footprints, and decking. Initial design will be performed to determine necessary dimensions, member sizes, and construction cost estimates. The concepts will be submitted along with a technical memorandum describing all site concepts. We will present pros and cons of each, construction cost estimates, permitting challenges or advantages, and recommendations.

DCG will prepare presentations and present concepts in meetings with stakeholders, agencies, and the community as described in the scope. Comments from these meetings will be logged and incorporated into a final concept alternatives report concluding this phase and will document the City's process and preferred path forward. Finished concepts can be used to pursue funding through all available avenues. DCG has a strong track record of obtaining grants.

Nearshore Habitat and Permitting



From an environmental standpoint, the site presents both challenges and opportunities. These areas are highly developed and often are not scrutinized as heavily as new development projects, yet new regulations and permit review times are ever increasing. The

interface of land and water is a fragile area that requires careful thought and planning so that the public benefit is sustainable in balance with the waterfront ecosystem. Improving the ecological function will require an understanding of the science of fish migration and the local, state, and federal permitting agency requirements. These issues will affect both overwater structures and shoreline vegetation, and how the shoreline banks are designed and stabilized.

The DCG team will also look at design methods to improve and support the natural process of the waterfront site to improve the water runoff performance. These methods would include light-penetrating grading areas of natural vegetation, minimizing in-water structures. Our team will consider alternate materials such as permeable pavers and open grating to minimize mitigation that may be required. All these methods will help streamline and optimize the permitting process for the project.

Obtaining permits successfully is incumbent upon an ability to respond quickly, turn on a dime, and provide the required deliverable. Whether it is a set of calculations, a missing form field, or additional quantities, our staff understands the importance of supporting reviews to keep agencies on track and meet deadlines.

Dock Replacement Design



Our design team brings a wealth of marine structural expertise in designing docks, floats, and pile-supported structures on the Oregon Coast. We have applied these technical skills to the design of structures for private and public waterfront facilities across the Pacific Northwest. From this experience, our team's engineers have developed a versatile, multidisciplinary skill set to integrate the various design features across any project of this nature.

Our first responsibility is to ensure the safety of users. We will determine design loads from applicable building codes, hydraulic analysis, and anticipated use conditions and size the required structural members. We find it best to permit all work together as the agencies typically allow five years to perform all work, but much time and money can be saved going the process at one time.

Long-term maintenance and repair (M&R) costs should be minimized and balanced with initial costs and life expectancies throughout fatigue cycles in the harbor. This is also key decision information that will be considered throughout the design process. We have experience in working with clients to perform life-cycle cost analyses, identify locally available replacement parts, and minimize staff time to maintain facilities. The selection of the layout and materials for the waterfront structures will result in a major impact to the long-term performance and maintenance cost of the overall facility.

DCG's experience in both evaluating existing waterfront facilities and designing new facilities gives our team a depth and breadth of experience to design waterfront structures, which limits overwater coverage and still provides long-term design life with minimal maintenance for the City. Our general rule is to attempt to utilize materials that can be purchased locally.

Dock Utilities



Dock utilities are another key element that will affect the form and function of the project. We must size the systems to adequately serve the full build-out condition of the site while not oversizing the lines.

Sewage systems for waterfront sites often pose challenges as the site grades are low compared to the rest of a community. We will design any pump structures on the dock carefully and minimize City maintenance.

Potable water and fire lines will be designed with the latest hydraulic software based on adjacent residual pressure readings at adjacent hydrants. We have added Harbor Power Engineers (HPE) to our team to perform initial sizing calculations for the full build-out condition so that pad-mounted transformers and distribution panels can be selected and placed in City-preferred locations. The site service must accommodate all future structures as well as site luminaires and storm/sewer equipment.

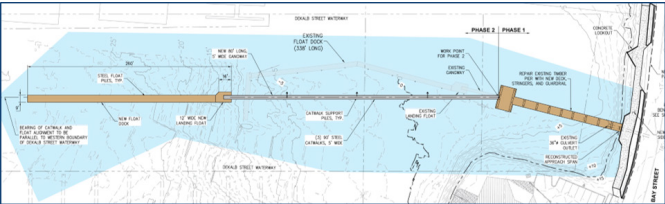
HPE is a specialty electrical engineering firm dedicated to the design of electrical power, lighting, and communications systems for coastal and waterfront facilities. HPE staff has extensive experience in the planning and design of electrical systems for marinas, piers, wharfs, floating docks, breakwaters, and other similar installations. HPE engineers and designers have designed hundreds of projects, including dozens of marinas and thousands of mooring slips. HPE, and its predecessor, has been designing marine and waterfront electrical systems for installations for 20-years. HPE finds it is best to coordinate directly with the local utility from the beginning to understand the division of construction activities between the City and the contractor, as well as negotiate an arrangement for future electrical rate.

Bid Support and Construction Management



DCG will provide bid assistance after the conclusion of design. We will prepare stamped, bid-ready project manuals and drawings for public bid solicitation. We will coordinate with the City to incorporate any required standard contract documents. The completed project manuals will include all necessary contract documents for the project such as bidding and contract requirements, invitation to bid, bid schedules, contract forms, conditions of the contract, technical specifications, etc. Electronic files of all other bid-ready contract documents shall also be provided in the appropriate formats. We will provide an original hard copy master set of all final bid-ready documents to the City upon completion of the design.

DCG finishes projects with construction inspection, field engineering, and construction management services to ensure that the design is built to the City’s standards. We utilize our technical expertise in the field of construction management, pile driving inspection, weld certification, compaction verification, and more to identify deficiencies and make recommendations for corrections; communicate with designers, clients, and owners; and maintain records during construction. DCG provides a review of project submittals, change orders, payment requests, fabrication review, fabrication inspection, and on-site field inspection.



LEVEL OF INVOLVEMENT

DCG has an expert team of marine engineers assigned to the project. Many of us got our start at PND Engineers, Inc. and KPFF Consulting Engineers where we developed our skills in the marine structural specialty. DCG’s marine department operates more nimbly and efficiently than some of the older firms by utilizing management software, hiring new talent through web-based platforms, and designing in 3D from start to finish. This leaves the team ready and available to start the project.

STAFF	ROLE	FIRM	% AVAILABLE
Steve Robert, PE	Principal-in-Charge	DCG	20%
Matt Schmitter, PE, SE	Project Manager	DCG	60%
Nick Alexander, PE	QA/QC	DCG	10%
Melissa Doonan, PE	Marine Structural Design	DCG	50%
Drew McDonald	Lead Designer	DCG	50%
Nicole Foster, MMA	Permit Consulting/ Grant Support	DCG	40%
Ed David, PE	Electrical Engineering Lead	HPe	30%

Attachment 1

FIRM PROFILE

DCG, the prime consultant for this contract, is a regional expert in civil, structural, marine, and environmental services for public and private clients. Founded in 1999, DCG has offices in Seattle, Mount Vernon, Freeland, and Federal Way. DCG's staff of approximately 80 have the proven technical expertise to guide a wide range of large projects through planning, permitting, design, and construction. DCG has designed engineering solutions to hundreds of local projects that include site development, design, and construction oversight.

DCG's marine and environmental department is a team of in-house marine engineering and regulatory compliance specialists. This group has extensive experience in the design and permitting of marine facilities from full design to performance specifying components including piers, approach docks, boat launches, ADA accessible floats, floating docks, and gangways; as well as boat lifts, floating and structural breakwaters, pile replacement, and fender and mooring systems. DCG also provides design, fabrication and construction inspection, and performance specifications for all types of float systems. We are experts in design of float types that includes modular and monolithic concrete floats, heavy glulam and polytub timber floats, modular steel or HDPE pipe floats, and covered moorage systems.



PROJECT MANAGER EDUCATIONAL AND PROFESSIONAL RECORDS



Matt Schmitter, PE, SE will serve as the Project Manager for this contract. Matt has led the structural department of DCG since its inception in 2004. In that time, he has been the principal engineer for both private and public projects throughout the West Coast. Matt's

career experience focuses on structural consulting, where he has developed a thorough understanding and involvement in all phases of a project, from design through construction. Matt has extensive experience in the structural design of various construction materials (wood, steel, concrete, masonry, and light gauge metal) and in non-building structures (retaining walls, vaults, pedestrian bridges, and MEP structures). Matt has a special passion for simplifying the complicated and providing "outside the box" solutions to unique situations. He is a member of Structural Engineers Association of Washington (SEAW).

Matt received his BS in Civil Engineering from Union College and his MS in Civil Engineering from the University of Washington. He holds registration in Oregon, Washington, California, Arizona, Montana, Utah, Colorado, and Idaho. Matt's resume containing additional information can be found in the Appendix, as well as the resumes of our other team members.

PAST PERFORMANCE

Cost Control and Ability to Meet Schedules



DCG has built its reputation by developing innovative, cost-effective project scopes to effectively solve the toughest engineering problems. We act as a valuable resource to our clients, in part by striving to stay on schedule and within budget. We will work to meet scope, budget, and schedules within this contract. Our main goal is to do quality work, while maintaining lasting relationships with clients and the communities they serve.

DCG staff has worked for private firms, consulting firms, and public agencies which has given us perspective, understanding, and respect for our client's roles, responsibilities, and challenges. We understand that budgets, schedules, and communication are equally important pieces of a successful project, and each is given the utmost consideration.

Prior to commencing work on a project, the DCG Project Manager holds a meeting with staff and any subconsultants to identify the project goals, discuss desired outcomes, and how the work will be performed and controlled, including review of the Quality Plan(s) and methods of communication to be established. Weekly internal team meetings overseen by senior staff identify critical issues and how to address them.

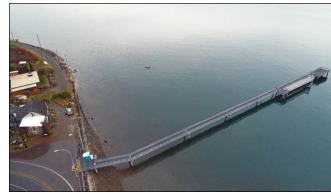
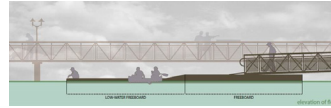
The DCG Project Manager, Matt Schmitter, will conduct a formal project review at all milestones with all project deliverables reviewed for clarity, constructability, cost control, code requirements, stakeholder coordination, schedule control, errors and/or omissions, as well as compliance with City, County, and stakeholder requirements and standards. Any changes to scope, schedules, and budgets are immediately addressed and entered into our Vantagepoint and SharePoint project management systems, which provide real time information for everyone involved on the projects.

DCG Project Managers input project staff hours into the project management schedule (workload projection) system that allows projection of hours, weeks/months in advance, as well as review of past actual hours. The Project Manager reviews the workload projections/performance with staff to make sure they are on target or to identify potential workload variances. Additionally, the Project Manager, who will be your key client contact, maintains progress report communication with you in your preferred format and preferred frequency.

We will assign staff that have the best skill sets and experience to provide the most benefit to each project and will work efficiently to assign tasks and complete work when needed.

DCG has the experience and personnel to successfully manage any project from a feasibility and options analysis phase through construction oversight and project completion. DCG engineers are adept at providing cost estimates, specifications, and management of subconsultants' work.

Quality of Work



DCG has a comprehensive quality plan for all work that is integrated throughout the project and prepared in accordance with ISO 10005-2005 Quality Management Systems – Guidelines for Quality Plans. Our Project Manager for this contract has extensive experience planning small to very large projects and will ensure the highest quality for each task order throughout the contract. A

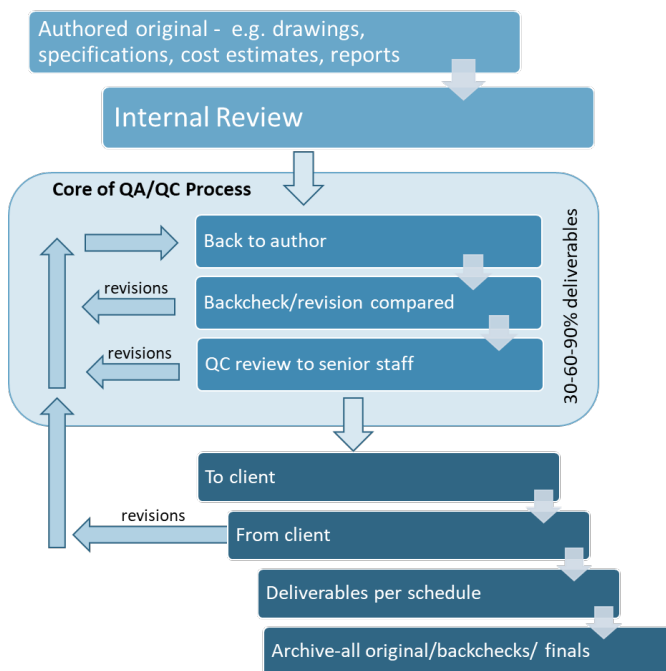
quality plan will be prepared as part of the project management plan, identifying key activities and procedures such as deliverables and QC reviewers. QA/QC is woven into each task with milestones, timing, and budget in mind. The quality plan for this contract will be reviewed by the Port and project team at the onset of the work, and Matt will regularly audit the QA/QC process tailored to the nature of the work.

All deliverables are reviewed by senior staff with necessary expertise for the review. QA/ QC resources are identified in the quality plan including QA/QC tools (e.g., checklists and design review drawing markup system) and QC reviewers are identified and scheduled early on to ensure QA/QC program implementation. Matt will be responsible for verifying workmanship and QC procedures for each task order. Reviews may include peer reviews and team review where collaboration is necessary to streamline the work. DCG reviews and back-checks work internally throughout the process. The back-checks are important because they ensure review comments are fully addressed prior to product delivery.

DCG will involve the client in the QA/QC process identifying and communicating any potential issues, risks, or changes so they are caught early – mitigating measures taken to minimize impacts to the project. DCG change logs document the issues/changes and mitigating measures. Our procedures at every step ensure a final, high-quality product that meets client expectations.

One of DCG's most important client service goals is timeliness and responsiveness. The DCG team is nimble and has an excellent track record of providing timely delivery for concurrent contracts. To keep the project on track and to deliver a quality product in a timely manner, DCG will ensure a thorough team-wide QA/QC process is followed.

When a respective discipline submits a project document to DCG, an internal review will kick-off the process. If necessary, DCG will provide red-lined comments back to the subconsultant for revisions. This round of back and forth is the core of the QA/QC plan and each round will be tracked on a standardized matrix. Relating to document content, DCG will make sure each discipline properly references all other disciplines and will ensure no gaps are left at the disciplinary interface. Should gaps be identified, DCG will assign the development of the technical detail to the appropriate party at the proper point in the schedule. Following DCG's approval of the document in question, it will be provided to the client per the agreed upon schedule and further rounds of revisions will be completed if they are needed. All finalized documents will be archived on DCG's server. DCG is confident that our QA/QC plan will ensure the delivery of fully adequate and constructible designs on schedule.



Grant Administration

PHASE 1

PHASE 2

PHASE 3A

PHASE 3B

PHASE 4 (FUTURE)

Source: City of Gig Harbor



Appendix: Resumes



STEVE ROBERT, PE PRINCIPAL MARINE ENGINEER

Role: Principal-in-Charge

Education

BS, Civil Engineering
Gonzaga University, 2006

Registration

Professional Engineer,
State of Washington,
License No. 47721, 2011

Experience

15 years

Relevant Experience

- Waterfront Recreation Facilities
- Low-Impact Development Design
- Guide Pile Design
- Floating Docks and Gangways
- Sanitary Sewer System Engineering
- Site Planning/Engineering
- Project Management
- Construction Management

Experience Summary

Steve has 15 years of experience in site development for waterfront, pedestrian access, park, road, and port projects. His experience includes bulkheads, boat ramps, docks, boardwalks, trails, pedestrian esplanades, sidewalks, parking facilities, utilities, and stormwater systems. His utility projects have focused on pump station and force mains, sanitary sewer and storm sewer utility layout, and water supply. Steve has specialized skills in site grading, computer stormwater hydrologic modeling, and stormwater treatment system design. He also has experience in structural analysis of overwater structures, foundation design, and slope stability analysis.

Depoe Bay Harbor Master Plan, Depoe Bay, OR (2016)*

Steve was the Lead Civil Engineer and provided upland civil engineering for the development of the comprehensive Harbor Master Plan for the City of Depoe Bay, which was completed in June 2016. The goal of the master plan is to replace and/or improve harbor facilities to meet future demands, bring pedestrians to the harbor by creating ADA-compliant pedestrian access, improve vehicle access and circulation, improve public vessel access to the harbor by providing grant-eligible transient moorage slips, improve boat ramp parking and circulation, and maintain accommodations for commercial vessels. Services included a condition assessment, concept design alternatives and cost estimates, and support identifying grant funding sources.

Washington State Parks Blake Island State Park Marina Improvements Pre-Design, Kitsap County, WA (2021-Ongoing)

Steve is the Principal-in-Charge and DCG is providing all engineering services related to a comprehensive look at facility needs through a pre-design process. The Blake Island Marina project proposes to dredge sand and sediment from the entrance channel and Blake Island Marina; replace moorage piers, floats, gangways, boat pump out platform, and access routes to comply with federal accessibility requirements within the marina; examine reconfigurations of moorage to be more efficient and flexible; examine breakwater improvements; remove creosote from the pier/marina; and construct a permanent cargo ramp for the maintenance vessel.

City of Gig Harbor Community Paddlers Dock, Gig Harbor, WA (2015-Ongoing, Phase I Construction Completed in 2019)

Steve is the Principal-in-Charge and led all of the design and ongoing permitting efforts for the installation of a new pier, gangway, and float system for the City and the Gig Harbor Canoe and Kayak Racing Team at the City of Gig Harbor's Ancich Waterfront Park. Steve has worked continuously on projects at Ancich Park since 2015.



Steve Robert Page 2

He previously led all work for the first phase of work at Ancich Park, including geotechnical investigation, a new bulkhead, a boat storage building, site improvements, historic building rehabilitation, and pier replacement. He led all construction support for that project which concluded in 2019. The goal of this current work is to provide a public launch point for human-powered watercraft for the general public, as well as the Gig Harbor Canoe and Kayak Racing Team.

Work includes the design of a pier attachment, gangway, and ADA accessible kayak launch floats that ground onto concrete foundations at low water. The design has resulted in the unique design of float system, grounding into a stair stepped profile, allowing the finger floats to ground flat with no cross slope. The utility design built on a design the team innovated at the Bainbridge Island City Dock carrying pipes through the float system in a prefabricated chase.

Steve oversaw permitting of overwater structures coordination and permit application preparation, including submittal of a JARPA package to the USACE, WDFW, DNR, and the Department of Ecology; as well as the SEPA checklist through the lead agency for all phases of the project. Mitigation for the project included beach cleanup and creosote pile removal.

City of Bainbridge Island City Dock, Bainbridge Island, WA (2015-2018)*

Steve was the Project Manager and led engineering and permitting for improvements to City Dock for the City of Bainbridge Island. Improvements included a dock replacement and new utilities with a pumpout station to provide moorage for standard motorboats and large dinner cruise vessels. Work included the replacement of the boat launch boarding floats, the expansion of the mooring floats, and new low freeboard floats for the kayak launch. Steve initially provided preliminary design and pre-submittal permit coordination for the master planning of the dock arrangement and assisted with grant applications. Work also included permitting of overwater structures; coordination and permit application preparation, including submittal of a JARPA package to the USACE, WDFW, DNR, and the Department of Ecology; as well as the SEPA checklist through the lead agency. Mitigation for the project included debris removal which Steve coordinated with the City. Steve completed the final design, agency coordination, and bid support. Steve also performed coastal calculations to determine a significant wave based on fetch and topography at the site. The utility design resulted in a very unique solution. Lines were buried in a casing pipe along the boat ramp, connected to the float system via flexible pipes, and carried through the float system in a prefabricated chase. The project concluded with construction support and observation which was completed in June 2018.

Port Angeles Boat Haven Boat Launch, Port Angeles, WA (2015-2016)*

Steve was the Project Manager and led permitting and engineering services for upgrades and repairs to the Boat Haven Boat Launch. The existing floats did not rest on a concrete surface but on the natural seabed below, leaving the floats vulnerable to damage from rocks and “off-kilter” at low water, plus the ramp was not wide enough to accommodate multiple launches. The upgrades and repairs provide wider boat access, pedestrian access to the floats, new float piles, and a stable resting foundation for the floats. Steve provided site planning; permitting assistance; civil and structural engineering; the preparation of plans, specifications, and estimates (PS&E); and bid support for the project which was completed in April 2016.

**Prior to DCG*





MATTHEW C. SCHMITTER, PE, SE

PRINCIPAL STRUCTURAL ENGINEER

Role: Project Manager

Education

BSCE, Union College, 1994

MSCE, University of Washington,
1996

Registration

WA PE #37334 – 2001

WA SE #37334 – 2007

CA PE #C60337 – 1999

CA SE #S5114 – 2007

AZ PE #42101 – 2005

MT PE #28848 – 2013

UT PE #8533483 – 2013

CO PE #0049017 – 2014

ID PE #15144 – 2014

OR SE #94303PE – 2019

Experience

25 years

Relevant Experience

- Site Improvement Structures
 - In-Water Structures
 - Pedestrian Bridges
 - Gangways
 - Retaining Walls
 - Temporary Shoring
 - Detention Vaults

Experience Summary

Matt has led the structural department of DCG since its inception in 2004. In that time, he has been the principal engineer for both private and public projects throughout the West Coast, including Oregon. Matt's career experience focuses on structural consulting, where he has developed a thorough understanding and involvement in all phases of a project, from design through construction. Matt has extensive experience in the structural design of various construction materials (wood, steel, concrete, masonry, and light gauge metal) and in non-building structures (retaining walls, vaults, pedestrian bridges, and MEP structures). Matt has a special passion for simplifying the complicated and providing "outside the box" solutions to unique situations. He is a member of Structural Engineers Association of Washington (SEAW).

Brutus HOA Bulkhead Replacement, Camano Island, WA (2019-Ongoing)

Matt is the Structural Engineer and provided structural design and permit compliance support for 340-ft of bulkhead to replace an existing timber wall that had become badly deteriorated. Repairs were needed to protect the coastal bluff and 22 homes that sit atop it. Work began with a geotechnical investigation and comparison of wall concepts including concrete, sheet pile, soldier pile, and MSE systems. The full scope of work entailed developing a design for the wall, obtaining approved permits, and providing construction support.

National Park Service Replacement Floating Dock for National Historic Landmark Scow Schooner Alma, San Francisco, CA (2019-2021)

Matt was the Principal-in-Charge and oversaw design services for the replacement of timber floats and steel guide piles within San Francisco National Historic Park. The float is the start and end point for excursions on the historic Scow Schooner Alma. Services included float, guide pile, and gangway design. The project went to construction in 2021.

National Park Service Spring Canyon Boat Launch, Lake Roosevelt, WA (2018-2020)

Matt was the Principal Design Engineer for the schematic design and cost estimates for repair alternatives that involved new steel piles with replacement of existing failed lagging to stabilize the seawall and an option to replace the seawall using a cast-in-place concrete wall system. The seawall, originally built in the 1960s, has been failing over the past few years. Construction documents were created for full replacement along with plans, specifications, and a cost estimate once this option was chosen.



Matt Schmitter Page 2

Esperance Park, Snohomish County, WA (2017)

Matt was the Principal Engineer for the design of a concrete rebound wall, play equipment, and site retaining walls for a nine-acre park that includes new walking trails, playground facilities, viewing/gathering areas, athletic fields, and stormwater/habitat facilities.

City of Lake Forest Park Lyon Creek Bypass Pipe Design, Lake Forest Park, WA (2013-2016)

Matt was the Lead Structural Engineer for the project that replaced four culverts, installed two bridges, and enhanced stream habitat on Lyon Creek. Matt designed a prefabricated vehicular bridge to span the creek, provided design for cast-in-place retaining walls and wings walls, assisted with constructability planning for the culvert replacement on SR 522, and oversaw inspections of the precast concrete culvert sections at the precast facilities.

City of Shoreline Meridian Park, Shoreline, WA (2013)

Matt was the Principal Engineer for the design of a boardwalk located at Meridian Park in the City of Shoreline.

Metro Parks Tacoma Nature Center, Tacoma, WA (2010)

Matt was the Structural Engineer for the project to design park improvements including a nature-centered playground, trails, and an interactive water feature. DCG was responsible for the design of structural, drainage, erosion control, and utility elements for the project. Work included the design of shotcrete play equipment that was formed to look like natural objects (logs, stumps, etc.), foundations for pre-manufactured equipment, and the overall structural review of landscape features.

Seattle Public Utilities Marra Farm Park Pedestrian Bridge, Seattle, WA (2007-2009)

Matt was the Structural Engineer for a pedestrian bridge as part of the 4th Ave S and S Trenton St Storms Drainage Improvements project. The bridge was designed in accordance with the requirements of Seattle Parks and Recreation and Seattle Public Utilities. The design of the bridge and its abutments were included as part of our civil engineering services for the 4th and Trenton project. The combination of civil and structural services delivers a coordinated product under a single contract and point of contact, simplifying the project for our clients.





NICK ALEXANDER, PE

SENIOR CIVIL ENGINEER

Role: QA/QC

Education

BS, Civil Engineering
Gonzaga University, 2005

Registration

Professional Engineer, 2010
State of Washington
License No. 46905

Experience

16 years

Relevant Experience

- Waterfront Recreation Facilities
- Low-Impact Development Design
- Stormwater Modeling
- Water System Engineering
- Sanitary Sewer System Engineering
- Site Planning/Engineering
- Project Management
- Construction Management

Certifications/Continuing Ed.

American Welding Society, 2010

Experience Summary

Nick is a Senior Civil Engineer at DCG with 16 years of experience in boat launch facility design and upland site development for port and recreational waterfront projects. His work includes project management; planning; client and subcontractor coordination; permit drawing preparation; and utility design, including pump station and force mains, sanitary sewer and storm sewer utility layout, water supply, and road design. Nick has specialized skills in site layout and grading, computer stormwater hydrologic modeling, and stormwater treatment system design. His waterfront projects have included dock renovations; the replacement of boat launches and floats; and site civil design for parking lots, sidewalks, and roads. Nick has also spent multiple weeks on different projects providing construction inspection and reporting at remote sites.

National Park Service Replacement Floating Dock for National Historic Landmark Scow Schooner Alma, San Francisco, CA (2019-2021)

Nick was the Project Engineer for design services for the replacement of timber floats and steel guide piles within San Francisco National Historic Park. The float is the start and end point for excursions on the historic Scow Schooner Alma. Services included float, guide pile, and gangway design. Nick assisted with the concept development and options analysis preparation for the ADA compliant access ramp for boarding the vessel, and preliminary site drawing development.

City of Bainbridge Island City Dock, Bainbridge Island, WA (2015-2018)

Nick was the Project Manager/Engineer and led the design for a new boat launch boarding float, the extension of the launch ramp, and the expansion of the floating moorage for City Dock. This project for the City of Bainbridge Island included concept design development and coordination with City staff for a new float arrangement, and concept design for float utilities (potable water, sewer pumpout, and electrical for each slip; a dry fire system; and lighting for the floats). Nick provided permitting support and final design documents for the project. During the concept development and design process, Nick helped analyze and design interfaces between the low-freeboard floats for access of non-motorized personal watercraft and the mainwalk floats for vessel boarding and temporary mooring.

S'Klallam Tribe, Point Julia Boat Ramp, Port Gamble, WA (2014)*

Nick was a Project Engineer and provided engineering design for the development of boat ramp concepts and cost estimates for replacing an existing pier and boat launch. Each concept also included boarding floats, transient floats accessed by a gangway, and a swim or recreational float. He was a subconsultant to Hart Crowser for the preliminary feasibility, cost estimates, and ecological impacts to replace an existing pier and boat launch for the Port Gamble S'Klallam Tribe.

**Prior to DCG*





MELISSA DOONAN, PE, SE

SENIOR STRUCTURAL ENGINEER

Role: Marine Structural Design

Education

MS, Civil Engineering
University of Washington, 2002

BS, Civil Engineering
University of California, Davis, 1997

Registration

State of California #C-60829
State of Washington #42930

Structural Engineer:
State of Washington #42930

Experience

23 years

Relevant Experience

- Waterfront Structures
 - Timber Piers
 - Floating Docks
 - Boat Launch
- Soil Retaining Structures
 - Shoring
 - Bulkhead Walls
 - Retaining Walls

Experience Summary

Melissa has more than 20 years of experience in marine structural engineering of both private and public projects throughout the West Coast. Melissa's career in structural consulting includes all phases of design through construction and assessments of existing structures. Melissa has extensive experience in the structural design of fixed piers, floating docks, bulkheads, and buildings.

Whatcom County Parks Lighthouse Marine Park, Point Roberts, WA (2012-2016)

Melissa was the Project Structural Design Engineer and Project Manager and was responsible for the design of the replacement boat launch floating dock and pavement upgrades. The design included the replacement of the boat launch, design of aluminum framed floats, and guide piles. Melissa coordinated with the civil engineer for the design of parking lot repairs and revisions.

Squalicum Harbor Boat Launch and Rinse Station, Port of Bellingham, WA (2012)

Melissa was the Project Structural Design Engineer and Project Manager and was responsible for design of the replacement boat launch pavement repairs and floating dock piles. The project included the replacement of the boat launch floats. Coordinated with the civil engineer for design of the rinse station.

MacKaye Harbor Public Dock, Lopez Island, WA (2006)

Melissa was the Structural Design Engineer and provided structural design for the renovation of an existing 12-ft by 800-ft pier. The Army Corp of Engineers required an "after-the-fact" permit due to previous work without a permit. This required a JARPA permit application and coordination with state and federal agencies. The final product was a mixed wood and steel grated deck with floats on one end.

University of Washington Oceanography Dock, Seattle, WA (2002-2005)

Melissa was the Project Structural Design Engineer and Project Manager and was responsible for design of the replacement deck. The project included new fender piles and moving the existing 50-ft by 26-ft building off the dock for the replacement of the deck and back onto the dock with new siding and windows. Melissa designed repairs to the existing seawall and paving and grading to fix the sink hole. Melissa also designed repairs to the existing building on the dock from age and moving it to the barge and back during repairs to the dock structure. Melissa worked with the University and the Department of Fish and Wildlife to provide 60% ambient light transmission for migrating salmon. This project received the ASCE Seattle Section Outstanding Award for Excellence in Small Projects 2005.





DREW MCDONALD, EIT

SENIOR DESIGN LEAD

Role: Lead Designer

Education

Architectural Engineering Drafting
2-Year Program
North Seattle College, 2012

Registration

Engineer-in-Training
State of Washington
No. 21031382, 2021

Experience

10 years

Relevant Experience

- Project Management
- Construction Management
- Site Planning/Design
- Waterfront Civil Design
- Waterfront Structural Design
- Waterfront Facilities Design
- Preliminary and Concept Design
- Waterfront Permitting
- Seattle Permitting
- Utility Design

Experience Summary

Drew has ten years of experience in civil, structural, marine, coastal, value, permit, construction, and environmental engineering. He has an extensive background in most sectors of the industry including private clients; commercial; industrial; and local, state, and federal governments. He has performed projects in a wide range of jurisdictions meeting and exceeding design standards and requirements. His projects range from building structural to coastal shoreline restoration and from passenger boarding systems to large scale port developments. His core competencies include project management; preliminary and concept design; detailed project design in 2D, 3D, and 4D; technical drafting; drafting standards; renderings and animations; technical writing; authoring specifications; interference detection; as well as team coordination internally and externally.

City of Gig Harbor Community Paddlers Dock, Gig Harbor, WA (2015-Ongoing, Phase I Construction Completed in 2019)

Drew was the Lead Designer and provided design and ongoing permitting efforts for the installation of a new gangway and float system for the City and the Gig Harbor Canoe and Kayak Racing Team at the City of Gig Harbor's Ancich Waterfront Park. Drew started as the Lead Project CAD Designer for Ancich Park and has worked continuously on projects at the site since 2015, including a new bulkhead, boat storage building, site improvements, historic building rehabilitation, and pier replacement. He led all construction CAD and design support for the project that concluded in 2019. Drew coordinated with permitting of overwater structures and permit application preparation, including submittal of a JARPA package to the USACE and WDFW, DNR, and Department of Ecology as well as the SEPA checklist through the lead agency for all phases of the project.

Port Angeles Boat Haven Boat Launch, Port Angeles, WA (2015-2016)*

Drew was the Lead CAD Designer and helped with permitting and engineering services for upgrades and repairs to the Boat Haven Boat Launch. The existing floats did not rest on a concrete surface but on the natural seabed below, leaving the floats vulnerable to damage from rocks and "off-kilter" at low water, plus the ramp was not wide enough to accommodate multiple launches. The upgrades and repairs provide wider boat access, pedestrian access to the floats, new float piles, and a stable resting foundation for the floats. Provided site planning; permitting assistance; civil and structural engineering; preparation of plans, specifications, and estimates (PS&E); and bid support for the project which was completed in April 2016.

**Prior to DCG*





DREW MCDONALD

SENIOR ENVIRONMENTAL SCIENTIST

Role: Permit Consulting/Grant Support

Education

MMA, Environmental Policy
University of Washington, 2016

BS, Marine Biology
Western Washington University, 2014

Experience

5 years

Certifications/Continuing Ed.

- Senior WSDOT Biological Assessment Author
- Wetland Training Institute
 - Wetland Delineations
 - Plant Identification
- Certificates of Completion from the Coastal Training Program WA for the following:
 - Using the Credit/Debit Method for Estimating Mitigation Needs
 - How to Administer Development Permits in Washington's Shorelines
 - How to Determine the OHWM
 - Eelgrass Delineation
 - How to Conduct a Forage Fish Survey
 - Winter Tree and Shrub Identification for Western WA Puget Lowland Habitats

Experience Summary

Nicole provides a wide range of consulting experience in environmental compliance, permitting, planning, and management. She has conducted all aspects of small- and large-scale field assessments and permits for civil and structural engineering projects throughout the Pacific Northwest. She is known for achieving a client's goals within regulatory parameters. Common permits and documentation Nicole prepares include USACE Section 404, 408, and 10 Permits; NEPA/SEPA documentation; Section 401 Water Quality Certifications; Hydraulic Project Approvals; DNR Habitat Stewardship Measures and Aquatic Leases; NPDES Permits; Biological Assessments; Incidental Harassment Authorizations; Mitigation and Monitoring Plans; and Wetland and Eelgrass Delineations.

Lincoln Landing Park, City of Mercer Island, Mercer Island, WA (2017-Ongoing)

Nicole provided full permitting services for planning and enhancement efforts for the restoration of the shoreline and upland at the Lincoln Landing neighborhood park for the City of Mercer Island Parks and Recreation Department. The project included the removal a concrete bulkhead at this residential Lake Washington site and the installation of a soft shoreline and enhanced stream/stormwater channel. The goals of the project were to improve water quality, enhance nearshore habitat for juvenile Chinook salmon, support native shoreline vegetation for wildlife habitat, improve stormwater infiltration and sediment capture, maintain long-term channel stability, and improve site aesthetics. Services included stormwater sampling.

City of Gig Harbor Community Paddlers Dock, Gig Harbor, WA (2015-Ongoing, Phase I Construction Completed in 2019)

Nicole is the Permitting and SEPA Specialist and has provided full permitting services for multiple projects at Ancich Waterfront Park including the initial park improvements and mitigation monitoring, historic netshed rehabilitation, kayak launch float installation, and a feasibility study for a commercial fishermen homeport with advanced mitigation. The initial park improvements included the replacement of a timber pile bulkhead with a concrete bulkhead, the filling of two wetlands with a rain garden, the installation of a boat storage building with an ADA lift, and the replacement of two piers. Atop one of the piers is the historic Ancich Brothers' Netshed which required extensive coordination with DAHP to rehabilitate the structure into a working netshed for the City's fishing fleet.





ED DAVID, PE

PRINCIPAL, SENIOR ELECTRICAL ENGINEER

Role: Electrical Engineer

Education

Electrical Engineering, CCAF
University of Maryland

Experience

30+ years

Registration

Electrical PE – Alaska, California
Oregon, Washington, Guam

Certifications/Continuing Ed.

- Institute of Electrical & Electronic Engineers (IEEE)
- American Boat and Yacht Council (ABYC)

Experience Summary

Ed has over 30 years of applied electrical engineering, project management, and design experience specializing in electrical power system design for marine and port facilities. He has designed over 200 projects involving piers, wharfs, docks, dry docks, waterfront buildings, and boat/shipyards including power systems design for complete marinas. As a specialist, Ed has an in-depth understanding of the systems unique to this industry, including shore power/cold ironing, high mast lighting systems, boat ramps, and launch facilities.

City of Bainbridge Island City Dock, Bainbridge Island, WA (2015-2018)

Electrical scope for a renovation and expansion of the existing Eagle Harbor guest moorage docks included pad mounted transformers and cable routing through a unique fabricated chase in the float modules. New docks are provided for a boat launch and two dozen guest moorage slips. Shore power is provided for all slips. Fully programmable and dimmable dock lighting system is included for carefully balancing dock safety with environmental considerations.

City of Port Orchard Dekalb Pier Improvements, Port Orchard, WA (2012-2018)

HPe subconsulted to Steve Robert and Nick Alexander for reconstruction of the 76-foot pedestrian pier, gangway, and 150-foot floating dock on Sinclair Inlet. Project included streetfront improvements, electrical service, pedestrian and street lighting. Specialized considerations include integration with existing Port Orchard lighting systems and community-friendly night scape features.

Port of Bremerton Harper Dock Replacement, Bremerton, WA (2015)

HPe subcontracted to Steve Robert and Nick Alexander for reconstruction of the historic pier in Harper, WA. Originally built for Mosquito Fleet steamboats, the pier is now a part of the national water trails system. The pier is over 400-feet in length with a parallel floating dock and gangway. Electrical systems include a pedestal service and low level LED lighting.

Port of Olympia Percival Landing E & F Floats, Olympia, WA (2015)

Boat moorage at Percival Landing Park in Olympia, WA. The project included esplanade connected gangways and floating docks for guest moorage. Power and lighting systems provided for public use. Over 800-linear feet of additional dock space was provided.

Attachment 2

PROJECT EXPERIENCE

Washington State Parks Blake Island State Park Marina Improvements Pre-Design, Kitsap County, WA (2021-Ongoing)

DCG is providing all engineering services related to a comprehensive look at facility needs through a pre-design process. The Blake Island marina project proposes to dredge sand and sediment from the entrance channel and Blake Island Marina; replace moorage piers, floats, gangways, boat pump out platform, and access routes to comply with federal accessibility requirements within the marina; examine reconfigurations of moorage to be more efficient and flexible; examine breakwater improvements; remove creosote from the pier/marina; and construct a permanent cargo ramp for the maintenance vessel.

Costs: Project is in progress, construction cost estimated at \$4.5M

Current Client Contact: Kinnan Murray, Washington State Parks, Park Ranger, 360.478.6460



Port of Port Angeles Boat Haven Boat Launch, Port Angeles, WA (2015-2016)

Steve Robert led permitting and engineering services to the Port of Port Angeles for upgrades and repairs to the Boat Haven Boat Launch. The existing floats did not rest on a concrete surface but on the natural seabed below, leaving the floats vulnerable to damage from rocks and “off kilter” at low water, and the ramp was not wide enough to accommodate multiple launches.

Costs: \$578,000

Current Client Contact: Chris Hartman, P.E., Port of Port Angeles, Director of Engineering, 360.417.3422 and Jesse Waknitz, Port of Port Angeles, Environmental Manager, 360.460.1364

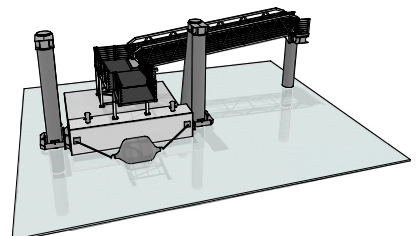


National Park Service Hercules Gangway, San Francisco, CA (2020-2021)

DCG provided marine and environmental services for the berthing and gangway improvements of the National Historic Landmark Steam Tugboat Hercules. The current gangway system does not allow for access to anyone except during very limited tidal ranges. Currently, NPS Interpretive Rangers must raise and lower the gangway using a motor and cable system during tidal changes. The design and configuration of the proposed system was well-vetted with the Park’s ships maintenance, the Interpretive staff, and management. The access includes a concrete floating dock with aluminum access superstructure. DCG innovated design of two simple dolphin structures to limit deflection of the floating dock to protect the aluminum ramps from deflection induced stresses. DCG finished design work in February 2021. The project is currently being permitted.

Costs: \$900,000

Current Client Contact: Michael R. Bell, San Francisco Maritime NHP Project Manager / COR, 415.859.6794



City of Bainbridge Island City Dock, Bainbridge Island, WA (2015-2018)

Steve Robert led engineering and permitting for improvements to City Dock for the City of Bainbridge Island. Nick Alexander was the project engineer. Improvements included a dock replacement and new utilities with a pumpout station to provide moorage for standard motorboats and large dinner cruise vessels. Work included the replacement of the boat launch boarding floats, the expansion of mooring floats, and new low freeboard floats for the kayak launch.

Nick initially provided preliminary design and pre-submittal permit coordination for master planning of the dock arrangement and assisted with grant applications. Work also included permit coordination and permit application preparation, including submittal of a JARPA package to the USACE and Washington State Departments of Fish and Wildlife (WDFW), Natural Resources (DNR), and Ecology.

Steve completed the final design, permitting, agency coordination, and bid support. Steve also performed coastal calculations to determine a significant wave based on fetch and topography at the site. The project concluded with construction support and observation for the project which was completed in June 2018.

The electrical scope for a renovation and expansion of the existing Eagle Harbor guest moorage docks provided by HPe included pad mounted transformers and cable routing through a unique fabricated chase in the float modules. New docks are provided for a boat launch and two dozen guest moorage slips. Shore power is provided for all slips. Fully programmable and dimmable dock lighting system is included for carefully balancing dock safety with environmental considerations.

Costs: \$1.9M

Current Client Contact: Mark Epstein,
City of Bainbridge Island, Engineering
Project Manager, 206.780.3721



City of Port Orchard DeKalb Pier Improvements, Port Orchard, WA (2012-2018)

The team led design and permitting for improvements to the DeKalb pier, floats, and streetscape for the City of Port Orchard. Work initially included a condition assessment of the floats and the pier; a 168-ft long timber structure supported by creosote-coated timber piles. The team subsequently developed design concepts and environmental and structural design criteria for improvements to the facility.

The team completed preliminary engineering and phasing, permitting, agency coordination, final design, bid support, and construction administration for both phases of the pier improvements. Phase I included removal of the existing timber deck and guardrails, additional timber stringers, a new fiberglass deck, new guardrails, repairs to the pile bent cross-bracing, interim float repairs, and a reconfigured pier approach with an ADA compliant ramp. Phase I construction was completed in 2013.

Phase II included demolition of existing timber floats, extension of the pier with a 270-ft aluminum catwalk to a 260-ft long aluminum frame float with 80-ft gangway. Construction observation and administration for the project was completed in 2018.

The project included streetfront improvements, electrical service, pedestrian and street lighting provided by HPe. Specialized considerations include integration with existing Port Orchard lighting systems and community-friendly night scape features.

Costs: \$1.25M

Current Client Contact: Mark Dorsey,
Public Works Director, City Engineer,
360.876.4991



City of Gig Harbor Community Paddlers Dock, Gig Harbor, WA (2015-Ongoing, Phase I Construction Completed in 2019)

DCG's marine team members have extensive experience delivering complex projects with multiple elements of work with multiple phases as shown in our projects at the City of Gig Harbor's Ancich Waterfront Park.

Community Paddlers Dock. DCG's marine team members have extensive experience delivering complex projects with various elements of work with multiple phases as shown in the projects at the City of Gig Harbor's Ancich Waterfront Park. We led all planning, public/stakeholder outreach, engineering, permitting, and management services for multiple projects at the Park.

The Ancich Waterfront Park Improvements and Netshed Rehabilitation Project.

The project consisted of a wide variety of elements, including a full on-site geotechnical investigation and report; vegetative slope, concrete bulkhead, and rain garden; the demolition of creosote-treated timber piles; ground stabilization and contaminated soil removal; stairs for pedestrians to access the beach; and mitigation for wetland impacts. DCG has since monitored the establishment of the mitigation plantings.

The Replacement of the Ancich Pier with Utilities and Fire Suppression.

Development was based on stakeholder visions from a waterfront committee, fishermen, kayakers, and neighbors. Our project team hosted a public open house and twelve presentations to the various stakeholders to select the right concept for the site. Permitting efforts were extensive and included three Army Corps permits, HPA, SEPA checklist, DOE Water Quality Certification, Coastal Zone Management Consistency, Department of Natural Resources (DNR) lease, multiple City of Gig Harbor approvals, Shoreline Substantial Development Permit, and a Shoreline Variance.

The Public Launch Float Project. The project is currently in construction. DCG led all design and permitting for the installation of a new gangway and float system. DCG also led a feasibility study to assess effects of the potential commercial fishing homeport on the site. That project is slated for design in 2022.

WDFW Kenmore Access Project – Boat Launch, Kenmore, WA (2012-2014)

Steve Robert provided engineering services to the WDFW for the widening of an existing boat launch on the Sammamish River in Kenmore. The launch facility provides boater access to nearby Lake Washington. Steve also designed upland facilities at the site, including erosion control, parking area grading, asphalt entrance and turn around, bioswale, filter strip, and two vault toilets. Services included a geotechnical investigation of existing soil conditions for the asphalt structural section and boat ramp foundation.

Steve designed a replacement for the existing boat ramp using WDFW-standard boat ramp planks. Work also included preparation of a plan for the parking lot layout that improves efficiency in launching and retrieval while maintaining ADA accessibility and maximizing parking capacity. Steve also provided engineering assistance during bidding and construction, which was completed in March 2014.

Costs: \$789,000

Current Client Contact: Katrina Knutson,
City of Gig Harbor, Parks Project
Administrator, 253.853.8253



Costs: \$540,000

Current Client Contact: John Hansen,
WDFW, Capital Asset Management
Program, 360.902.8386



Port of Friday Harbor Marina Engineering Services, Friday Harbor, WA (2014-2019)

Steve Robert and Nick Alexander led engineering services for on-call projects for the Port of Friday Harbor. Services included engineering and site planning for the Spring Street commercial site and bulkhead; support for a successful RCO grant for a new activity float; and improvements to D, G, and H floating docks. They also led design and construction support for the activity float and replacement of walers and service pedestals on G and H docks. Tasks also included the M-float bridge replacement, which involved structural design of a new 30-ft gangway installed in 2015.

Steve also led a Level I-II above-water visual and tactile inspection of the main walk pier at the Friday Harbor Marina in July 2017, leading to repair work on four timber piles and the replacement of 14 steel cantilevered beams. Steve also provided grant support for a new access catwalk and kayak launch dock.

HPe provided the electrical design for D, G, and H dock improvements.

Costs: Multiple projects totaling about \$6M

Current Client Contact: Tami Hayes,
Port of Friday Harbor, Harbormaster,
360.298.7742



Port of Bremerton Harper Pier Replacement, Harper, WA (2008-2015)

This project consisted of the reconstruction of the historic pier in Harper, WA. Originally built for Mosquito Fleet steamboats, the pier is now a part of the national water trails system. The pier is over 400-ft in length with a parallel floating dock and gangway. Electrical systems include a pedestal service and low-level LED lighting.

Steve Robert and Nick Alexander led condition assessments, concepts, grant support engineering design, and permitting support for the replacement. The team initially performed a condition inspection of the pier in 2004 and provided design, permit assistance, and construction support for the identified repairs. In 2008, the team performed a condition assessment and provided cost-benefit analysis, permitting support, design, and bid/construction support for cross-bracing repairs. In a 2011 planning study, they developed design concepts for repair/replacement of the pier. The team also supported the Port's successful application for an ALEA grant.

Preliminary engineering design and permitting for replacement of the dock was provided in 2013. The replacement consists of steel ramps with grated, light-penetrating surfaces extending to a 40-ft fishing dock area, with a gangway connecting the pile-supported pier and a float. Construction management services for the project were completed in 2015.

Electrical systems provided by HPe include a pedestal service and low level LED lighting.

Costs: \$2M

Current Client Contact: Kathy Garcia,
Port of Bremerton, Marine Operations
Manager, 360.674.2381



Attachment 3

REFERENCES

Name	Jeff Langheltm
Title	Public Works Director
Firm	City of Gig Harbor
Phone Number	(253) 853-7630
Email Address	LangheltmJ@cityofgigharbor.net

Name	Mike Bell
Title	Project Manager / COR
Firm	National Park Service
Phone Number	415.859.6794
Email Address	Michael_Bell@nps.gov

Name	Mark Epstein
Title	Engineering Project Manager
Firm	City of Bainbridge Island
Phone Number	206.780.3721
Email Address	mepstein@bainbridgewa.gov

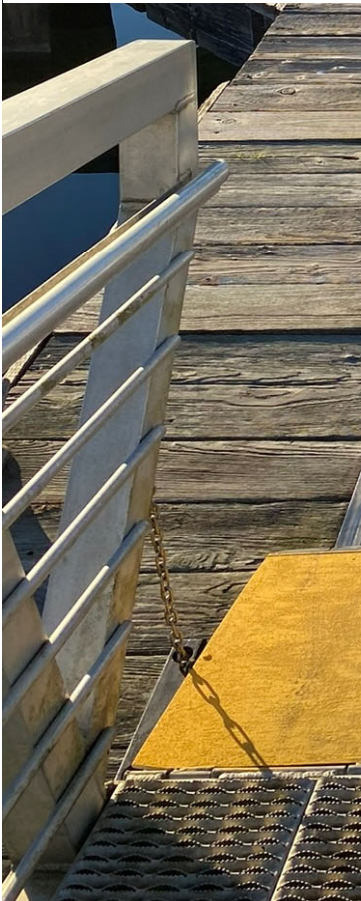
“

*Hey just a note to say good job.
Meetings are well conducted.
Plans set nicely laid out,
clear, concise. Very usable.
Thank you.*

– Mike Bell

”





Marine Engineering Services

Final Engineering and Construction Documents,
For Docks #2, #3, and #4 & Pilings Replacement

January 2022



RE: Proposal for Marine Engineering Services, Final Engineering and Construction Documents for Docks #2, #3, and #4 & Pilings Replacement for City of Depoe Bay

January 14, 2022

Brady Weidner
City Superintendent
City of Depoe Bay
P.O. Box 8
Depoe Bay
OR 97341
info@cityofdepoebay.org

Dear Brady,

Mott MacDonald Group, Inc. (Mott MacDonald) is pleased to present the enclosed proposal to the City of Depoe Bay (City) for Marine Engineering Services, Final Engineering and Construction Documents for Docks #2, #3, and #4 and Pilings Replacement. We recognize this project is important to the City, and we offer our substantial experience in the design and permitting of waterfront structures for your consideration.

As a significant public amenity for the City, the reconstructed docks will be a highly-visible and prominent feature of Depoe Bay Harbor. Having completed conceptual engineering for the City in 2015, Mott MacDonald is familiar with the Dock Replacement Project and its importance. With this background, and the key staff involved to provide continuity, we're ready to complete final design in an effective, efficient, and cost-saving manner.

This can be accomplished by using our previous coastal computer modeling of Depoe Bay Harbor, our experience with the local unique wave climate in the harbor, our understanding of the most beneficial marina layout options for the basin and our extensive experience in robust and durable float design that would be advantageous for long-term, low maintenance operations. In addition, we would work closely with the local stakeholders to verify all parties would be heard and considered in any critical final design decision.

Our office in Portland will serve as the local office for your project, and offers sufficient staff available within the company to meet the schedule this project requires. To strengthen both our resource and experience offering, we have partnered with **GRI**, **Wood Harbinger**, and **AKS Engineering & Forestry, LLC**.

We hope our extensive experience delivering waterfront projects will give you confidence that we can design a resilient group of new floating docks, and also help you navigate the complex regulatory processes required by waterfront development.

Per your request, the proposal package is being emailed to the address listed. We appreciate the opportunity to present our proposal for this project and welcome any inquiries. We look forward with enthusiasm to the opportunity of providing professional services to the City.

Sincerely,
Mott MacDonald Group, Inc.

Mott MacDonald
111 SW Columbia Street
Suite 945
Portland
OR 97201
United States of America

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Project Manager
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Addendum No. 1
Request for Proposals
Marine Engineering Services City of Depoe Bay, OR
January 7, 2022

Final Engineering and Construction Documents for Docks #2, #3, and #4 & Pilings Replacement

The following are questions received regarding the above-mentioned RFP and the City's responses.

Each Proposer must include the attached form acknowledging receipt of this Addendum No. 1. All other requirements of the December 2021 RFP remain in place.

Question 1 – Has the City had permitting conversations with resource and permitting agencies.

Answer 1 – The City has not discussed permitting with resource or permitting agencies.

Question 2 – Item 13 on page 3 of the RFP states, "Final design, permitting applications, and bid documents, etc., is required by July 30th, 2022." Will there be additional time after July 30th, 2022, to address design comments from permitting agencies?

Answer 2 – Item 6 on page 2 of the RFP states, "Identify environmental documentation and permits required, identify agency contacts for permitting; discuss 60% design with permitting agencies and identify any red flags. Prepare permits for review and submittal by City." The City expects agency and permitting coordination will occur as part of the design process. Agency and permitting concerns will be addressed as directed by the City prior to final design.

Question 3 – Has the City conducted Geotechnical studies, and if yes, will those studies be made available to the designer.

Answer 3 – The City has not conducted any Geotechnical studies associated with this project.

Question 4 – Is Mott Macdonald the City's engineer? And if yes, are they precluded from responding to this RFP?

Answer 4 – Mott Macdonald is not the City's engineer. They prepared the conceptual design in 2015. Mott Macdonald is not precluded from responding to this RFP.

Question 5 - Can you please provide via attachment or download link the referenced concept designs and surveys shown at the end of the RFP solicitation?

Answer 5 – Attached documents were sent.

Question 6- Is it possible to provide a copy of the City standard professional services agreement for review? Was there a City preferred float layout (Section 11 of the HMM presentation) or will the new work require assistance with the determining that preferred ADA configuration for the float access layout?

Answer 6- Attached draft PSA. New work will require assistance with determining ADA configuration.

I acknowledge receipt of Addendum No.1 as part of the RFP for Marine Engineering Services for **Final Engineering and Construction Documents for Docks #2, #3, and #4 & Pilings Replacement.**

Conrad Fawcett, CEng, MIMechE,
Greater West Division Manager

Mott MacDonald Group, Inc.
C: 206.495.8137 | conrad.fawcett@mottmac.com

Name (Print)

Firm, Contact Information



Signature

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1. Introduction and project approach

The City of Depoe Bay (City) manages four primary docks in the Depoe Bay Harbor. After our conceptual design study was completed in 2015, the City has secured grant funding to replace three docks (Docks 2, 3, and 4) with modern floats and guide piles meeting current design specifications suitable for the unique conditions in Depoe Bay. The City needs the right design consultant to provide the necessary professional services to update the docks, which are a primary feature of Depoe Bay.

The Mott MacDonald team brings the City

- Unmatched experience in waterfront engineering
- An exceptional history of teamwork and people you can trust
- Excellence that delivers
- On-schedule and on-budget service
- Local content and local understanding

Mott MacDonald Group, Inc. (Mott MacDonald) is recognized as a leader in waterfront engineering with a full spectrum of capabilities, beginning with master planning through design and construction. We have successfully provided these services for marina expansion, maintenance, upgrades, and new construction in a variety of environments. Our regional design experience in waterfront structures, coastal protection, dredging, ports, marinas, and marine infrastructure will help the City meet its goals.

We have developed our technical approach to this RFP by “keeping the end in mind.” Knowing a simple replacement of the damaged docks is not the objective, we have included front-end studies and surveys necessary to:

1. Design a robust, resilient facility with a minimum 30-year design life that accounts for the unique local wave conditions.
2. Provide berth space for a mix of commercial and recreational vessels as directed by the City.
3. Meet local and regional permitting requirements for floats and piles.
4. Design to maximize improvements with the available funds by reusing good existing infrastructure and reducing noncritical elements in the design.

We have the knowledge and experience to deliver innovative, cost-effective, and resilient solutions to some of the most challenging projects. We offer the full range of services needed to plan, design, and manage the project efficiently and effectively, saving our clients time and money.

We believe that our team is the most qualified firm for this project and offer you multiple benefits:

Unmatched experience in waterfront engineering. Our dynamic team of marine engineers, coastal engineers, civil, structural, geotechnical, hydraulic, mechanical, and electrical engineers, and permit consultants are well equipped to provide quality services to deliver this project. Mott MacDonald engineers specialize in design and permitting of structures for coastal and riverine settings, navigation channels, boating facilities, marine terminals, and marine and wetland habitat. Mott MacDonald engineers perform feasibility studies, preliminary engineering and final design which includes plans and specifications, cost estimates for bidding and construction, bidding phase assistance, value engineering, construction oversight, and post-construction project monitoring.

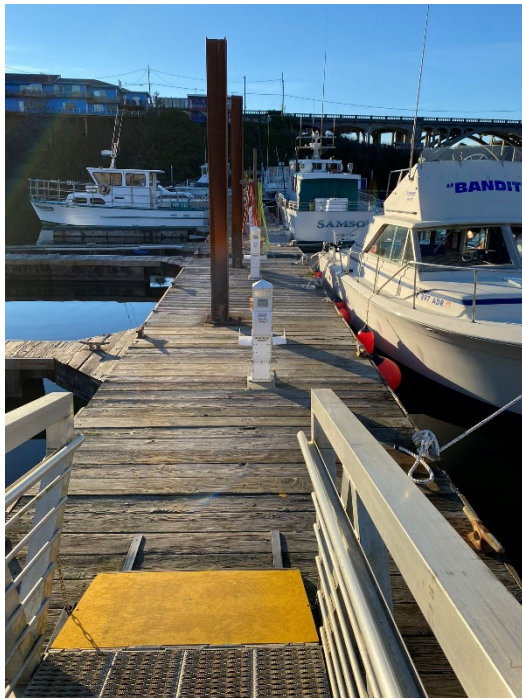


Existing Docks in Depoe Bay Harbor

An exceptional history of teamwork and people you can trust. The Mott MacDonald team has outstanding working relationships with the regulatory agencies that will have approval authority. We bring experience with similar clients and on similar projects, including multiple on-call contracts with federal, state, and county agencies to provide municipal and coastal engineering, architecture, navigation, boating, park design, and recreational facility design.

Excellence that delivers. With over 80 coastal and marine structural professionals across the US, our team has the staff to address every design challenge. As the [Project Manager, Scott McMahon, PE, ENV SP](#), will direct the effort of this project. Scott is a Principal Project Manager in Mott MacDonald's Ports, Coastal, and Offshore Practice with more than 25 years of civil and structural engineering experience. He is a professional engineer licensed in the State of Oregon. He will bring a fresh set of eyes to this project not having been involved in the 2015 concept design.

Supporting Scott will be [Project Engineer/Engineering Lead Evan Edgecomb, PE](#). Evan was the Lead Engineer for the development of the City's Conceptual Engineering Study in 2015 for Replacement of Docks 2, 3, and 4, and will bring the historical knowledge gained on that project forward to the final design activities. Evan has extensive experience providing engineering services for a wide variety of waterfront structures. Scott and Evan are supported by our specialty subconsultant partners, who are leaders in their respective fields. Our team includes, [Geotechnical Engineering Lead, Scott Schlechter \(GRI\)](#), [Permitting Lead, Julie Wirth-McGee \(AKS Engineering & Forestry\)](#), and [MEP Engineering Lead, Peter Lekhakul \(Wood Harbinger\)](#). This group of individuals have a history of working together on many successful waterfront projects.



Existing dock

On-schedule and on-budget service. Our team is ready to work collaboratively with City staff to provide the utmost quality service and deliverables for this project. The cost proposal in this submittal is based on our understanding of the RFP and draft agreement. We would be glad to meet with your selection committee to clarify any areas of the cost proposal, schedule, or scope that require adjustment.

We realize project budgets and schedules are of critical importance to the City and that, if selected, Mott MacDonald employs an in-house quality control system that verifies our ability to meet schedules within the established budget for this project.

Local content, local understanding. Our proposed team are located in the Pacific Northwest and have a strong understanding of the engineering and permitting challenges in the area. Mott MacDonald welcomes the opportunity to support the City on this project. To assist you in the execution of your project, we are pleased to offer our experience and services as described in the following sections of this proposal.

1.1 Project approach

The Mott MacDonald team knows how to execute this type of project, having completed similar dock replacement projects throughout the Northwest. The following outlines our proposed scope of work and approach, organized by tasks as shown in Table 1 of the RFP. Some scope activities are combined to conform to the tasks shown in Table 1.

Pre-Design Activities

Task 1: Project Kick-off and Data Collection

Key personnel will attend an in-person project kick-off meeting with City staff and harbor restoration steering committee members to review, discuss, observe, document site conditions and review project goals, and understand local conditions, constraints, and concerns. Input at this stage is beneficial in developing design criteria and to better understand operational and maintenance goals and understand any desired changes from the 2015 conceptual design effort.

Data Collection

Mott MacDonald will perform a site reconnaissance and collect and review other existing information and data, City-provided data (hydrographic surveys, construction drawings, permits, as-built drawings, geotechnical data, maintenance records), and other applicable available public data.

We will develop plans to obtain one upland boring (near the boat launch) to develop geotechnical design criteria and confirm expected pile driving conditions. Due to the compressed design schedule, early planning and implantation of the geotechnical work is needed to inform the design. The field investigation and any laboratory testing would comprise the basis of the geotechnical report.

We will collect additional topographic and hydrographic survey data to support development of the permit documents and design.

Task 2: Design Criteria and Recommendations for Updates to Conceptual Design

We will review the conceptual design and the information developed from the project kick-off to evaluate whether incorporating any proposed changes is warranted to meet the project goals and criteria.

We will develop a draft design criteria document to summarize the approach to the items above and that will guide the project development. This will include recommendations for any changes to the conceptual design to carry forward. The design criteria and recommendations for the conceptual design will be submitted for review and approval by the City and the harbor restoration steering committee. We will present the document at an in-person public meeting and solicit feedback.

Design

Task 3: Conceptual Design Update

Once feedback on the revised concept design recommendations is received, Mott MacDonald will update the concept plans. Schematic level details will include an overall plan, and typical float plans, sections, and details for the preferred design approach. The updated plans will be submitted for concurrence from the City and harbor restoration steering committee prior to advancement to the 60% design stage. We will be available to attend a public meeting (via zoom) to discuss the conceptual design update.

Project goals and criteria

- Marine/coast environmental conditions – corrosion, wave action, tides.
- How the docks design is appropriate to withstand year-round conditions.
- Replacement of existing H pilings with round pilings, replacement of finger piers, and replacement of utilities (i.e., water and electrical).
- Finalize marine layout to best optimize future use.
- ADA requirements.
- Re-use (or not) of existing gangways.
- How new docks tie into existing facilities such as the seawall, gangway connections, and utilities.
- Adaptability of final design for future expansion.
- Resiliency of design to tsunami hazards.

Task 4: 60% Design

Development of 60% design details for the purpose of developing permit plans will be completed. The purpose of this is to conduct engineering analysis and design of the updated conceptual design to a level suitable for submittal of permits. A subset of plans will be prepared and assembled in US Army Corps of Engineers (USACE) 8.5"x11" format. Permit (JARPA) drawings would include a vicinity map, existing and proposed site plan, and typical cross-sections and details. A technical description of the proposed project will be developed for use in development of regulatory permit application documents. It is assumed that permitting work will be based on the 60% design and be updated as 100% design plans are developed.

The 60% (JARPA) plans, outline technical specifications, and cost estimate will be submitted to the City.

Task 5: Maintenance Schedule and Costs

Based on the 60% design, we will develop an anticipated maintenance/replacement schedule with an estimate of costs over the life of the facilities.

Task 6: Regulatory Permitting

The purpose of this task is to identify the permits and any associated environmental documentation to construct the project, and to highlight any red-flags that could affect the permits and permit timelines. The task also includes agency coordination and preparation of permit applications and documents for review and submittal by the City.

To streamline the permitting process for this project, our team will schedule a brief field visit shortly after Notice to Proceed (NTP) to confirm that no special aquatic sites are located within the project area, and to conduct any necessary survey work that will be needed to prepare the required permit documents. Anticipated survey work includes hydrographic survey, as necessary, to supplement the existing US Army Corps of Engineers (USACE) survey data, and topographic survey to tie the three docks, and each piling along those docks, as well as the adjacent seawall. Survey base drawings (CAD files) will be assembled for use in preparing the permit application figures and design files. We will also initiate coordination with all agency staff early in the project to help our team successfully and efficiently navigate the various approval processes.

Our goal will be to design the project, to the most practical extent, to meet the project design criteria outlined in the 2012 Standard Local Operating Procedures for Endangered Species (SLOPES) IV In-water Over-Water Structures Programmatic Biological Opinion. Early coordination with National Marine Fisheries Service (NMFS) staff will be critical to determine if NMFS will allow Endangered Species Act (ESA) coverage for this project under SLOPES IV. Based on the conceptual designs provided, the existing gangways are not far enough from the shoreline (50 feet), and the proposed replacement floats exceed the maximum area (400 square feet) allowed under SLOPES IV. As a result, we anticipate the project will require formal consultation with NMFS, which will necessitate the need for a Biological Assessment to be prepared that documents the

Anticipated agency coordination

Based on the nature of the project, it is anticipated that the following Oregon Department of State Lands (DSL) and USACE authorizations will be required (agency/current agency contact noted in parentheses).

- Individual Removal Fill Permit (DSL/Carrie Landrum)
- Nationwide Permit 9 (USACE/Katharine Mott)
- Section 10 Permit (USACE/Katharine Mott)

Anticipated state/federal coordination

We anticipate the attainment of the required state and federal authorizations for this project will require the preparation of the following permit documents for submittal by the City:

- DSL/USACE Joint Permit Application
- Waters Functional Assessment (Pre- and Post-Construction Assessments)
- Coastal Zone Management Act Consistency Documentation
- NMFS Biological Assessment
- DSL Easement Application

project's effects on ESA-listed species. The need for formal consultation will lengthen the USACE permit review process considerably and could affect the project's construction schedule.

In addition to securing state and federal authorizations for this project, our team will coordinate early with City and/or County Planning Departments to identify all required local permits that need to be obtained for this project.

Task 7: Final Design

This task includes preparation of 100% final design documents (plans, technical specifications, and cost estimate). Final engineering design and plans will focus on the type, size, and alignment of the project features. The float system design criteria will be specified for a performance-based contractor design.

Once reviewed by City staff and the harbor restoration steering committee, we will participate in a review meeting (via Zoom) to receive any comments on the documents prior to preparation of bid documents (see Task 8).

The Mott MacDonald team will participate in a City Council Meeting (via Zoom) to answer questions about the final design, cost estimate, and construction documents.

Task 8: Bidding Documents

We will draft a request for bids for construction services and provide to the City for review and publication.

Mott MacDonald will prepare a request for bids along with final bidding documents that incorporate City-provided contract documents with the technical documents. The bid documents typically provided by Mott MacDonald include the bid form, qualifications requirements, technical specifications, construction drawings, and other technical information required for soliciting proposals from contractors and float manufacturers. The focus for development of bid documents will be to produce a clear and comprehensive scope of work so that all bids and proposals are comparable. The contract documents will provide some flexibility to propose alternate items and associated costs. Mott MacDonald will develop requirements for bidding qualifications and experience criteria to aid in evaluation of cost proposals. Contract documents will include instructions to bidders, bid form, and other contract requirements.

Bidding Support

Task 9: Bidding Support

During bidding, we will assist the City in responding to contractor inquiries. Once the bidding has closed, we will assist the City by reviewing contractor bids to select the best qualified bidder for the project.

2. Cost of services per task

Table 2.1 on the following page shows the anticipated cost of services per task identified in the RFP. The costs in this proposal are based on our understanding of the RFP as well as responses to questions shown in Addendum 1 and is meant to provide the City with an estimate to be finalized upon completion of negotiations with the City and agreement on the final scope of services and contract terms & conditions. We would be glad to meet with your selection committee to clarify the scope, schedule, and costs.

Table 2.1: Cost of services per task and as a total bid, per RFP Table 1

Task #	Summary	Anticipated completion date	Cost
1	Kick-off meeting and data collection (Kick-off meeting, in-person meeting)	2/15/2022	\$41,000
2	Design criteria and recommendations for updates to conceptual design (Recommendations/with narrative, in-person meeting)	3/1/2022	\$15,500
3	Conceptual design update (Provide updated design for concurrence-public meeting)	3/15/2022	\$15,100
4	60% design	4/12/2022	\$123,800
5	Maintenance schedule and costs (Anticipated maintenance schedule costs)	7/30/2022	\$5,400
6	Regulatory permitting (Prepare permits for submittal)	7/30/2022	\$103,400
7	Final design – 100% design, cost estimate, prepare construction documents, public meetings via zoom (with City staff, harbor restoration committee, City Council to review)]	7/30/2022	\$134,400
8	Bidding documents (Prepare RFB for City distribution)	TBD	\$9,600
9	Bidding support (Assist with review of bids)	TBD	\$6,000
		TOTAL	\$454,200

Assumptions were made in developing the cost and schedule. These assumptions are identified in Attachment 4.

3. Cost of direct expenses

Attachment 5 provides a full cost summary and hourly breakdown by task and individual to complete the proposed scope of work as it is understood from the RFP. All anticipated expenses are included in these totals.

4. Project schedule

The high-level schedule shown in **Table 4.1** on the following page was prepared with the goal of meeting the July 30, 2022, target date for completion of the final plans.

Assuming a NTP around February 7, 2022, we anticipate the following approximate timeline. The bidding and construction phase is contingent on progress of permitting and may need to start after initial regulatory agency reviews of permit application documents. Permit outcomes cannot be guaranteed and will have a large influence on the overall project schedule. Grant funding requirements may also influence the final schedule. Timelines assume a City review period of one week.

Table 4.1: Proposed high-level project schedule

Deliverable	Anticipated date
In-person kick-off meeting and site reconnaissance	February 15, 2022
Field work	February 15 – February 28
Develop recommendations for updated conceptual design/hold-in person public meeting	March 1, 2022
Initiate early agency coordination	March 7 – March 18
Prepare updated conceptual design	March 15
Begin preparing permit documents	March 15 – July 30
Complete 60% design and cost estimate	April 12, 2022
Additional agency coordination effort	April 12 – April 30
Prepare permits for submittal	July 30, 2022
Complete 100% design and cost estimate	July 30, 2022
Prepare Request for Bids	TBD/when permits are received

5. Capacity and capability of firm

The Docks 2, 3, and 4 Replacement Project requires a qualified and experienced team ready to tackle the unique conditions found on the Oregon coast. Mott MacDonald has assembled a highly capable team of firms and individuals with experience designing and permitting similar facilities. By partnering with **GRI**, **Wood Harbinger**, and **AKS Engineering & Forestry, LLC (AKS)**, the Mott MacDonald team brings the vision and experience to deliver this project to the City.

We can provide the technical services required to complete final design and permitting of the Docks 2, 3, and 4 Replacement Project. Mott MacDonald will manage the project and provide coastal, marine, and civil engineering services; GRI will provide geotechnical engineering services; Wood Harbinger will be responsible for MEP engineering, and AKS will support survey and permitting needs.



Figure 5.1: The Mott MacDonald team

Mott MacDonald's North America Ports and Coastal Practice

Group offer specialty engineering consulting services in planning, modeling, analysis, design, and construction management in the disciplines of coastal, hydraulic, and marine engineering pertaining to ports, marinas, and parks. We have extensive engineering experience in boating and recreational facilities in coastal environments, lakes, reservoirs, rivers, and large water bodies.

Mott MacDonald engineers specialize in analysis of physical processes and design of marine facility projects. Serving public and private clients, we provide comprehensive marine design services from planning and feasibility studies to final engineering design and construction administration, with specialized experience in boating facilities; ports; harbors; marinas; navigation facilities, including piers, floats, launches, breakwaters, and shoreline stabilization; coastal processes analysis and modeling, and coastal hydraulics and geomorphology. Mott MacDonald is widely recognized for technical excellence in applying scientific analysis to evaluate shoreline conditions and design cost-efficient and permissible actions. Our staff have completed numerous boating facility projects over the past five years.

Mott MacDonald's relevant experience includes:

- Marinas, boating facilities
- Pier, dock, and float design
- Data collection and analysis
- Sedimentation analyses
- Hydraulic engineering analyses
- Public involvement
- Dredged material management
- Construction cost estimates
- Conceptual, preliminary, and final engineering design
- Permitting support
- Grant funding and management
- Drawings, specifications

Mott MacDonald's size and staff breakdown

350+ employees among 10 offices along the US West Coast

2,400 employees throughout North America

We have in-house capability in all major disciplines, and our team members will deliver the appropriate staff to effectively execute this project.

Geographic location

Mott MacDonald's team will be staffed with engineers from our [Portland](#) and [Seattle](#) offices. Our Portland office is [approximately two hours from Depoe Bay](#).

[GRI](#) provides full-service geotechnical engineering, pavement engineering, geologic, and hazmat solutions for challenging projects throughout the Pacific Northwest, and waterfront projects are one of GRI's core business practices. GRI has provided consulting services for the City and has provided geotechnical services for several waterfront infrastructure projects along the Oregon Coast.

[Wood Harbinger](#) is an employee-owned, multidisciplinary engineering consulting firm, whose team includes MEP and fire protection engineers, accomplished information and communication technology consultants, and experienced commissioning providers. The firm works in multiple market sectors across the Pacific Northwest, including marine, transportation, civic, military, healthcare, and education projects. Their project experience spans from adding a single receptacle to renovating complex utility infrastructure in critical 24/7 facilities and campuses.

[AKS Engineering & Forestry, LLC \(AKS\)](#) is a Northwest-based, multidisciplinary consulting firm that has been providing services to municipal and private clients for 25 years. Their professionals provide civil natural resources, water resources, engineering, surveying, land use planning, landscape architecture, consulting arborist, forestry/forest engineering services, construction support services, and GIS services. AKS' natural resources team consists of six specialists, including multiple certified PWS. Their team of natural resources professionals provide the full suite of services required for the preparation of USACE and Oregon DSL joint permit applications (JPAs), compensatory wetland stream mitigation plans, wetland and water delineations, SLOPES compliance documentation, wildlife studies, and biological assessments.

5.1 Knowledge of design or techniques specific to conditions found on the Oregon coast

Design and permitting for infrastructure projects along the Oregon coast require a deep understanding of complex conditions affecting the project site, including proximity to ocean conditions such as winds, waves, and potential for tsunamis, high seismicity, and saltwater corrosion effects. Our team includes highly qualified technical professionals with considerable experience designing in conditions like those found in Depoe Bay.

Our coastal engineers have studied the Depoe Bay site and have completed site hydrodynamic studies to understand



Existing docks

wave conditions, currents, and tides as part of the conceptual design. Our structural and MEP engineers have experience designing infrastructure in a corrosive environment, specifying materials suitable for conditions. Our geotechnical engineers are recognized for their work on structures along the coast, and have experience providing design recommendations to address site seismicity as well as pile installation requirements. Lastly, our permitting team knows how to take designs that the engineers develop and successfully permit coastal projects.

6. Firm and project manager past performance

The Mott MacDonald team includes experienced firms and professionals dedicated to successful completion of the project. Our project experience demonstrates our commitment to well-managed projects that meet the needs of our clients. Educational and professional records of performance of our **Project Manager, Scott McMahon, PE, ENV SP**, and key personnel are included in **Attachment 1**.

Effective project management requires an organized team providing all needed services that is well-coordinated and focused on the project functioning as a full partner with the City. Since successful delivery of the replacement docks requires input from engineering, environmental, operational, grant management, and construction team members, the City, and the harbor restoration steering committee, it is critical all involved act as one delivery team. Central to our approach is to maintain clear and frequent communication, so all team members and external partners understand decisions made so everyone can act in concert.

6.1 Cost control

Two key elements for budget management are a clear scope of work and frequent monitoring of progress against budget. We will work closely with the City during the scoping phase to verify each negotiated task will have clearly specified deliverable product, schedule, and budget. Our financial management system was designed specifically to integrate time tracking and expenses for invoice production and provide for financial control information in relation to time. Invoicing will be tailored to meet the City's requirements. We track our internal budget progress weekly for each task to verify timely feedback of cost relative to work completed and require monthly invoicing of our subconsultants to maintain a review of work performed relative to budget expended.

Mott MacDonald verifies travel, lodging, and per diem expenses are as low as possible for our projects. We have had good success with reducing the need for travel to site by verifying a detailed Basis of Design document is established at the beginning of the project. In addition, we have found in previous projects, that interim meetings and presentations can be successfully achieved through web-based meetings.



We are proud to be fully certified under the ISO 9001:2015 standard – the international standard for quality management. Mott MacDonald has continuously held this certification throughout our international business for 18 years.

6.2 Quality control

Project management, safety, and quality management are synonymous terms to Mott MacDonald. Mott MacDonald's ISO 9001 compliant Business Management System (BMS), STEP, sets out rigorous project controls on each of our projects so that our approach to quality management is consistently implemented. Our commitment to quality is identified in our requirement standards, which detail internal work instructions for use by employees to verify that we meet our quality, health and safety, internal governance, and risk management standards.

Rather than adding an overlay of checking and record keeping resulting in additional cost to our clients, our STEP enhances our work by establishing guidelines and procedures for project management that verify a quality product is delivered on time and within budget. Our team will implement discipline-specific QA/QC processes to provide reliable and accurate plans. Management of the quality control process will be the responsibility of [Evan Sheesley, SE, PE, ENV SP](#), who has 15 years of experience in structural engineering and waterfront development. He will provide technical reviews of the project deliverables and independent guidance on structural elements of the design. Our general approach to quality management is as follows:

- Establish standard procedures and guidelines that lead to a quality product.
- Maintain a top quality, trained staff to carry out the work, and routinely train both Mott MacDonald and teaming partners to our quality plans, policies, and procedures.
- Select a competent team for each project with the responsibility to carry out the work in accordance with our quality policy.
- Provide regular quality checking of the product within the project team.
- Review quality procedures on projects by means of regular internal audits.

6.3 Ability to meet schedules

After developing a draft scope, budget, and deliverables, we will create a detailed master schedule timeline for the work and submit to the City for comment. Mott MacDonald will actively maintain the project schedule and submit schedule updates to the City on a monthly basis. [Project Manager Scott McMahon, PE, ENV SP](#), will work directly with our Technical Leads to update the schedule to measure progress and to assess any critical path issues. Deliverables will be monitored weekly to track progress relative to the project schedule.

6.4 Management approach to project administration

Mott MacDonald has delivered similar projects, and has consistently demonstrated the ability to complete design projects on schedule and within budget. Managing both in-house staff and subconsultants who are responsible for the technical execution of task elements is critical to successfully completing a project. [Project Manager, Scott McMahon, PE, ENV SP](#), will control the day-to-day work setting of engineers in his charge and subconsultant leads so staff time is productive in moving the task toward the targeted endpoint. Smooth project completion within the schedule and budget begins with a clear understanding of the level of detail that is needed in deliverables. We also understand that project success will depend on managing the project to meet grant requirements and understanding what keeps the project grant-eligible through construction.

We have provided specific project experience of past performance for Mott MacDonald and our teaming partners are included in Attachment 2. References for Mott MacDonald are included within Attachment 3.

Attachment 1. Resumes

The following resumes present our team's educational and professional records, and are organized as follows:

- Scott McMahon, PE, ENV SP, Project Manager
- Evan Edgecomb, PE, Project Engineer/Engineering Lead
- Aaron Porter, PE, Coastal Engineering Lead
- Evan Sheesley, PE, SE, ENV SP, QA/QC
- Julie Wirth-McGee, PWS, Permitting Lead
- Scott Schlechter, PE, GE, D.PE, Geotechnical Engineering Lead
- Peter Lekhakul, PE, LEED AP BD+C, MEP Engineering Lead



**Scott McMahon,
PE, ENV SP**

Project Manager

Personal summary

Firm:

Mott MacDonald

Education:

MS, Civil Engineering,
University of Notre
Dame, 1997

BS, Civil Engineering,
University of Notre
Dame, 1997

Registrations:

Professional Engineer
PE, OR #71234
PE, IN #10001113
PE, WA #38635

Envision Sustainability
Professional, OR, 2016

Years of experience:

29

Scott has extensive experience in the analysis, design, construction, and management of civil, transportation, and structural engineering projects. His background includes experience in several disciplines such as roadway design, transportation structure design, waterfront and marine structure design, structural condition assessments, bridge load ratings, and cost estimating. Scott's involvement in projects includes concept development, design and analysis, preparation of construction documents, construction support services, and project management.

Selected projects

Boyer Park Marina Improvements, Whitman County, Colfax, WA: Project Principal providing independent oversight to the project team for delivery of this marina improvement project. Provided reviews of technical documents and participated in client coordination meetings. (2021 – 2022)

Jackson County Oregon Howard Prairie Resort Marina Engineering Services, Jackson County Oregon, OR: Project Principal. Project elements include a float and anchor system; wave attenuator; nearshore dredging; gangways; bulkheads and shore protection; fueling system; electrical system; sewage pumpout system; potable water system; upland paving, striping and signage for ADA compliance and repair. Deliverables include plans (drawings) and technical specifications with focus on the type, size, alignment, and materials requirements for the project elements. Currently providing construction engineering support for the marina. (2021 – 2022)

Port of Portland Civil Engineering On-Call, Port of Portland, Portland, OR: Contract Manager responsible for an engineering on-call with tasks including site investigations, feasibility studies, life-cycle cost analysis, project planning and development, permitting support cost estimating, and scheduling. Management activities included subcontractor management, financial reporting, DBE reporting, and identifying/assigning staff for task orders.

Port of Portland Marine Planning On-Call, Port of Portland, Portland, OR: Contract Manager responsible for an on-call marine facility operations, design, and planning contract for the Port of Portland. Management activities included subcontractor management, financial reporting, Disadvantaged Business Enterprise reporting, and identifying/assigning staff for task orders.

Berth 4 (Low Dock) Dock Repair and Pile Replacement, Port of Vancouver, Vancouver, WA: Project Manager responsible for the inspection and limited load rating of the timber wharf at the Berth 4 Low Dock for the Port of Vancouver. An assessment of the general condition of the structure was made through a topside and underdeck inspection, including dive inspection of the piles. (2019 – 2020)

Terminal Rehabilitation and Improvement Program, Port of Vancouver, Vancouver, WA: Contract Manager responsible for a multi-year program to modernize and maintain the marine terminals at the Port of Vancouver. The program included design, engineering, permitting support, bidding support, and construction management services. Activities included management of contract financials, quality assurance, subconsultant management, and assigning task order staff.

New Berth 601 Breasting Dolphin, Port of Portland, Portland, OR: Project Manager responsible for the planning, design, and permitting of a new breasting dolphin and pile repairs at Terminal 6, Berth 601 for the Port of Portland. The new dolphin was designed to protect the floating dock from damage from vessel

mooring and berthing and is connected to the floating dock with a new catwalk. Damage to existing dolphin structural and fender piles was evaluated and repair alternatives were developed. Project included repairs to the timber rubrail located on the face of the floating dock. Environmental permit documentation was included. (2019 – 2020)

Berth 410/411 Repairs, Port of Portland, Portland, OR: Project Manager responsible for rehabilitation of Berths 410 and 411, demolition of Building 521, and other miscellaneous site improvements at Terminal 4 for Port of Portland. Project included above and below deck inspection, repair of timber and concrete elements, and paving of the concrete deck at the wharf structures, installation of a sump pump and drain to the existing sanitary system, and demolition of a concrete building. Work was completed while keeping the terminal operating, requiring a construction phasing plan that did not interrupt tenant operations. (2017 – 2019)

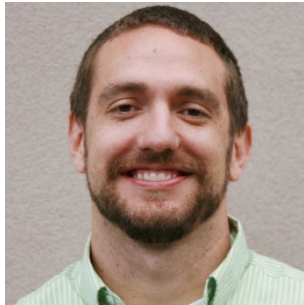
Cedar Creek River Access Ramp Replacement Study, PacifiCorp, Clark County, WA: Project Manager responsible for conceptual site design and cost estimate development for the replacement of an existing boat launch facility located on the North Fork Lewis River near Woodland, Washington, for PacifiCorp. Documented and evaluated the existing site conditions, including two launch ramps and a gravel parking lot. Developed three high-level conceptual replacement and repair plans and rough order-of-magnitude cost estimates to evaluate options. Recommended additional studies to support project development and selection of a preferred alternative. Deliverables included a preliminary concept report that summarized findings and cost estimates. (2016)

Marine Terminal Review Task 1A, Port of Vancouver, Vancouver, WA: Project Manager responsible for a rapid visual inspection of Terminal 2, Berth 1 for the Port of Vancouver. Conducted a site visit for structural observation and assessment of damage due to an impact from a tug. Provided assessment on extent of damage to the dock and the effect of the gravity load and mooring capacity. (2013)

Strategic Business Plan, Port Orford, OR: Structural Engineer responsible for the review of available technical reports and drawings, providing facility condition assessments, and identifying existing public facility deficiencies and planned improvements to Port Orford-owned facilities. Prepared a facilities assessment technical memorandum, and developed costs estimates for capital improvement projects. (2013)

Strategic Business Plan/Development Planning, Bandon, OR: Structural Engineer responsible for the review of available technical reports and drawings, providing facility condition assessments, and identifying existing public facility deficiencies and planned improvements to Port-owned facilities. Prepared a facilities assessment technical memorandum, and developed costs estimates for capital improvement projects. (2013)

Finger Pier and Mooring Dolphins Preliminary Engineering and Final Design, Teevin Bros., Rainier, OR: Project Manager responsible for the development of a privately owned barge loading facility on the Columbia River for Teevin Bros. Managed the overall design and permitting process for a 125-foot-long steel sheet pile dock and six, five-pile mooring dolphins. Worked with the Owner's contractor to develop plans and construction schedule to best fit the in-water work window. Developed modifications to an existing environmental mitigation site to meet permit agency requirements. (2012 – 2014)



Evan Edgecomb, PE

Project
Engineer/Engineering
Lead

Personal summary

Firm:

Mott MacDonald

Education:

BS, Civil Engineering,
Washington State
University, 2007

Registrations:

Professional Engineer
WA #48803, 2011

Years of experience:

15

Evan has 15 years of structural engineering and project management experience with a specialty in waterfront structures. He has performed condition assessments, repair design, structural computer modeling, preliminary and final engineering analysis and design, cost estimating, permit document creation, project management and construction administration tasks for a wide variety of projects. Projects have included locations in the US and abroad at marinas, ports, marine terminals, state parks, airports, and highways.

Selected projects

Depoe Bay Harbor, City of Depoe Bay, Depoe Bay, OR: Project Engineer. The City of Depoe Bay was planning to replace three of their four docks (Docks 2, 3 and 4) in Depoe Bay Harbor that were constructed in the 1950s and are composed of timber creosote floats that are supported by steel H piles. Worked on an alternatives analysis looking at the unique constraints of the harbor to create several different dock replacement options, and developed construction costs associated with each concept design option. (2015)

Boyer Park Marina Improvements, Whitman County, Colfax, WA: Project Engineer, provided engineering services for the assessment and preliminary and final engineering design of new replacement marina floats. The project also includes the rehabilitation of existing concrete floats. He supported the project in determining requirements for replacement floats including structure repair and replacement of other various marina elements. He helped develop technical specifications, construction level drawings and construction cost estimates for improvements. (2019 – 2022)

Jackson County Oregon Howard Prairie Resort Marina Engineering Services, Jackson County Oregon, OR: Project Manager. Engineering assessments, analysis and final design for a new marina facilities at Howard Prairie Resort Marina. Project elements include a float and anchor system; wave attenuator; nearshore dredging; gangways; bulkheads and shore protection; fueling system; electrical system; sewage pumpout system; potable water system; upland paving, striping and signage for ADA compliance and repair. Tasks include a site visit; data collection; conceptual, preliminary and final engineering design; permitting assistance; and construction administration. Deliverables include plans (drawings) and technical specifications with focus on the type, size, alignment, and materials requirements for the project elements. (2017 – 2022)

Grant PUD Crescent Bar Island Permitting, Design and Construction Support, Grant County PUD, Grant County, WA: Project Engineer. This \$15 million recreational facility development project consists of marine, civil and architectural design elements and standards. The project was conducted in multiple phases. Evan provided construction engineering support for Phase 1 and completed the permitting, design, and construction support of the Phase 2 elements which included a new boat launch facility. The existing boat launch area will be rebuilt and with a double lane boat ramp. Tasks include developing a basis of design, preliminary, permitting and final engineering design, and preparation of technical specifications construction drawings. (2014 – 2017)

Cornet Bay Marina Replacement, Washington State Parks, Whidbey Island, WA: Project Manager. Mott MacDonald staff completed engineering tasks to assist WA State Parks in design, permitting, and construction support of the marina replacement at Cornet Bay. Work included condition assessment,

engineering analysis, permitting, preliminary and final engineering design for in-water improvements. Facility elements include piers, piles, gangways and mooring floats. Evan completed the above tasks as the primary design engineer from the start of design through final design. (2015 – 2022)

James, Doe, and Matia Island, Washington State Parks, San Juan Islands, WA: Project Manager. Mott MacDonald staff completed engineering and construction support tasks to assist WA State Parks in design, permitting, and construction support of various marine facilities in the San Juan Islands. Work included condition assessment, engineering analysis, permitting, preliminary and final engineering design, and construction support services for in-water improvements at James Island, Matia Island, and Doe Island recreational facilities. Facility elements include piers, piles, gangways and mooring floats. Evan completed the above tasks as the primary design engineer from the start of design through construction. (2015 – 2019)

Harry Todd Park Improvements, Robert W Droll Landscape Architects, City of Lakewood, Lakewood, WA: Project Manager. Waterfront Park improvement project in the City of Lakewood on American Lake consisting of replacement of an existing soldier pile bulkhead with a new precast concrete block wall set back 15ft from shoreline, replacement of 3 hand carry boat facility gangway and float systems, new concrete ADA beach ramp system, swim beach restoration, new fishing pier and new upland ADA access pathway with precast concrete block retaining wall system. Conducted a site assessment, alternatives evaluation, preliminary and final engineering design and construction support for each of the components. (2019 – 2021)

Marina Improvements, Port of Poulsbo, Poulsbo, WA: Project role. Completed final design and compiled bid documents for a marina improvement project at the Port of Poulsbo primary marina facility. The work included the design of steel marina pile replacement for old timber dolphins and piles. Analysis, design, and plans were also completed for the breakwater bracing and reinforcement of an existing timber breakwater. This bracing included new steel plumb and batter piles with a steel cap. (2014 – 2015)

Cascade Lake Float Replacement and Improvements, Washington State Parks, San Juan Islands, WA: Project Manager. Mott MacDonald staff completed engineering tasks to assist Washington State Parks in design and permitting float improvements on Cascade Lake on Orcas Island. Facility elements include a fishing float, in-water anchors and a new gangway. Evan completed the above tasks as the primary design engineer from the start of design through final design. (2018 – 2020)

Stuart and Sucia Improvements, Washington State Parks, San Juan Islands, WA: Mott MacDonald staff completed engineering tasks to assist WA State Parks in design and permitting of various moorage facilities in the San Juan Islands. Work included condition assessment, engineering analysis, permitting, and preliminary engineering design for in-water improvements. Facility elements include piers, piles, gangways and mooring floats. Evan, Project Manager, completed the above tasks as the primary design engineer. (2018 – 2022)



Aaron Porter, PE

Coastal Engineering
Lead

Personal summary

Firm:

Mott MacDonald

Education:

MS, Civil Engineering,
Oregon State University,
2012

BS, Civil Engineering,
Oregon State University,
2009

Registrations:

Professional Engineer
CA #83043, 2014

Years of experience:

10

Aaron is a coastal engineer with 10 years of experience in civil and coastal engineering. His experience includes the design, rehabilitation, and construction of coastal beaches and structures, the application of numerical wave and flow modeling, subsea routing and landfall of power cables, offshore wind port assessments, and marine environment feasibility studies. Aaron has experience in projects throughout the US and abroad, which include scour analysis, dredging and sedimentation analysis, marine navigability, shore protection, meteorological and hydrological studies, small craft marinas, breakwaters, and flood modeling.

Selected projects

Sunland Estates Shoreline Access Guidance, Grant County PUD

Recreation Resource Management Plan, Grant County, WA: Project Engineer. Aided in development of a Public Recreation Development Plan (PRDP) intended to integrate adequate public access and public recreation development with preservation and enhancement of natural and cultural resources while meeting the goals and policies of the Shoreline Management Plan (SMP). He evaluated site conditions and physical processes, conducted a literature review, developed general shoreline guidance for different access types, and provided recommendations on mitigation alternatives. (2012 – 2014)

Lake Sammamish State Park Wave Analysis, Robert Droll & Associates,

Lake Sammamish, WA: Project Manager, conducted a concept-level hydraulic and coastal engineering assessment of a new pier and floats at Lake Sammamish State Park. He provided recommendations on float layout and orientation, pier abutment design, and breakwater performance. He assessed the potential impact of the breakwater and floats on the nearby beach. He evaluated recreational vessel wake hydraulics and impacts on the float and pile system. (2017)

City of Ocean Shores Shoreline Stabilization (Geotube) Repair, City Ocean

Shores, Ocean Shores, WA: Project Manager for the Geotube Repair project constructed in Ocean Shores, WA. The project objective was to protect existing infrastructure upland of the existing geotubes which had deteriorated due to wave and debris. Mr. Porter led design of the shoreline stabilization repairs which included a geotextile bag structure approximately 200 feet long by 15 feet high. He conducted construction oversight for the project and was the point of contact for the City of Ocean Shores. The project was completed in Fall 2015.

Groveland Park Coastal Engineering Services, Robert Droll & Associates,

WA: The City of Mercer Island was in the process of implementing improvements along the waterfront of Groveland Park, located on the west shore of Mercer Island along Lake Washington. Project Manager completed an assessment and made recommendations to meet client criteria for performance, habitat, and stability. He assisted in design of the shoreline beach restoration project element. The shoreline that was evaluated was approximately 40 feet long located at the existing pier. The assessment focused on review of site conditions, cursory-level assessment of coastal processes based on previous nearby work, development of a conceptual-level beach profile cross-section and sediment grain size requirements, and recommendations for transition elements. (2016 – 2017)

Cornet Bay Beach Restoration Project, Deception Pass State Park,

Northwest Straits Marine Conservation Foundation, Cornet Bay, WA: Mr. Porter, Project Engineer, completed these tasks for this nearshore restoration project: data collection, reviewed site conditions. Assisted in developing baseline

conditions, preliminary engineering analysis design, and development of drawings of the preferred alternative. (2014)

City of Warrenton Marina Dredge Design, City of Warrenton, OR: Project Manager. Conducted conceptual, preliminary, and final engineering design for dredging of the Hammond Boat Basin. He assisted the City to obtain environmental permits for dredging and materials disposal in the Columbia River. Material has been permitted for open-water disposal in the Columbia River. He assisted the City with phasing the dredge area priorities due to the limited in-water construction window. (2017 – 2019)

Port of Kalama Maintenance Dredging at CHS/Temco Berth, Kalama, WA: Project Engineer. Due to increased sedimentation, the majority of recent dredging at the Port of Kalama had occurred at the CHS/TEMCO facility. Consequently, modification to the permits was needed to complete anticipated dredging at CHS/TEMCO in fall 2012 as the maximum permitted dredge volume had been expended. Mr. Porter conducted preliminary engineering analysis and numerical modeling to estimate maintenance dredging requirements at CHS/TEMCO. Modifications to permit documentation were prepared. (2013 – 2014)

Grays Harbor Navigation Channel Deepening, Port of Grays Harbor, Aberdeen, WA: Project Engineer. Evaluated sedimentation in the Navigation Channel by analysing sediment transport processes. Also, a maintenance dredging optimization analysis was completed to determine the preferred dredging period (time for dredging), dredging geometry, and corresponding clearance for advanced maintenance dredging. (2013 – 2014)

Douglas County PUD Recreational Facilities Improvements, Douglas County, WA: Project Engineer for marine facilities improvements at two project sites: Carpenter Island and Methow River. He completed coastal engineering studies for assisting in development of design criteria for each project site, dredging evaluation for a new channel, and existing basin maintenance dredging. Developed civilian navigation aid design with communication and feedback from the local United States Coast Guard Office. Mr. Porter also assessed extreme water levels to assist in design of steel piles for the floats, debris boom, and navigation aids. (2011 – 2012)

Mukilteo Waterfront Improvements Conceptual Design, J.A. Brennan Associates, Mukilteo, WA: Project Engineer. Assisted with design concepts for waterfront improvements along the Mukilteo project waterfront. Improvements reviewed included shoreline restoration and beach enhancements to improve public accessibility and nearshore habitat. Work tasks included data collection and review; a site visit to review the condition of the park facilities; preparation of an assessment memo and providing a cost estimate of proposed improvements. (2018 – 2019)

NPS Channel Islands – Anacapa Island Ferry and Workboat Pier Improvements, CA: Project Engineer. Mr. Porter completed a risk assessment alternatives evaluation report to address identified risks for at-sea transfer of NPS personnel at Anacapa Pier. He analyzed the existing pier structure and completed an operational assessment and safety assessment. Mr. Porter evaluated vessel berthing and corresponding motion in relation to waves. He performed an alternatives evaluation, and estimated construction costs for each alternative. (2014 – 2016)



**Evan Sheesley, PE,
SE, ENV SP**

QA/QC

Personal summary

Firm:

Mott MacDonald

Education:

BS Civil Engineering,
University of Colorado,
2007

Registrations:

Structural Engineer
OR, #94133PE, 2019
AZ, #67908, 2018
ID, #18087, 2018
WA, #48626, 2011

Years of experience:

15

Mr. Sheesley has 14 years of experience in the civil and structural design of marine and waterfront facilities. He has managed, designed, and planned marina and port projects across west coast and internationally. Mr. Sheesley's responsibilities include quality control review and design of technical engineering elements concept design through construction phases including the preparation of construction plans, specifications, and bid documents.

Selected projects

Schlagel Park Redevelopment, City of Pasco, Pasco, WA: Project Manager. Developing an improved boat ramp and launch floats to improve access and meet ADA requirements as part of the park redevelopment project. Worked with the client to assess regulatory permit requirements for overwater area development restrictions and develop a more durable float system. Services included, structural design, civil design, bank stabilization, water level analysis, cost estimating, and development of technical special provisions.

Boyer Park and Marina Redevelopment, Port of Whitman County, Colfax, WA: Project Manager. Project includes replacing existing marina floats, constructed in the 19070's with modern marina floats the meet modern accessibility requirements. In addition, salvaging and repairing a portion of the existing marina floats to extend their service life. Services included planning and stakeholder outreach, structural design, condition assessment, design development, cost estimating, and developing technical specifications.

Squire Landing Park Redevelopment, City of Kenmore, Kenmore, WA: Project Manager. Planning, Design and construction support services to improve public water access opportunities, restore wetlands, and improve accessibility at the existing park site. Located at the confluence of the Sammamish River and Swamp Creek, the redeveloped park includes pile supported boardwalks, overwater pedestrian bridges, hand carry boat launch, marina floats and gangways, new restroom building, and parking lot. Lead a multidisciplinary consultant team to help the City navigate the complex regulatory and RCO grant requirements. Services included, costal engineering, geomorphology, structural design, cost estimating, stakeholder outreach, construction scheduling, and development of technical special provisions.

Las Chollas Creek Bridge Condition Assessment and Repairs, San Diego, CA: Project Manager and Structural Engineer. Services include condition assessment, engineering, design, and permitting to repair an existing railroad bridge. The 1980's bridge comprises precast/prestressed(pc/ps) concrete box girders on concrete pile caps and abutments, supported by pc/ps concrete piles. The bridge is part of the SANDAG system, supporting freight and passenger trains. The piles were experiencing server deterioration from the marine environment and excessive scour was present at the abutments and support piles. The work conducted by Mott MacDonald included data collection, condition assessment, scour assessment, preliminary structural and geotechnical analyses, pile repair and scour repair designs.

Park Bridges and Structures On-Call, City of Bellingham, Bellingham, WA: Project Manager of the A/E team to provide inspection, evaluation, design, planning, permitting, and preparation of bid-ready documents for the repair, replacement, or removal of park bridges and structures selected by the City. Structures range from timber and steel girder bridges, small facilities/buildings, and other structures in the Park's inventory. Responsibilities include proposal

development, client management, quality control, coordination of the A/E team, structural evaluation and design.

Pier 57 Structural Engineering Services, Seattle, WA: Project Engineer for the structural seismic analysis and pier repairs for the Pier 57 Corporation.

Performed a seismic analysis of the existing pier to determine its vulnerability to earthquakes, determine a retrofit concept, and provide an assessment to the owner. Designed a replacement structure for a trestle to give the owner more useable space, Design and construction support of an overwater foundation for the Wings Over Washington ride. Responsibilities included determining design criteria, structural design, permitting support, junior level staff mentoring, and drawing and specification development.

Edmonds Fishing Pier Rehabilitation, Edmonds, WA: Project Engineer for this concrete repair and rehabilitation project for the city of Edmonds. Provided a structural assessment and designed concrete repairs and topside recreation improvements for the 920-foot Edmonds fishing pier. The pier was originally constructed in the late 1970s and was showing signs of needing structural repairs and surface improvements to maintain user safety and enjoyment. Provided structural designs for concrete and guardrail repairs and topside improvements, including new site furnishings, lighting, shelters, and fish cleaning stations. Worked closely with the owner to determine scope and prioritize repairs. Inspected the public fishing pier to map areas of deteriorated concrete and developed reinforced concrete repair details to extend its service life, which is exposed to a severe corrosive, marine environment. Managed and coordinated a team of design professionals to develop details for site furnishing replacement, guardrail, repairs, electrical upgrades, and water line replacement. Developed a cost estimate, construction schedule, and helped develop specifications. Continued work through construction support.

Seattle Aquarium Pier 60 Piling Replacement, Seattle, WA: Engineering Team Member for this project for the Seattle Aquarium Society. Responsible for concept design, final structural design, and construction administration of a steel pile-founded concrete overwater pedestrian walkway. Responsibilities also included structural analysis, determining layout and types of structural components, and preparation of preliminary plans and cost estimates. Working directly with the architect, helped develop and design solutions for steel and concrete details that were appealing to the client

Vancouver Waterfront Park Development, Vancouver, WA: Project Engineer for the development of preliminary design of various overwater structures for a new waterfront park development for the City of Vancouver. Developed design criteria and preliminary drawings for a steel pile-supported precast concrete pedestrian pier, steel pile-supported cast-in-place fishing pier with a floating dock, and several cast-in-place concrete structural retaining walls. Worked with several engineers and landscape architects to examine various design and project phasing alternatives.



Julie Wirth-McGee, PWS

Permitting Lead

Personal summary

Firm:

AKS

Education:

MPP, Environmental
Policy, Oregon State
University

MS, Forest
Resources/Natural
Resources Policy and
Law, Oregon State
University

BS, Environmental
Studies, University of
Oregon

Registrations:

Professional Wetland
Scientist
OR, #2279

ODOT Qualified
Endangered Species Act
(ESA) Biologist for ESA
Documentation

WSDOT Qualified
Biological Assessment
Author, Senior Writer

ODOT Certified
Environmental
Construction Inspector,
#48815

ODOT Certified General
Construction Inspector,
#48815

Years of experience:

19

Julie is a certified Professional Wetland Scientist (PWS) with 19 years of experience working in the public and private sectors. She has provided specialized services for local, state, and federal permitting in Oregon, Washington, and Idaho. Her areas of expertise include wetland delineations and functional assessments; riparian, wildlife habitat, and biological assessments; scientific and technical report writing; local land use permitting; state and federal wetland and waters permitting; National Environmental Policy Act and Endangered Species Act (ESA) compliance documentation; and compensatory wetland, waters, and buffer mitigation design and monitoring. Julie has extensive experience providing natural resources services for port, transportation, and utility related projects.

Selected projects

Port Dock 5 Pier Replacement Project, Port of Newport (Port), Newport, OR:

Senior Environmental Specialist responsible for all field work and permitting on this Port project to replace the deteriorating timber Dock 5 pier with a new concrete pier on steel pilings. The replacement pier featured a new 80-foot-long ADA compliant gangway that leads to a new floating dock that supports the increased loads. The new pier supports both pedestrian and vehicle loads and provides access to the Port's commercial fishing fleet. Work performed included an eelgrass bed survey and delineation, Joint Permit Application (JPA) for state/federal permitting, SLOPES IV compliance documentation, marine mammal monitoring coordination, and agency coordination. Helped the Port apply for an Economic Development Administration (EDA) grant that helped to fund construction.

Bolon Island Haul-out Basin, Reedsport, OR:

Senior Environmental Specialist responsible for all field work and permitting on this complex project in the Umpqua River Estuary. The project consisted of the construction of a new commercial fishing boat maintenance facility that included a boat haul-out slip, wash basin, concrete runway for crane access, and a concrete pier and floating dock. Field work included the delineation of tidal wetlands at the project site as well as at the proposed mitigation site on Steamboat Island. Permitting services included extensive coordination with agency representatives, the completion of a functional assessment, a JPA for state/federal permitting, preparation of a Compensatory Wetland Mitigation Plan, and a Biological Assessment (BA) for OC coho, green sturgeon, eulachon, and listed whales and turtles. During the permitting effort, assisted in negotiations with agency representatives to allow alternative sound attenuation methods; thereby, eliminating the need for a costly and time-consuming confined bubble curtains during pile driving activities.

Port of Brookings Harbor (Port) Tsunami Repairs, Brookings, OR:

One of the environmental specialists that assisted the Port in executing the Port's \$7 million tsunami recovery program following the March 2011 earthquake in Japan. The resulting tsunami caused the Port's commercial receiving dock to collapse; caused sediments within the boat basin to shift; swept away approximately 40% of the Port's commercial moorage; and caused significant damage throughout the basin. Assisted in the preparation of a JPA for the US Army Corps of Engineers (USACE), a BA to address project effects on three listed fish species, and local permitting documentation.

Astoria Waterfront Bridge Replacements Project, Astoria, OR: Senior Environmental Specialist responsible for all permitting on this complex project in the Columbia River Estuary. Project consisted of the replacement of six bridges located in consecutive blocks from 6th Street through 11th Street along the historic Astoria Waterfront. Work performed included extensive coordination with agency representatives, a JPA for state/federal permitting, and the preparation of two Incidental Harassment Authorization requests to authorize proposed construction activities under the Marine Mammal Protection Act. Provided Marine Mammal Monitoring training for Oregon Department of Transportation (ODOT), City, and environmental staff, and helped facilitate the required monitoring efforts during two construction seasons.

Wyss Road: Trask Slough Bridge Project, Tillamook County, OR: Lead Senior Environmental Specialist for this bridge replacement project over the Trask Slough, completing all required field work and permit documentation. Services included coordination with ODOT, National Marine Fisheries Service (NMFS), USACE, and Oregon Department of State Lands (DSL) staff, preparation of all required Federal-aid Highway Program (FAHP) and JPA documents, preparation of all required inwater work extension documentation, FAHP construction compliance documentation, planting inspections and coordination, and mitigation monitoring and reporting. Assisted in the preparation of the required DSL easement application to authorize the use of state-owned submerged and submersible lands at the new bridge crossing location.

Tillamook County Neskowin Wayside Trail, Neskowin, OR: One of the senior environmental specialists responsible for completing a wetland delineation and functional assessment for this Tillamook County multimodal project that will provide secondary bike and pedestrian access to the historic village of Neskowin. Construction of the trail will provide bike and pedestrian access into and out of Neskowin on a daily basis, but, during flooding, tsunami warnings, and emergency events, it can be utilized as an emergency route out of Neskowin. The 2.35-acres study area was determined to contain four tidally influenced wetlands and three tidal waterways. Work performed also included wetland field delineation and functional assessment, Mean Higher High Water/Highest Measured Tide (MHHW/HMT) determination, Wetland/Waters Delineation Report, local/state/federal permitting assistance, and the preparation of several Fish Passage Plans for the new bridge and culvert crossings.

Tillamook County Sollie Smith Road Culvert Replacement, Tillamook County, OR: Tillamook County received Federal Emergency Management Agency (FEMA) funding following a December 2015 federally declared storm event to replace a failed culvert under Sollie Smith Road. As senior environmental specialist, responsible for all permitting and coordination including field work; local, state, and federal permitting; and the Oregon fish passage plan. Project included removal of extensive roadway fill to facilitate construction of a new bridge structure, requiring creek channel restoration and mitigation planning. Because of the potential for the project to affect ESA-listed fish species, prepared a BA prior to coordinating with FEMA to cover the proposed actions under the newly issued FEMA/NMFS Programmatic Biological Opinion.



**Scott Schlechter,
PE, GE, D.PE**

Geotechnical
Engineering Lead

Personal summary

Firm:

GRI

Education:

MS, Civil Engineering
(Geotechnical Specialty),
Oregon State University
BS, Civil Engineering,
Oregon State University

Registrations:

Professional Engineer
OR, #74883)
CA, #C62498
ID, #11907
WA, #40723
Professional
Geotechnical Engineer
OR, #74883

Years of experience:

21

Scott has focused his 21-year career on the seismic design aspects of waterfront facilities with challenging soil-structure interaction; deep foundation design; utilities; and ground improvement considerations. Scott actively serves on the national ASCE Coast, Oceans, Ports, and Rivers Institute and has achieved the ASCE Diplomate Status in Port Engineering, recognizing his experience and expertise in evaluating waterfront projects. He has managed and served as lead geotechnical engineer for numerous waterfront development projects, which have addressed considerable permitting and engineering requirements. He combines his advanced expertise and understanding of design to develop constructable solutions that meet the needs of the project.

Selected projects

Jackson County Howard Prairie Marina Replacement, Jackson County, OR:

The marina replacement project includes construction of a new floating dock structure to provide 165 seasonal boat slips, 18 rental boat slips, a day dock, and a fueling station. A gangway will connect the dock to the existing parking lock. GRI reviewed existing subsurface information and completed additional borings and test pits to characterize subsurface conditions for the dock and gangway. Scott managed GRI's engineering studies to develop axial and lateral resistances for drilled and socketed steel pipe piles and recommendations for construction of the foundations in accordance with ASCE 7-10, Minimum Design Loads for Building and Other Structures. GRI is presently providing observation services during site earthwork and installation of piles.

NOAA Marine Operations Center-Pacific, Port of Newport, OR: The National Oceanic and Atmospheric Administration selected the Port of Newport for the relocated home of agency's Marine Operations Center-Pacific which included includes a 1,500-foot-long dock with two access trestles and office and warehouse structures with footprints up to 150,000 square feet. Scott led the geotechnical team in providing seismic and geotechnical design recommendations to address the seismic hazards at the site and on-site observation services and consultation during construction for the award-winning project. GRI also helped lead efforts with the permitting agencies to evaluate underwater noise during the test pile program. The project received ACEC's 2012 Grand Award for Engineering Excellence and Honorable Mention for the ASCE Region 8 2011 Major Project of the Year.

Port of Newport, International Terminal Renovation, Newport, OR: Managed the phased geotechnical design and construction services evaluating alternatives to repair, seismically retrofit, and/ or remove the two World War II concrete ships that form Berths 1 and 2 at the Port of Newport. Geotechnical criteria for the project were provided for design of landside and overwater structures including ground improvement to mitigate liquefaction hazards at the site. After successful construction, the project received the ACEC Oregon's 2014 Grand Award for Engineering Excellence and the national 2015 ASCE Coast, Oceans, Ports, and Rivers Institute Project Excellence Award.

Oregon International Port of Coos Bay, Coos Bay Channel Modifications,

Coos Bay, OR: The Port proposes to widen and deepen approximately nine miles of the existing navigation channel to accommodate large, deep-draft container vessels and allow additional vessel maneuvering. GRI completed sampling and analysis plans (SAP) for the US Army Corps of Engineers and supplemental explorations. GRI is using these results to assess geotechnical stability and constructability of dredge cuts, geotechnical stability and the long-

term equilibrium of side slopes adjacent to infrastructure, behavior of dredge material during handling and disposal, and areas of uncertainty and associated risks.

Additional experience

- City of Des Moines, North Marina Parking Lot Bulkhead and Breakwater, Des Moines, WA
- Port of Coos Bay, Ice Plant and Dock Replacement, Coos Bay, OR
- Port of Newport, Rogue Ales Brewery Bulkhead Wall Repair, Newport, OR
- Port of Newport, Dock 5 Pile Replacement, Newport, OR
- Port of Newport, Front Street Wharf Reconstruction and New Two-Story Commercial Building Design Build (Former Undersea Gardens), Newport, OR
- Jordan Cove Energy Project, Liquefied Natural Gas (LNG) Terminal, North Bend, OR
- Port of Portland, Pembina Propane Terminal, Portland, OR
- US Coast Guard, Neah Bay Covered Moorage, Neah Bay, WA

**Peter Lekhakul, PE,
LEED AP BD+C**

MEP Engineering Lead

Personal summary

Firm:

Wood Harbinger

Education:

BS, Electrical
Engineering, Seattle
University, 1995

Registrations:

Professional Electrical
Engineer
WA, #39959, 2004

Leadership in Energy &
Environmental Design
(LEED) Building Design
and Construction AP

Years of experience:

26

Peter brings more than 26 years of experience in the industry. He is adept in developing innovative solutions for the special considerations needed in port and waterfront environments. With a creative, problem-solving approach and an easy-going communication style, Peter manages projects and teams of various sizes, and conducts assessments and design for power distribution, standby and emergency power, lighting, fire alarm, communication, and low-voltage systems that serve the specific needs of each client and project.

Selected projects

Various On-Call Marina Upgrades and Projects, City of Des Moines, Des Moines, WA: Has provided more than 18 years of electrical engineering design and project management services to the City of Des Moines. His projects include providing a marina electrical utility study; replacing marina incoming utilities, upgrading the North marina guest moorage docks and parking area; replacing 12v feeders south of the Repair Yard; replacing M and N dock utilities, J Dock fire rehabilitation and replacement; and upgrading existing fiber optic equipment and cabling for a new gate/entry system, pay stations, gate security system and future camera improvements. Currently, working on two projects, guest moorage shore power upgrade and marina dock replacement.

Dock Repairs and Fuel Float Replacement, Port of Port Angeles, Port Angeles, WA: Electrical Engineer for an assessment report and recommendations for upgrades and replaced the existing electrical grounding system at Terminal 1. Currently, working on the replacement of the New Haven Fuel Float replacement, which is under construction, which includes all power, communication from upland building, down gangway and onto fuel float.

Cable Carrier Upgrades, A Dock, Salmon Harbor Marina, Winchester Bay, OR: Lead Electrical Engineer to upgrade transitions from the upland distribution onto the docks. Wood Harbinger developed an innovative shore-to-dock cable protection system that provides stability against motion at the gangplank.

17th Street Dock Reconstruction, City of Astoria, Astoria, OR: Electrical Engineer on this new steel and concrete pile supported dock project. Electrical systems included medium voltage distribution with service transformer and underground conduit routing, coordination for the new 15 kV service cutover, low voltage distribution with unit substation, branch panels, shore power boxes, and receptacles, communication systems, and pole-mounted LED area lighting.

Attachment 2. Project descriptions

The following project descriptions include the Mott MacDonald team's direct experience performing similar work. Project descriptions include client, services provided, dates of service, costs, and a current client contact for the project. Project descriptions are organized as follows:

- Mott MacDonald
- AKS
- GRI
- Wood Harbinger

Depoe Bay Harbor Dock Replacement Concept Engineering

Firm

Mott MacDonald

Location

Depoe Bay, OR

Client

City of Depoe Bay

Current client contact

Brady Weidner
City Superintendent
P.O. Box 8
Depoe Bay, OR 97341
541.765.3005
weidner@cityofdepoebay.org

Dates of service

2014 – 2015

Services provided

Site visit
Reviewed existing conditions
Data collection/review
Basis of design – design criteria
Concept development
10% engineering drawings
Cost estimates



Depoe Bay Harbor Dock

The City of Depoe Bay (City) planned to replace three of four docks at Depoe Bay Harbor. The docks were constructed in the 1950s and are composed of a timber creosote floats that are supported by steel H piles. The floats are accessed with aluminum gangways that were installed in the 1990s. Dock 1 had been replaced with new aluminum floats and sleeving of the original H-Piles.

Mott MacDonald assisted the City with development of concept engineering drawings and associated cost estimates of the detailed design and construction costs for each dock replacement option.

Data collection, review/criteria development

- Compiled/reviewed surveys, geotechnical data, previous reports, marina condition assessment and made recommendations, requirements for new data collection (surveys, geotechnical).
- Visited project site and met with Marina Harbor Master and City staff to discuss project and attend a kickoff meeting.
- Reviewed proposed project elements relative to current regulatory permit requirements.

Basis of design

Developed a basis of design to document project requirements, criteria, and goals:

- Environmental regulation requirements (local, state, federal).
- Water; waste systems; fire suppression; electrical.
- Floating Structure Systems: Float system type, width, grating, float loading requirements, pile type and requirements; construction phasing.

Concept engineering

Conducted schematic-level engineering design to develop conceptual-level details to aid in development of a cost estimate. Details included a project and float plan, section, and details of preferred float concept:

- **Conceptual Pile Design/Evaluate Pile Options:** Calculated wind, wave, and vessel loads on the float system and evaluated types of anchor piles. Evaluated strength, constructability, useful life and cost of each pile type. Determined required number of piles required and pile type.
- **Conceptual Float Design:** Developed conceptual float designs that met design criteria. Designs presented options for decking, freeboard, rubstrips, cleats/bullrails, utility routing, and float and flotation materials. Evaluated different floats systems including glu-laminated timber, reinforced concrete, and welded HDPE pipe floats. In addition, the overall layout of the replacement float system will be developed so that any options available in float width or location can be presented and discussed. Provided pros and cons of float design and layout options, cost estimates and recommendations.

Cost estimate

Provided preliminary total project cost for each conceptual option and presented to the City. The cost also included an estimate for float procurement separate from installation.

Jackson County Howard Prairie Resort Marina Engineering Services

Firm

Mott MacDonald

Location

Ashland, Jackson
County, OR

Client

Jackson County

Current client contact

Steve Lambert
Jackson County, Roads
and Parks Department
Program Director
571.774.6303
lambersm@jacksocounty.org

Dates of service

2015 – Present

Costs

\$4 million (construction)

Services provided

Site visit
Data collection
Conceptual, preliminary,
and final engineering
design
Permit assistance
Construction
administration



Jackson County, Oregon, intends to construct a 165-slip marina at Howard Prairie Resort County Park, located on Howard Prairie reservoir, located near Ashland, Oregon.

Mott MacDonald is currently providing engineering services for design of new marina facilities at Howard Prairie Resort Marina. The work includes a site condition investigation, hydraulic analysis, permit drawings, final drawings and specifications, bidding documents, and County/Army Corps of Engineers permitting support. The project objective is to produce a detailed set of construction drawings, technical specifications, and bidding documents sufficient for public solicitation of bids for construction. Project elements include a float and anchor system; wave attenuator; dredging; gangways; bulkheads and shore protection; fueling system; electrical system; sewage pumpout system; potable water system; upland paving, striping and signage for ADA compliance and repair.

Conceptual/preliminary design

Mott MacDonald collected new field data and used this to develop a basis of design that summarizes the critical design criteria, evaluation criteria, site limitations, constraints and project goals. This document will guide the development of marina layouts and evaluation of alternatives.

Conceptual design consists of conducting schematic level engineering design utilizing the Basis of Design to develop conceptual level marina layouts and facility details to aid in the development of a preferred marina alternative. Schematic layouts include a project marina plan and float plan and section. For preliminary (50%) design, Mott MacDonald conducting engineering analyses and design of the preferred alternative to a level suitable to develop and submit for permits. Permit drawings included a vicinity map, existing and proposed site plan, and typical cross-sections and details. A preliminary cost estimate was provided for design elements.

Permitting assistance

For this task, Mott MacDonald provided a technical description of the proposed project for use by the County in development of regulatory permit application documents. Mott MacDonald also performed a hydraulic analysis to assist in obtaining a County flood plain permit.

Final design

For final design, Mott MacDonald produced final drawings and technical specifications suitable for the County to solicit bids for construction. Final engineering design and plans will focus on the type, size, and alignment and material requirements of the project elements. Both 90% and 100% drawings and specifications will be delivered to the County for review.

Mott MacDonald also provided bid document preparation technical support. In addition to the technical specifications and drawings, a construction cost estimate was provided.

Cornet Bay Marina Improvements

Firm

Mott MacDonald

Location

Deception Pass Marina
State Park, Whidbey
Islands, WA

Client

Washington State Parks

Current client contact

Derek Gustafson
Region Planner
NW Parks Development
220 N. Walnut Street
Burlington, WA 98233-
1138
360.755.5262
Derek.gustafson@parks
.wa.gov

Dates of service

2016-2022

Costs

\$300,000 (A&E fee)
\$1.8 million
(construction)

Services provided

Marina facility
replacement
ADA improvements
Design, permitting, and
construction support
Wind and wave analysis



Cornet Bay Marina is located within Deception Pass Marina State Park on Whidbey Bay Island. The site is accessible by boat and an uplands parking area. The marina offers 1,100 feet of space. There are also floating docs, including an unleaded and diesel fuel dock.

To fix the main saltwater access point for boaters at Deception Pass, the improvement project consisted of the replacement of existing moorage floats with new ADA accessible floats. These were supported by galvanized steel pile in an expanded marina layout, ADA-accessible gangway system, and a new ADA accessible aluminum fixed pier system.

Services provided

As part of an ongoing Washington State Parks Marine Facility Engineering and Permitting Services On-Call Contract, Mott MacDonald completed engineering tasks to assist Washington State Parks in the design, permitting, and construction support of the marina replacement at Cornet Bay.

Work included a condition assessment, an engineering analysis, permitting, and preliminary and final engineering design for in-water improvements. Facility elements included the replacement and expansion of moorage floats and replacement of fixed access pier and access gangway.

We also performed wind and wave analysis and used the results to optimize the marina configuration.

In addition to Cornet Bay Marina, Mott MacDonald provided in-water improvements at other existing facilities, including James Island, Matia Island, and Doe Island. Services ranged from selective rehabilitation to complete replacement.

Boyer Park Improvements

Firm

Mott MacDonald

Location

Pullman, WA

Client

Port of Whitman County

Current client contact

Debbie Snell
Manager
Port of Whitman County
302 N Mill Street
Colfax, WA 99111
509-397-3791
DSnell@portwhitman.com

Dates of service

2016 – Present

Costs

\$6 Million

Services provided

Data collection/review
Descriptive outline
Conceptual construction assessment
Cost estimate for planning-level engineering
Presentations
Reporting
Final design engineering
Bid document preparation



Boyer Park existing facility docks



Boyer Park is located on the Snake River near Pullman, Washington. To assist the Port of Whitman County, Mott MacDonald conducted an engineering assessment of the proposed Boyer Park Marina redevelopment project. Two of the main marina improvements being considered were replacement of the docks and fuel float.

Mott MacDonald completed a high-level assessment to determine key components of the project for support of the next round of WA RCO grant funding application submittal. After the project was selected to be funded by RCO, Mott MacDonald was scoped to complete final engineering and bid document creation. The project went to bid in December 2021 with plans to start construction in the fall of 2022.

Reviewed proposed plan/technical level assistance

To determine the basis for the assessment work Mott MacDonald summarized the criteria, assumptions and understanding of the project. General project criteria considered water elevations and ADA guidelines. Other criteria included: distribution of vessel type and sizes; marina geometry; moorage floats; gangways; moorage support piling; dredging; fuel float pumpout station; and utilities. Mott MacDonald reviewed the proposed plan and provided planning level technical assistance related to:

- Gathering, compiling, reviewing existing data.
- Evaluation of RCO boating facilities funding criteria relative to marina uses and classifications (transient vs. permanent, boat ramp, fuel float, large cruise vessel moorage).
- Descriptive outline of project implementation process and schedule (permitting, design, procurement, construction).
- Type of dock replacement that meets current regulatory requirements (provided example photographs and descriptions of different types of dock construction, considering safety measures, fire code, compliance elements, and light passage).
- Provide conceptual construction costs of improvements.
- Provide costs for planning-level permitting and engineering.

A summary of the work was provided in a PowerPoint presentation and letter report and delivered to the client.

Final design and bid documents

Mott MacDonald completed final design and bid document creation for a replacement marina for docks 1 and 2. Additionally the final design and bid documents included a large scale rehabilitate of the existing docks that will not be replaced. Work includes new steel floats, steel piles, gangways, access pier and a new fuel float with pumpout station. The existing floats that are to be rehabilitated are precast concrete floats.

Crescent Bar Recreational Facility Improvements

Firm

Mott MacDonald

Location

Crescent Bar Recreation
Facility, Wanapum
Reservoir, Grant County,
WA

Client

Grant County Public
Utility District (PUD)
No. 2

Current client contact

Jerri Mickle, Land/Rec
Specialist
PO Box 878
Ephrata, WA 98823
800.422.3199 ext. 2194
jmickle@gcpud.org

Dates of service

2008 – 2017

Costs

\$1.5 million (A&E fee)
\$15 million (construction)

Services provided

Boating facilities
Hydrodynamic analysis
Jetty/breakwater
Dredging
Boat launch
Handling floats
Coastal engineering
Site analysis
Environmental
compliance
FEMA design criteria and
funding assistance
Public outreach
Marina facility
reconstruction and
repairs
ADA compliance



Aerial of new day-use marina and gangways

With two-boat ramp access areas located on and off of Crescent Bar Island, the newly remodeled marina will have day-use docks available on a first-come first-served basis. The marina, also used by local municipal agencies, offers the only on-water fueling station.

Mott MacDonald provided professional consulting and engineering services to Grant County PUD No. 2 as part of a Recreational Improvement Plan as required by their FERC operable license. PUD was planning on making upland and in-water recreational improvements to the Priest Rapids Project at Crescent Bar, located on Wanapum Lake near the Columbia River. Mott MacDonald completed condition and facility assessments, and feasibility engineering analysis through final design process for these components:

Boating facilities

Replacement of two-lane boat launch and day use moorage facility to improve usability at lower water level conditions.

Hydrodynamic analysis

Conducted hydrodynamic analysis of water levels, waves, and currents to develop baseline conditions of physical processes affecting the project site.

Jetty/breakwater

Evaluated performance of proposed new jetty/breakwater for pool level conditions and for pool raise condition, and evaluated minimum required length of jetty/breakwater for functionality of the boat ramp and entrance channel facility to reduce channel sedimentation.

Dredging

Dredging design of entrance navigation channel from entrance buoys to boat ramp including vicinity of bridge and boat launch, navigation aids, and bridge abutment stabilization.

Feasibility engineering

Developed baseline conditions of physical processes affecting project site. Conducted a condition assessment of boat ramp, marina, bank stabilization and beach facilities. Evaluated causes of erosion including river currents, wind-wave and vessel wakes. Developed design criteria utilizing results of analysis and identification of operational and biological criteria requirements. Developed design criteria for design vehicle and vessel to be utilized for sizing various facility elements. An alternative analysis determined requirements of each project element. Assisted PUD with public involvement process.

Preliminary and final engineering design

Evaluated and optimized construction materials, construction methods, and configuration of project elements to provide baseline information for permit applications and subsequently for final engineering design and bid document preparation.

Construction support

Review submittals, RFIs, and contractor questions. Conduct inspections, progress reviews, and final completion.

Washington State Parks – James Island Moorage Improvements

Firm

Mott MacDonald

Location

Puget Sound, WA

Client

Washington State Parks and Recreation Commission

Current client contact

Derek Gustafason
Region Planner
NW Parks Development
220 N. Walnut Street
Burlington, WA 98233-1138
360.755.5262
Derek.gustafason@parks.wa.gov

Dates of service

2014 – 2017

Costs

\$0.5 Million

Services provided

Preliminary and final design
Wind-wave analyses
Meetings



As part of the ongoing Washington State Parks Marine Facility Engineering and Permitting Services on-call contract, Mott MacDonald was responsible for conducting engineering design services and permitting support for in-water project components at the existing facilities at James Island State Park.

Services were for replacement of moorage floats, new fixed pier system, and new concrete abutment. Mott MacDonald conducted engineering analysis, preliminary and final engineering design services for in-water improvements at James Island State Park:

James Island State Park consists of a marine camping and moorage park along the Rosario Straights. The site is accessible only by boat. The improvement project consists of replacement of the existing moorage floats with new ADA accessible timber floats supported by galvanized steel pile in an expanded marina layout, and ADA accessible gangway, a new ADA accessible aluminum fixed pier system, and a new concrete abutment. Mott MacDonald performed wind and wave analysis and used the results to optimize the marina configuration for vessel moorage and loading/unloading of passengers.

60% engineering design: finalized marina and pier layout to 60% design

- Revised the basis of design using updated requirements and information gathered from permitting.
- Developed 60% design drawings, cost estimate, and project technical specifications index.

Final engineering design and construction documents

Performed engineering analysis and design to produce final drawings and technical specifications suitable for the Parks to solicit bids for construction:

- Incorporated comments received from Parks' 60% review.
- Conducted engineering analysis and performed calculations required to complete the design.
- Developed final design plans and calculations for float support pile and access pier.

- Developed design for performance based element (gangways) to level suitable for performance based bidding and selected contractor completion of design.
- Produced 90% and 100% drawings and technical specifications for Parks' review.
- Incorporated Parks' comments and produced final drawings and technical specifications.
- Provided final engineer's estimate of construction cost.
- Participated in two conference calls to review Parks' comments on 90% and 100% Drawings and Technical Specifications.

AKS' relevant project experience

Projects highlighted

- Garibaldi and Depoe Bay Dredging, Garibaldi and Depoe Bay, OR
- Port Dock 5 Pier Replacement Project, Newport, OR

Garibaldi and Depoe Bay Dredging, US Army Corps of Engineers (USACE), Garibaldi and Depoe Bay, OR

Reference: Brian Lofgren, President; Underwater Earth Movers, 2410 NE 106th Street, Vancouver, WA 98686; 360.573.2160

AKS managed hydrographic surveys related to dredging boat basins and support channels at Garibaldi and Depoe Bay on the Oregon coast. The Port of Garibaldi has a very active marina with more than 270 boat slips that are in high demand according to the Port of Coos Bay, which has assisted the Port of Garibaldi with dredging in the past.

Dredging at Garibaldi was necessary due to the high volume of traffic in the marina and sediment build-up from the five rivers flowing into the boat basin. Depoe Bay Harbor, at approximately six acres, is promoted by the city as the "world's smallest navigable harbor" with a US Coast Guard station. This harbor is vital to the safety of local members.

AKS provided control establishment, dredge plant set up and calibration of positioning systems, pre-, progress, and post-dredging surveys, daily reporting, video inspection, and general consultation.

Port Dock 5 Pier Replacement Project, Port of Newport, Newport, OR

Client: Port of Newport, Aaron T. Bretz, Director of Operations; 600 SE Bay Boulevard, Newport, OR 97365; 541.406.0217

Prior to joining AKS, Julie Wirth-McGee, PWS, was the Senior Environmental Specialist responsible for all field work and permitting on this Port of Newport project to replace the deteriorating timber Dock 5 pier with a new concrete pier on steel pilings. The replacement pier featured a new 80-foot-long ADA-compliant gangway that leads to a new floating dock that supports the increased loads. The new pier supports both pedestrian and vehicle loads and provides access to the Port's commercial fishing fleet. Work performed included an eelgrass bed survey and delineation, Joint Permit Application for state/federal permitting, SLOPES IV compliance documentation, marine mammal monitoring coordination, and agency coordination. Julie also helped the Port apply for an Economic Development Administration (EDA) grant that helped to fund construction.

GRI's relevant project experience

Projects highlighted

- Port of Garibaldi
Proposed Waterfront Improvements
- Port of Toledo
Boatyard
- Oregon International Port of Coos Bay,
Coos Bay Channel Modifications
- Oregon Park and Recreation
Department/Jackson County, Howard
Prairie Resort Marina Replacement

Additional project history

- City of Depoe Bay,
1.2-MG Water Reservoir, Depoe Bay, OR
- US Coast Guard,
Depoe Bay Station, Construction Support Services, Depoe Bay, OR
- Oregon State Parks and Recreation
Department and US Army Corps of Engineers, Joseph H. Stewart State Recreation Area, Lost Lake Marina Moorage Dock Replacement, Jackson County, OR
- US Coast Guard,
Neah Bay Covered Moorage, Neah Bay, WA

Port of Garibaldi Proposed Waterfront Improvements, Garibaldi, OR

Client: Port of Garibaldi | **Dates of service:** 2012 – 2015

A portion of the waterfront will be redeveloped by removing existing structures, including undermined retaining walls along the existing jetties; and pile-supported buildings, floor slabs, and boardwalks, which extend beyond the retaining walls and are supported on treated timber piles. Improvements may include new pile-supported building pads and wharf that extend over the sloped sides of the jetty. GRI completed a geotechnical investigation to evaluate subsurface conditions and address seismic considerations, including liquefaction, lateral spreading, and tsunami hazards; driven pipe pile foundations; existing and new riprap slope protection; and earthwork, including above- and below-water construction. GRI also evaluated, on a preliminary basis, the potential for recognized environmental conditions on the property; sampled and analyzed building materials for hazardous substances, including lead and asbestos; and evaluated whether additional assessment would be warranted to evaluate this risk. GRI assisted other team members, in development of 30% plans for the project to support a future design-build contract. GRI provided observation services during installation of the piling.

Port of Toledo Boatyard, Toledo, OR

Client: Port of Toledo | **Dates of service:** 2014 – 2015

As part of a design-build team, GRI completed a geotechnical evaluation for a proposed marine haul-out structure on the Yaquina River. The structure consists of two fixed piers constructed adjacent to an existing fixed pier for the drydock. The two new piers range between 100 and 170 feet in length and are connected by a concrete approach slab near the existing bank. The two piers and concrete approach slab are supported by vertical 24-inch-diameter steel pipe piles. Due to the presence of sloping, variably weathered rock at the site, the piles were fitted with end plates at varying lengths from the tip to achieve the minimum tip elevation for the required vertical and lateral pile capacities with allowances for the proposed dredging. The project was successfully constructed without any changes in the estimated design pile lengths.

Oregon International Port of Coos Bay, Coos Bay Channel Modifications, Coos Bay, OR

Client: Oregon International Port of Coos Bay | **Dates of service:** 2010 – 2020

The Oregon International Port of Coos Bay (Port) proposes to modify the existing Coos Bay navigation channel to accommodate large, deep-draft container vessels and allow additional vessel maneuvering. The proposed modifications include widening and deepening the channel from the entrance at the Pacific Ocean to the railroad bridge located at approximately river mile (RM) 9. The channel would be widened from approximately 300 to 450 ft and deepened from approximately elevation -37 to -51 ft Mean Lower Low Water. GRI completed sampling and analysis plans (SAP) for the US Army Corps of Engineers to complete the overwater geotechnical and environmental sampling. GRI worked closely with the design team to locate and complete the geotechnical explorations in areas that would supplement the extensive geophysical data previously developed in the area. The overwater explorations were completed from a barge and using mud-rotary drilling and rock coring techniques. Using the

results of the investigations, GRI prepared design reports that addressed geotechnical stability of the proposed dredge cuts and considerations for pile replacement into areas of shallow rock.

Oregon Park and Recreation Department/Jackson County, Howard Prairie Resort Marina Replacement, Jackson County, OR

Client: Jackson County, Steve Lambert, Roads and Parks Department Program Director, 541.774.6303, lambersm@jacksocounty.org

Dates of service: 12/2015 – Present

The marina replacement project includes construction of a new floating dock structure immediately north of the existing boat launch area. The dock structure will be approximately 366 feet wide by 458 feet long and provide 165 seasonal boat slips, 18 rental boat slips, a day dock, and a fueling station. A 160-foot-long gangway will connect the dock to the existing parking lock. GRI reviewed existing subsurface information completed by the US Department of Interior Bureau of Reclamation and others and completed additional borings and test pits to characterize subsurface conditions for the dock and gangway. The explorations disclosed the presence of shallow basalt and volcaniclastic sedimentary rock. Due to the presence of shallow rock, the new piles were designed using a drilled and socketed pile approach. GRI completed observing installation of the piling during the winter of 2021.

Wood Harbinger's relevant project experience

Projects highlighted

- City of Des Moines Marina Upgrades, Des Moines, WA
- City of Astoria 17th Street Dock Reconstruction, Astoria, OR
- Port of Port Angeles Building and Dock Repairs, Port Angeles, WA

City of Des Moines Marina Upgrades, Des Moines, WA

Wood Harbinger has been providing electrical and mechanical engineering services at the Des Moines Marina for more than 18 years. Through multiple projects, they have upgraded the entire site's electrical systems; upgraded the upland distribution systems for the marina office, new guest moorage, dry storage, and docks; provided a new fire protection standpipe system; and assessed and upgraded power and utilities at the fishing pier and the parking area.

Wood Harbinger designed the upland distribution systems with additional electrical power capacity that enables flexibility for future development, and including 15 kV feeders, switchgear, and unit substations with ductbanks and sectionalizer switches to allow the City to efficiently distribute the system and create some redundancies in the event of an underground fault. They also provided shore power boxes and upland power pedestals for use during various events at the parking lot.

Wood Harbinger developed an innovative shore-to-dock cable protection system that keeps the cables out of the water and stable while in motion at the gangplank. This kind of high-speed cable carrier system is typically used in automated plants, bridge cranes, and other industrial applications, and results in less required maintenance and easier serviceability. They used readily available off-the-shelf products in a new way, which kept initial design and construction costs below budget and simplified required maintenance. Wood Harbinger, working closely with the marina, developed design documents to replace the existing fuel distribution and filling stations at the guest moorage pier.

City of Astoria 17th Street Dock Reconstruction, Astoria, OR

Astoria's 17th Street dock is an integral component of the City's maritime culture and current service as a US Coast Guard hub. It is a hybrid use dock, accommodating permanent berthing of two US Coast Guard cutters, the historic Lightship Columbia, and public usage. When the existing timber structure reached the end of its serviceable life and deterioration impeded vehicle access, the City contracted a team to facilitate its demolition and replacement.

Wood Harbinger provided the mechanical and electrical engineering services for the new steel and concrete pile-supported structure. Electrical systems included the medium voltage distribution with service transformer and underground conduit routing, coordination for the new 15 kV service cutover, low voltage distribution with unit substation, branch panels, shore power boxes, and receptacles, communication systems, and pole-mounted LED area lighting.

Their mechanical scope including potable water piping, sanitary sewer piping, and the fire protection standpipe system. They took into consideration the extreme cold and wind that can occur at this location, including cold weather tolerant fixtures in our design.

Existing utilities were routed from underground upland distribution onto the dock via multiple trenches under concrete slab. Flexible/expansion fittings were used for all conduit, pipes and hoses that were under the dock to accommodate movement of 8-12" of travel in either direction at the expansion joint.

Wood Harbinger's electrical and mechanical design took into consideration the variable climate conditions at this location, including extreme cold, wind, and salt-water. We included cold weather and corrosion tolerant fixtures and equipment with integral heaters in our design. To accommodate the dock's multiuse nature, we had to conform to both the State and local City Codes and Naval/US Coast Guard standards for power requirements for the boats and area security lighting.

The new dock's sturdy concrete and steel structure supports reliable vehicle access, improving the ability to refuel and restock the Coast Guard ships, as well as enabling heavier forklifts and mobile cranes to access the ships for minor repairs.

Port of Port Angeles Building and Dock Repairs, Port Angeles, WA

Wood Harbinger was the prime consultant performing conditions assessments and developing replacement design for fire suppression and alarm systems in the Composite Manufacturing Campus buildings and grounding systems in Terminal 1.

They replaced the grounding system for the Terminal 1 Pier, a wooden fixed-pile pier originally constructed in the 1920s. Wood Harbinger conducted a study of the existing system and provided recommendations to solving issues or deficiencies. At the time, the electrical system was grounded only to the existing piping on the pier, with no true path back to earth. Their recommendation was to upgrade the grounding system by providing a new, combination radial/loop system comprised of ground rods in a delta configuration on the upland, one continuous grounding radial feed from the upland ground delta and connected to a loop under the pier. This radial loop feed system serving a loop under the pier provides redundancy reliability of an effective grounding reference for the Port in the event there is a failure at any point in the ground conductor under the pier. We designed the new system with bonding for all metallic elements of the pier including building structures, equipment, guard rails, ladders, boat ties, and cleats.

Wood Harbinger also performed conditions assessments and developed replacement design for FACP's in the Composite Manufacturing Campus buildings, each approximately 20,000 SF. They designed three addressable FACP's with cellular communications to each building in lieu of traditional phone or radio communication. Each building is now stand-alone instead of all controlled from one FACP. The existing FACP, communicator, and remote annunciator were removed and replaced with new.

Attachment 3. References

We encourage the City to reach out to our client references identified in the following table.

Project name, location, and brief description	Client reference	Firm
Wanapum Hydroelectric Facility Reservoir, Ephrata Five recreational boating facility projects, including marinas, boat ramps, dredging, sedimentation reduction, and bank stabilization on Columbia River.	Grant County PUD Jerri Mickle T: 800.422.3199 x2194 E: jmickle@gcpud.org	Mott MacDonald
Wells Reservoir, Douglas County Boating facility rehabilitation and replacement at three sites on Columbia River.	Douglas County PUD Scott Krieter T: 509.881.2327 and 509.884.7191 E: scottk@dcpud.org	Mott MacDonald
Cornet Bay Marina Replacement Replacement and expansion of moorage floats; replacement of fixed access pier and access gangway.	Washington State Parks and Recreation Derek Gustafson T: 360.755.5262 E: Derek.Gustafson@parks.wa.gov	Mott MacDonald
Jackson County Howard Prairie Resort Marina Engineering Services, Ashland, Jackson County 165-slip marina construction.	Jackson County Steve Lambert T: 571.774.6303 E: lambersm@jacksocounty.org	Mott MacDonald and GRI
Port Dock 5 Pier Replacement, Newport Replacement of deteriorating timber Dock 5 pier with a new concrete pier on steel pilings.	Port of Newport Aaron T. Bretz T: 541.406.0217	AKS (staff)

Attachment 4. Assumptions for cost and schedule

1. Proposal is subject to successful negotiations on the City's Agreement for Professional Services.
2. All work including final design to be completed by July 30, 2022.
3. Reuse of the existing pedestals on the floats.
4. No dredging work or design.
5. One upland boring near the boat ramp and existing boring information will be used for design. City to provide access to boring.
6. No fuel float or pumpout float design or work.
7. Existing bathymetric survey data by the Corp will be used for permits. Minimal new survey or bathymetric survey will be done for final design.
8. Final layout of the floats will be based on previously presented layouts.
9. Design requirements by the City will not change after preliminary design.
10. Global site stability analysis or design will not be conducted.
11. Specifications to be CSI format.
12. The City will provide all contractual Div 0 documents.
13. The City will provide all comments to deliverables within one week of submission to meet the project schedule.
14. Hours and budget shown per task are estimates based on available data and assumptions as well as responses to questions in Addendum 1. Final budget to be negotiated with the City after award based on final scope of services.
15. NMFS will require that a Biological Assessment be prepared for this project. If it is determined that SLOPES IV can be used for ESA coverage, then a standard SLOPES IV Compliance Document will be prepared and submitted with the USACE JPA.
16. The project will have no effect on US Fish and Wildlife Service (USFWS) ESA-listed species.
17. The city will be responsible for all permitting fees.
18. It is assumed that the project will be considered self-mitigating (i.e., reduction in piles), and that the preparation of a standalone Compensatory Mitigation Plan will not be required.
19. The pre- and post-construction waters functional assessments will be completed using the Best Professional Judgment method per the requirements of DSL.
20. The project will not require an Incidental Harassment Authorization under the Marine Mammal Protection Act.
21. Individual Coastal Zone Certification will be required for this project.
22. Final design will trigger the need to submit for a DSL Easement to authorize the use of Oregon owned submerged and submersible lands.
23. Local permitting will be required but will not include more than two (2) permit applications.
24. Reuse of the existing pedestals on the floats.
25. Main Panel will not need to be replaced. Work includes replacement of breakers.
26. No trenching or excavation work will be required for the utilities.
27. No fire protection, fuel or sanitary sewer design or work is included.
28. No construction support included.

Attachment 5. Mott MacDonald team's full cost proposal

Our cost proposal is available on the following page as an 8.5"x11" page per the RFP page size requirements. We would be open to sharing an 11"x17" page to the City upon request.

Depoe Bay - Fee Estimate																	
FINAL ENGINEERING DESIGN & PERMITTING																By: EDE	
																Date: 1/13/2022	
Tasks	Principal II	Principal I	Sr. Proj Manager	Proj Manager	Sr. Proj Eng	Proj Eng.	Eng III	CAD Designer	Proj Admin	Geotech GRI Cost	MEP Wood Harbinger Cost	Permitting AKS Cost	Direct Expenses	Total Sub Consultant & Expenses	TOTAL HOURS	LABOR (\$) plus 10% sub markup	Total (\$)
	\$270.00	\$225.00	\$200.00	\$185.00	\$180.00	\$150.00	\$130.00	\$145.00	\$110.00								
Tasks																	
Task 1 - Kick-off meeting and data collection (Kick-off meeting, in-person meeting)																	\$41,000
- Kick-off meeting	4			4	4				2					\$ -	14	\$2,760	
- Site Visit and data collection and review	4			12	4								\$ 750	\$ 825	20	\$4,928	
- Field Borings and Survey	1			2						\$ 10,000		\$ 17,000		\$ 29,700	3	\$33,310	
Task 2 - Design Criteria and Recommendations for Updates to Conceptual Design (Recommendations/with narrative, in-person meeting)																	\$15,500
- Recommendations and Narrative	2			6	4		12	4	2	\$ 2,400				\$ 2,640	30	\$7,634	
- In person meeting	4			12	4					\$ 2,400			\$ 750	\$ 3,465	20	\$7,832	
Task 3 - Conceptual design update (Provide updated design for concurrence-public meeting)																	\$15,100
- Updated Conceptual Design	4	4		12	8		24	12	2					\$ -	66	\$10,720	
- Public Meeting (zoom)	6			8						\$ 1,000				\$ 1,100	14	\$4,310	
Task 4 - 60% Design																	\$123,800
- Revised Basis of Design	2			8		4	6							\$ -	20	\$3,400	
- Engineering Analysis	2	8		20	8	12	24			\$ 24,000	\$ 26,000			\$ 55,000	74	\$72,900	
- Wave Analysis - Forces, Scour, Reflection	2	8		10	16	40		8						\$ -	84	\$14,230	
- 60% Drawings (JARPA format)	4	2	4	20	12		40	100	2					\$ -	184	\$28,110	
- 60% Spec List	1			4			4							\$ -	9	\$1,530	
- 60% Cost Estimate	1	1		8			12							\$ -	22	\$3,535	
Task 5 - Maintenance schedule and costs (Anticipated maintenance schedule costs)																	\$5,400
- Anticipated maintenance schedule costs	2	4		12	8				2					\$ -	28	\$5,320	
Task 6 - Regulatory permitting (Prepare permits for submittal)																	\$103,400
- Prepare and Submit Applications	8			24			8		2	\$ 2,400		\$ 20,000		\$ 24,640	42	\$34,964	
- Biological Assessment	4			8			4					\$ 25,000		\$ 27,500	16	\$33,330	
- Agency Coordination	6			24								\$ 24,000		\$ 26,400	30	\$35,100	
Task 7 - Final design [100% design, cost estimate, prepare construction documents, public meetings via zoom (with City staff, harbor restoration committee, City Council to review)]														\$ -			\$134,400
- Final Engineering Analysis	4	8	2	20	8	12	40			\$ 3,600	\$ 17,000			\$ 22,660	94	\$40,346	
- 100% Drawings	8	2	4	40	8		60	160						\$ -	282	\$43,250	
- 100% Specs	4			20	8		60							\$ -	92	\$14,020	
- 100% Cost Estimate	2	4		8			16							\$ -	30	\$5,000	
- Final Drawings	4	2	4	20	8		20	24	2					\$ -	84	\$13,770	
- Final Specs	2	2		8			12							\$ -	24	\$4,030	
- Final Cost Estimate	2	2		4			4							\$ -	12	\$2,250	
- QA/QC	6	8	8		8				2					\$ -	32	\$6,680	
- City Staff and Harbor Restoration Meeting	2			6				6						\$ -	14	\$2,520	
- City Council Meeting	2			6				6						\$ -	14	\$2,520	
Task 8 - Bidding documents (Prepare RFB for City distribution)																	\$9,600
- Prepare Bid Docs	4			12			24		2		\$ 2,400			\$ 2,640	42	\$9,544	
Task 9 - Bidding support (Assist with review of bids)																	\$6,000
- Responding to RFIs	2			12			8							\$ -	22	\$3,800	
- Review Bids	2			6			4							\$ -	12	\$2,170	
TOTAL	101	55	22	356	108	68	382	320	18	\$ 45,800	\$ 45,400	\$ 86,000	\$ 1,500	\$ 196,570	1,430		\$ 454,200

Note:
This fee estimate is based on the assumptions listed in Attachment 4.

Attachment 6. Proposed changes to T&Cs

Upon review of the Agreement terms, we agree with many of the terms. In light of our historical success in coming to agreement on these types of matters with other agency clients, we envision no obstacles finalizing a mutually agreeable set of terms for use relative to this procurement. We respectfully ask that the City consider the following alternative language to the sections listed in the following page.

City of Depoe Bay
AGREEMENT FOR PROFESSIONAL SERVICES

THIS AGREEMENT is made this _____ day of _____, 2022, between City of Depoe Bay ("City") an Oregon municipal corporation, _____ ("Contractor") an _____, for the _____ ("Project"). In consideration of mutual covenants hereinafter set forth, the parties agree as follows:

All terms of the following exhibits are hereby incorporated by reference into this Contract, and Contractor agrees to comply with each:

- (1) Exhibit A – Oregon Public Contracting Requirements for Goods and Service Contracts
- (2) Exhibit B – Request for Proposals
- (3) Exhibit C – Contractor Proposal

1. Scope of Work. Contractor shall provide all labor, materials, equipment, installation and maintenance services, as specified in the attached Exhibits B and C (the "Project").

2. Term. The term of this Contract shall extend from its execution to project completion on or before _____, unless extended for additional periods of time upon written mutual agreement of both parties. Notwithstanding this Term, City reserves the right to terminate this Contract as outlined in this Agreement.

3. Compensation.

(a) Contract Price. Contractor shall complete Project as defined above and in the attached exhibits for a maximum not to exceed total fee of \$_____.

(b) Payments. Contractor shall submit to the City for payment an itemized invoice in a form sufficient in detail to determine the work performed for the amount requested. The form shall be approved by the City. Invoices shall be submitted monthly, or at such other interval as is specified by the Contract Manager. The City shall process payment in its normal course and manner for accounts payable. The City shall not be obligated to make payment in less than thirty (30) days from the date the invoice is received. Contractor shall not invoice for any amounts in excess of the Contract Price.

4. Permits. City will be responsible for obtaining all permits, approvals and authorizations necessary for the project.

5. Termination for Convenience. This Contract may be terminated by mutual consent of the parties upon written notice. In addition, City may terminate all or part of this Contract upon determining that termination is in the best interest of City by giving seven (7) days' prior written notice of intent to terminate, without waiving any claims or remedies it may have against Contractor. Upon termination under this paragraph, Contractor shall be entitled to payment in accordance with the terms of this Contract for Contract work completed and accepted before termination less previous amounts paid and any claim(s) City has against Contractor. Pursuant to this paragraph, Contractor shall submit an itemized invoice for all unreimbursed Contract work completed before termination and

all Contract closeout costs actually incurred by Contractor. City shall not be liable for any costs invoiced later than thirty (30) days after termination unless Contractor can show good cause beyond its control for the delay.

6. Termination for Cause. City may terminate this Contract effective upon delivery of written notice to Contractor, or at such later date as may be established by City, under any of the following conditions:

(a) If City funding is not obtained and continued at levels sufficient to allow for purchases of the indicated quantity of services. The Contract may be modified to accommodate a reduction in funds.

(b) If federal or state regulations or guidelines are modified, changed, or interpreted in such a way that the services are no longer allowable or appropriate for purchase under this Contract or are no longer eligible for the funding proposed for payments authorized by this Contract.

(c) If any license or certificate required by law or regulation to be held by Contractor to provide the services required by this Contract is for any reason denied, revoked, or not renewed.

7. Termination for Default. Either City or Contractor may terminate this Contract in the event of a breach of the Contract by the other. Prior to such termination, the party seeking termination shall give to the other party written notice of the breach and intent to terminate. If the party committing the breach has not entirely cured the breach within fifteen (15) days of the date of the notice, then the party giving the notice may terminate the Contract at any time thereafter by giving a written notice of termination.

If Contractor fails to perform in the manner called for in this Contract or if Contractor fails to comply with any other provisions of the Contract, City may terminate this Contract for default. Termination shall be effected by serving a notice of termination on Contractor setting forth the manner in which Contractor is in default. Contractor shall be paid the Contract price only for equipment installed and services performed in accordance with the manner of performance as set forth in this Contract.

8. Remedies. In the event of breach of this Contract, the parties shall have the following remedies:

(a) If terminated under paragraph 7 by City due to a breach by Contractor, City may complete the work either itself, by agreement with another contractor, or by a combination thereof. If the cost of completing the work exceeds the remaining unpaid balance of the total compensation provided under this Contract, then Contractor shall pay to City the amount of the reasonable excess.

(b) In addition to the above remedies for a breach by Contractor, City also shall be entitled to any other equitable and legal remedies that are available.

(c) If City breaches this Contract, Contractor's remedy shall be limited to termination of the Contract and receipt of Contract payments to which Contractor is entitled.

(d) City shall not be liable for any indirect, incidental, consequential, or special damages under the Contract or any damages arising solely from terminating the Contract in accordance with its terms.

(e) Upon receiving a notice of termination, and except as otherwise directed in writing by City, Contractor shall immediately cease all activities related to the services and work under this Contract.

9. Standard of Care. Contractor warrants that the work to be performed pursuant to this Contract shall be done in a good and workmanlike manner and will conform to the degree of learning and skill ordinarily ~~exercised~~possessed by similar professionals in good standing, in the same locality and under the same circumstances, and and highest standards prevalent in the industry or business most closely involved in providing similar ~~the~~ equipment and services as City is purchasing.

10. Reports. The Contractor shall provide City with reports as detailed in Contractor's proposal, at a minimum of once per month, outlining the Project progress, issues of concern and budget status.

11. Change Orders. City reserves the right to order changes to the equipment and services to be provided herein. Contractor and City shall determine a fair and equitable cost and, if required, additional time for such changes. All such changes shall be ordered and agreed to in writing by both parties.

12. Confidentiality. Contractor shall maintain the confidentiality, both external and internal, of any confidential information to which it is exposed by reason of this Contract. Contractor warrants that its employees assigned to this Contract shall maintain necessary confidentiality.

13. Security and Substance Check. Contractor agrees that each of its employees and subcontractor's employees involved in this Project may, at the option of City and in compliance with Contractor policy, be subject to a security background check and/or substance abuse testing.

14. Contract Manager and Notice. City's representative for the Project shall be City Public Works Director Brady Weidner ("Contract Manager"). Any required or permitted notices hereunder must be given in writing at the address of each party set forth below, or to such other address as either party may substitute by written notice to the other in the manner contemplated herein, by one of the following methods: hand delivery; registered, express, or certified mail, return receipt requested, postage prepaid; or nationally-recognized private express courier.

15. Warranty. Contractor's warranty is as stated within Exhibit A. City shall notify Contractor of any services not performed in accordance with the Standard of Care set forth in Section 9, and Contractor shall re-perform such services at its sole cost and expense. Contractor further warrants that all materials, equipment, and/or services provided under this Agreement shall be fit for the purpose(s) for which intended, for merchantability, that material and equipment shall be properly packaged, that proper instructions and warnings shall be supplied, and that the Project shall conform to the requirements and specifications herein. Acceptance of any service and inspection incidental thereto by City shall not alter or affect the obligations of Contractor or the rights of City.

16. Insurance. Contractor shall maintain in force for the duration of this Contract the insurance coverages specified below. Each policy required shall be written as a primary policy, not contributing with or in excess of any coverage which City may carry. City may request that Contractor provide certificates of coverage prior to commencement of the Work. Unless otherwise specified, each policy

shall be written on an occurrence form with an admitted insurance carrier licensed to do business in the state of Oregon. Failure to maintain any insurance coverage required by this Contract shall be cause for immediate termination of this Contract by City.

(a) Commercial General Liability. Contractor shall maintain a broad form commercial general liability insurance policy with coverage of not less than \$1,000,000 combined single limit per occurrence, and \$2,000,000 aggregate, for bodily injury, personal injury, or property damage. The policy shall contain an endorsement naming the City as an additional insured and providing that the interest of City shall not be affected by Contractor's breach of policy provisions.

(b) Automobile Liability. Contractor shall maintain an automobile liability insurance policy with coverage of not less than \$1,000,000 combined single limit per occurrence for bodily injury, personal injury, or property damage. The coverage shall include both hired and non-owned auto liability.

(c) Workers' Compensation Insurance. Contractor shall comply with the Oregon Workers' Compensation law by qualifying as a carrier-insured employer or as a self-insured employer and shall strictly comply with all other applicable provisions of such law.

(d) Professional Liability Insurance. Contractor shall obtain, maintain and keep professional liability insurance insuring the Contractor against errors or omissions of the Contractor in an amount of not less than \$1,000,000. Such insurance may be on a "claims made" basis. If on a "claims made" basis, the Contractor shall maintain continuous insurance coverage for a period of not less than two (2) years following completion of this Contract.

17. Indemnity; Waiver of Consequential Damages. To the fullest extent permitted by law, the Contractor shall indemnify, and hold harmless the, and defend City and its representatives, officers, directors, and employees from any loss or claim made by third parties, including legal fees and costs of defending actions or suits resulting directly or indirectly to the extent caused by ~~from Contractor's~~ negligent performance and negligent provision of materials or fault of by Contractor, its employees, representatives, or subcontractors arising out of the work performed or goods provided under this Agreement. If the loss or claim is caused by the joint concurrent negligence or other fault of City and Contractor, the loss or claim shall be borne by each in proportion to the degree of negligence or other fault attributable to each.

In no event shall City or Contractor be liable to the other party hereto for incidental, indirect, special, punitive or consequential damages, nor lost profits or revenues, regardless of the cause(s) thereof and notwithstanding the form of action.

Contractor shall defend City from claims covered under the indemnification section at Contractor's sole cost and expense until such time (1) as an arbitration panel or a court of competent jurisdiction determines that City is liable in whole or in part for the loss or claim caused by City's negligence or (2) until City and Contractor mutually agree to allocate the liability.

18. Force Majeure. This section applies in the event that either party is unable to perform the obligations of this Agreement because of a Force Majeure event as defined herein, to the extent that the Agreement obligation must be suspended. A Force Majeure event is an event that prohibits

performance and is beyond the [reasonable](#) control of the party. Such events may include natural or man-made disasters, or an action or decree of a superior governmental body which prevents performance. Should either party suffer from a Force Majeure event and be unable to perform, such party shall give notice to the remaining party as soon as practical and shall do everything possible to resume performance. Upon receipt of such notice, the parties shall be excused from such performance as it is effected by the Force Majeure event for the period of such event. If such event effects the delivery date or warranty provisions of this Agreement, such date or warranty period shall automatically be extended for a period equal to the duration of such event.

19. Independent Contractors. It is the intention and understanding of the parties that Contractor is an independent contractor and that City shall be neither liable for nor obligated to pay sick leave, vacation pay or any other benefit of employment, nor to pay any social security or other tax that may arise as an incident of employment. Contractor shall pay all income and other taxes as due. Industrial or other insurance that is purchased for the benefit of Contractor shall not be deemed to convert this contract to an employment contract. It is recognized that Contractor may or will be performing work during the term for other parties and that City is not the exclusive user of the services that Contractor provides.

20. Assignment. Contractor shall not assign or subcontract any of its obligations under this Agreement without City's prior written consent, which may be granted or withheld in City's sole discretion. Any subcontract made by Contractor shall incorporate by reference all the terms of this Agreement. City's consent to any assignment or subcontract shall not release Contractor from liability under this Agreement or from any obligation to be performed under this Contract, whether occurring before or after such consent, assignment, or subcontract.

21. Ownership of Work Product. With the exception of the Contractor's pre-existing intellectual property, patents and any and all improvements thereto, all other work performed by the Contractor or subcontractors under this Contract shall be considered work made for hire, and shall be the property of the City, [subject to payment therefor](#). The City shall own all other data, documents, plans, copyrights, specifications, working papers and other materials produced in connection with this Contract. On completion or termination of this Contract, the Contractor shall deliver these materials to the Contract Manager. The Contractor hereby assigns to the City all other rights, title and interest, including but not limited to copyright rights, all notes, designs, drawings, specifications, technical data reports, computer programs and documentation, and other materials resulting from its work under this Contract. [For the avoidance of doubt, all of Contractor's deliverables provided hereunder are for the exclusive use of the City for the intent and purposes provided, and Contractor shall not be liable for any other use, reuse or transfer thereof.](#)

22. Governing Law. This Agreement is to be governed by and under the laws of the State of Oregon.

23. Consent to Jurisdiction. The parties hereby consent to jurisdiction of the Lincoln County Circuit Court, Lincoln County, Oregon, over all legal matters pertaining to this Agreement, including, but not limited to, its enforcement, interpretation or rescission.

24. Public Contracting Requirements and Business License. Subject to the Standard of Care set forth in Section 9, Contractor shall comply with all federal, state and local laws and ordinances applicable to the work under this agreement, including, without limitation, applicable provisions of the Oregon Public Contracting Code as more particularly set forth in Exhibit A. Contractor shall be licensed to do business within the City, as required by City Ordinance.

25. Arbitration. If any disputes, disagreements or controversies arise between the parties pertaining to the interpretation, validity, rescission or enforcement of this Agreement, the parties ~~shall~~may, upon the request of either party, submit such dispute to binding arbitration. Except as otherwise provided in this Agreement, arbitration shall be requested by delivering to the other party a written request for arbitration. Within ten (10) days of receipt of such request, the parties shall select a mutually agreeable arbitrator and designate mutually agreeable rules of arbitration. If the parties cannot agree upon an arbitrator within ten (10) days, an arbitrator may be appointed by the presiding judge of the Lincoln County Circuit Court, upon the request of either party submitted in accordance with ORS Chapter 36. If the parties have not designated mutually agreeable rules of arbitration at such time as the arbitrator is appointed, the arbitrator shall have the discretion to adopt rules for the arbitration, and the arbitrator's decision shall be binding upon the parties. All arbitration shall take place in Lincoln County, Oregon unless the parties both agree to have the matter arbitrated elsewhere.

26. Attorney Fees. If suit, action or arbitration is brought either directly or indirectly to rescind, reform, interpret or enforce the terms of this Agreement, the prevailing party shall recover and the losing party hereby agrees to pay reasonable attorney fees incurred in such proceeding, in both the trial and appellate courts, as well as the costs and disbursements. Further, if it becomes necessary for City to incur the services of an attorney to enforce any provision of this Agreement without initiating litigation, Contractor agrees to pay City's attorney fees so incurred. Such costs and fees shall bear interest at the maximum legal rate from the date incurred until the date paid by losing party.

27. Facsimile Signatures. The delivery of signatures to this Agreement by facsimile or other electronic transmission shall be binding as original signatures. This Agreement is not effective unless and until it is signed by an authorized representative of each party.

28. Entire Agreement. This Agreement shall be the exclusive agreement between the parties for the Project. No modification of this Agreement shall be effective unless in writing and signed by an authorized representative of both parties, except as otherwise authorized herein.

CITY:

CONTRACTOR:

CITY OF DEPOE BAY

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Address for giving notices:

City of Depoe Bay

P.O. Box 8

Depoe Bay, OR 97341

Address for giving notices:

EXHIBIT A

PUBLIC CONTRACTING REQUIREMENTS FOR GOODS AND SERVICE CONTRACTS

Following are contract provisions required by Oregon law for public contracts. To the extent applicable, each of the following provisions shall apply to the Contract.

1. Contractor shall pay promptly, as due, all persons supplying labor or materials for the prosecution of the work provided for in the contract, and shall be responsible for such payment of all persons supplying such labor or material to any Subcontractor. ORS 279B.220(1).
2. Contractor shall promptly pay all contributions or amounts due the Industrial Accident Fund from such Contractor or Subcontractor incurred in the performance of the contract. ORS 279B.220(2).
3. Contractor shall not permit any lien or claim to be filed or prosecuted against the Contracting Agency on account of any labor or material furnished and agrees to assume responsibility for satisfaction of any such lien so filed or prosecuted. ORS 279B.220(3).
4. Contractor and any Subcontractor shall pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.617. ORS 279B.220(4).
5. Contractor shall promptly, as due, make payment to any person, copartnership, association, or corporation, furnishing medical, surgical and hospital care or other needed care and attention, incident to sickness or injury, to employees of such Contractor, of all sums which the Contractor agrees to pay for such services and all monies and sums which the Contractor collected or deducted from the wages of employees pursuant to any law, contract or agreement for the purpose of providing or paying for such service. ORS 279B.230(1).
6. All subject employers working under the contractor are either employers that will comply with ORS 656.017, or employers that are exempt under ORS 656.126. ORS 279B.230(2).
7. Contractor shall pay employees for hours worked as required by ORS 279B.235(1) or ORS 279B.235(3), as applicable. ORS 279B.235.
8. The Contractor must give notice to employees who work on this contract in writing, either at the time of hire or before commencement of work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and the days per week that the employees may be required to work. ORS 279B.235(2).
9. All sums due the State Unemployment Compensation Fund from the Contractor or any Subcontractor in connection with the performance of the contract shall be promptly so paid. ORS 701.430.

10. Contractor certifies compliance with all applicable Oregon tax laws, in accordance with ORS 305.385.
11. Contractor certifies that it has not discriminated against minorities, women or emerging small business enterprises or a business enterprise that is owned or controlled by or that employs a disabled veteran as defined in ORS 408.225 in obtaining any required subcontractors. ORS 279A.110.
12. As used in this section, "nonresident contractor" means a contractor that has not paid unemployment taxes or income taxes in the state of Oregon during the 12 calendar months immediately preceding submission of the bid for the contract, does not have a business address in this state, and stated in the bid for the contract that it was not a "resident bidder" under ORS 279A.120. When a public contract is awarded to a nonresident contractor and the contract price exceeds \$10,000, the contractor shall promptly report to the Department of Revenue on forms to be provided by the department the total contract price, terms of payment, length of contract and such other information as the department may require before the bidder may receive final payment on the public contract. ORS 279A.120.

